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Testimony of

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Introduction

Chairman Mack, Representative Stark, members of the Committee, thank you for the opportunity to appear before the Joint Economic Committee at this important High Tech Summit on "Removing Barriers to the New Economy." I am Mark Leavitt[1], Chairman of the board of MedicaLogic/Medscape, Inc. I am joined today by my colleague, George Lundberg, M.D.[2], Executive Vice President and Editor and Chief. Our company represents a combination of approaches that bring critical, timely knowledge to physicians, other healthcare professionals, and consumers.

As both a physician an engineer, I began 15 years ago with a vision of moving paper medical records to the personal computer. Since that time, the company I started in my bedroom has developed and deployed online health records technology that is the most powerful and sophisticated available. As a result of MedicaLogic's recent merger with Medscape, Inc., we have joined with the leading source of peer-reviewed medical information on the Internet with this powerful technology. We are committed to making the whole greater than the sum of the parts. By integrating patient-specific online medical records, life long diagnostic information, practice protocols and other clinical decision support systems with extraordinarily deep and broad medical information and making that available to physicians and other clinicians at the point of patient care – wherever that might be – MedicaLogic/Medscape will advance the quality of clinical care while bring new economic efficiencies to the practice of medicine. None of this would be possible without the capabilities brought by high technologies and the Internet.

In my oral testimony today, I will focus on MedicaLogic/Medscape's mission: to provide health information that matters – improving quality, saving time, costs, and even lives – to extend the point of care beyond the physician's exam room, bringing the patient and physician together at any location, at any time, and influencing the major decisions in health care today. This written testimony will address efforts by healthcare internet leaders to develop a framework and process for industry self-regulation that warrants consumer confidence. Also, I will discuss how MedicaLogic/Medscape's commitment to protect the privacy of personal health information and how technology makes those protections possible.

MedicaLogic/Medscape's Mission

Today, MedicaLogic/Medscape makes online health records systems available to both patients and physicians. At the end of March, we had over 12,000 clinicians maintaining charts for more than 9 million patients. We also operate two of the most respected health and medical information sites on the Internet – medscape.com for professionals and CBSHealthWatch for consumers. Together, they had more than 2.2 million registered members at the end of March – including over 350,000 physicians.

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[1] Dr. Leavitt holds a doctorate from Stanford University in electrical engineering and a doctor of medicine from the University of Miami. Board-certified in internal medicine and geriatrics, Dr. Leavitt practiced full-time for 10 years, and then served as medical director of information systems at Providence Health System for two years.

[2] For the last twenty years, Dr. Lundberg has been at the forefront of medical publishing, serving for 17 years as the Editor of the Journal of the American Medical Association and from 1999 forward as our Editor-in-Chief.

The Power of Online Health Records

Our online health records system – we call it Logician – includes medical records and charts relative to individual patients built and maintained by the patient's physician. But it is also much more. The package of tools integrated in Logician permit the clinician to maintain, archive, retrieve and search records with little effort. Logician accurately codes patient encounters for claims submission. Logician allows the clinician to electronically retrieve lab results, prescribe medicine online, query decision support systems and be reminded when the patient is due for another visit. Logician can be customized to meet the individual clinician's style. It is intelligent and learns as it is used so that it actually becomes easier to use over time. And it is literally available wherever the clinician has a computer and Internet connection. In the near future, clinicians will be able to access their electronic medical records through a variety of wireless devices including tablets, personal digital assistants and web-enabled cell phones.   A demonstration of Logician can be seen at our website: http://www.medicalogic.com/products/logician_internet/demo.html.

Patients whose physicians use Logician can access an online summary of their medical records, including lab test results through a special patient site: www.98point6.com. They can review their records with the doctor, correcting errors or just adding things they may have forgotten to mention during earlier visits. And they have a chance to take those records along with them, with all of the security and privacy they need.

Avoiding Medical Errors

By putting high quality, timely information online, we improve healthcare for consumers. For example, in March we were able to respond rapidly to the voluntary removal from the market of the diabetes drug, Rezulin. Physicians using our online health records were able to instantly determine which of their patients were taking the drug. Within an hour after the news release, warning calls were being made to the patients. At the same time, our Web sites were issuing warnings to visitors, both on the Web sites and via electronic mail.

We also know that online health records and up-to-date medical information can help to reduce medical errors. As the Institute of Medicine informed us, the number of people who die each year from medical errors is equivalent to the crash of a jumbo jet every single day.   We want to use our technology to help solve this national problem.

Bridging the Digital Divide

At MedicaLogic/Medscape, we believe that state of the art healthcare information technologies should be available to meet the healthcare needs of all Americans, and we've decided to do our part to help achieve this goal. Very recently, working with the Health Resources and Services Administration and its Bureau of Primary Healthcare, we donated about one million dollars worth of our online records products to 160 community health centers. This is a pilot program in which we are giving clinicians the ability to record, access and share legible, up-to-date medical records online for the benefit of their patients, regardless of their ability to pay. Following the pilot, we expect to provide online records capability to the approximately 3,000 federally supported community health centers throughout the nation.

We are doing this because we believe so strongly in the application of healthcare technology. When you see how technology can streamline a physician's office, identify a new treatment or keep a patient away from a potentially dangerous drug, you can understand why we call this "health information that matters."

Participation in industry efforts to build consumer confidence

MedicaLogic/Medscape is participating in several efforts to create codes of ethics and conduct for healthcare web sites. Last September, the company published on Medscape.com what is believed to be the online healthcare industry's first advertising policy covering a wide range of ethical issues. Subsequently, the company has taken an active role in two important healthcare internet industry initiatives:

- The Hi-Ethics Code is a set of 14 operating principles developed by a coalition of 20 of the most widely used Internet health sites and content providers. Hi-Ethics companies agree to provide online health services that reflect high quality and ethical standards. The Hi-Ethics Code is dedicated to meeting the goals of providing health information that is trustworthy and up-to-date, clearly identifying online advertising and disclosing sponsorships or other financial relationships that significantly affect our content or services, keeping personal information private and secure, and employing special precautions for any personal health information; and empowering consumers to distinguish online health services that follow the principles in the code from those that do not.

- The eHealth Code of Ethics was created by the eHealth Ethics Initiative that has been organized by the nonprofit Internet Healthcare Coalition. The eHealth Ethics Initiative is an ongoing international agenda organized by the Coalition. It was launched at the Coalition's annual meeting in New York last October 13 after MedicaLogic/Medscape's Dr. Lundberg told the group: "The essence of professionalism is self-governance. Just as the International Committee of Medical Journal Editors, founded in 1978, has set the standards for how medical journal authors and editors should behave, the leaders of the eHealth information enterprise should now set common standards for ethical behavior. I call upon the Internet Healthcare Coalition to now set international standards that can become commonly accepted." The Coalition then launched the eHealth Ethics Initiative to create the eHealth Code of Ethics. The IHC is devoted to educating stakeholders about the role of the Internet in healthcare. Principles of the Code – covering candor, honesty, quality, informed consent, privacy, professionalism, responsible partnering and accountability – reflect broad-based participation by leaders in industry, academe and government, as well as patient and consumer advocates and input from the general public.

The company also supports the HON Code of Conduct (HONcode) for medical and health Web sites. That code was developed by the Health on the Net Foundation, a Geneva, Switzerland-based organization guiding the growing community of healthcare consumers and providers on the World Wide Web to sound, reliable medical information and expertise.

The new ethics codes identify several general principles that deserve protection. By following them, health care web sites can develop consumer confidence and trust. Among the most important principles are the following:

- *Information about people's health is special.* Unlike some other kinds of information, health information is very sensitive. Recent surveys have shown that consumers belie ve this type of information should receive special privacy protections. Both the Hi-Ethics and eHealth codes contain special, stricter rules for medical or health information that comes from consumers. The Hi-Ethics Code also requires that its members follow the FTC-recommended fair information practices on the web sites even for non-health related personal information.

- *For consumers to trust health care web sites, they must understand how the sites generate information.* In many cases, the companies that operate health care web sites have complex relationships with other companies that may affect the way information is presented on their site. For example, some web sites allow sponsors to write about their products, then post that

information online. In other cases, advertising may not look like advertising, or the results of a search may list some companies higher up than other because of behind-the-scenes payments. Or the company that runs the web site itself may have a conflict of interest, because it sells products that are discussed on its site. Both codes address these issue by requiring defined editorial procedures and disclosures of financial relationships and other potential conflicts of interest.

- *The Internet cannot replace the relationship between a consumer and a health care professional.* Someday in the future, we may have the technology that allows physicians and other professionals to treat patients from hundreds of miles away, without ever physically meeting them. That day, however, is not today. The Internet can enable and facilitate relationships between health care professionals and patients, but it cannot replace them. Again, both codes clarify the appropriate use of the Internet in a way that avoids interfering with the relationship between patient and physician.

MedicaLogic/Medscape is participating in both the Coalition and Hi-Ethics efforts because we believe each hold out the opportunity of improving the quality of online healthcare information and services. We will continue to work with multiple ethics initiatives with the idea of achieving a cooperative implementation of their common goals. We are also continuing our own efforts. In fact, MedicaLogic/Medscape has been driving the process towards standard setting and ethical practices on its own health care web sites for some time now.

For example, our two information-based web sites, Medscape.com and CBSHealthWatch, have been widely praised as among the best in the industry for trusted and comprehensive health and medical information. Last September, the company published on medscape.com what is believe to be the eHealth industry's first advertising policy covering a wide range of ethical issues. Dr. Lundberg was instrumental in publishing what is acknowledged as the first major content evaluation code in the Journal of the American Medical Association (JAMA). Dr. Lundberg also helped to create and publish in JAMA the International Committee of Medical Journal Editors code, another of the early efforts to promote ethics on the medical Internet.

In addition, MedicaLogic/Medscape is a member of The eHealthcare Association (TeHA), which represents a wide variety of companies in the area of technology and healthcare. Dr. Leavitt is a member of the board of directors of TeHA. TeHA is the trade association of health care organizations using the Internet to improve clinical quality and economic efficiencies. While a young, rapidly growing association, TeHA is comprised of approximately 60 leaders in the internet health care community including large well know companies like IBM and small emerging companies with vision and energy. MedicaLogic is pleased to have been involved in the formation of this new effort to give voice to the vision and perspectives of the eHealthcare industry.

Technology can improve privacy

Privacy is an extremely important issue for MedicaLogic/Medscape. People who use our software and web sites choose to share especially sensitive information with us. We are committed to protecting that information from any unauthorized disclosure or use. We believe that technology can improve privacy, especially in the area of health information. That is not to say that technology is without risk, or that the Internet does not pose major challenges in the privacy area. While we are working on the self-regulatory initiatives described above to improve privacy protections and restore consumer confidence, as a general matter we would support well-reasoned new federal legislation or regulation to improve and standardize privacy protections for health information.

As an example of how Internet technology can improve privacy protections, consider our most recent online health record product, Logician Internet (LI). Using LI, physicians can store information about their patients on the Internet. The physician gains enormous benefits over paper records through this approach. We back up their charts, maintain their database, and provide access security. The level of security we provide is much greater than the physician would likely be able to implement for their own paper records or data stored on their personal computer. Our data center in San Francisco features state-of-the-art biometric security to restrict physical access, and access to the data over the Internet is through a secure, encrypted connection. When the new regulations on confidentiality and security of health information under the Health Insurance Portability and Accountability Act of 1996 (HIPAA) are finalized, our software will help physicians and others meet the new regulatory requirements (for example, by providing audit trails and restrictions on access).

We believe that, when it comes to privacy, moving from existing paper-based systems for health records to the new electronic systems can be a change for the better. One common fallacy is that the older paper-based systems are more secure than electronic systems. By its nature, paper is anonymous. A piece of paper cannot tell us where it has been stored, who has looked at it since its creation, or whether anyone has made a copy of it or faxed it to a different location. Properly designed computer systems like ours can record all this information. A piece of paper inadvertently left on a desk stays there until someone notices it and takes action (which could include inappropriate action, like stealing the paper or copying it). A computer screen inadvertently left on that shows an electronic medical record can blank itself by activating a password-protected screen saver, can record or prevent any attempts to copy or alter the record, or can log the user off after a set period of time.

While electronic and online systems can improve privacy protections over paper systems, they also raise new and unique risks of their own. As a company, we are fortunate to have significant experience in dealing with these new challenges. We have provided software and services that process personal healthcare information for over a decade (for example, through our client/server electronic medical records product, Logician Enterprise). As a long time business partner to the health industry, we have always recognized the importance of maintaining the confidentiality of individually identifiable health information. We have integrated comprehensive policies and procedures for maintaining patient confidentiality into our products and services in use at over 350 clinics nationwide. Our customers, both large integrated delivery networks as well as individual practitioners who use our online health records software, have long had confidence that identifiable health information is confidential, protected, and secure. In a competitive marketplace, it simply would be foolhardy for us not to run our business with appropriate safeguards.

In addition to storing health records generated by professionals, we also gather health information from users of our web sites. We understand the sensitivity of this information, and our duty to act responsibly with respect to it. As discussed previously in this written testimony, we have endorsed the eHealth Code of Ethics, which states that "People who use the Internet for health-related reasons have the right to be informed that personal data may be gathered, and to choose whether they will allow their personal data to be collected and whether they will allow it to be used or shared. And they have a right to be able to choose, consent, and control when and how they actively engage in a commercial relationship." We intend to keep any personal information consumers share with us private and secure, and to employ special precautions for any personal health information. If we collect health-related personal information, we will only use it for the purposes for which a reasonable consumer would expect us to use it unless the consumer agrees otherwise (for example, to process an order from an online pharmacy requires us to pass information to our online pharmacy partner). We also intend to hold third parties that work with

us to these same standards with respect to privacy of health information, creating a chain of trust that extends protection to our users across all our commercial relationships.

In some cases, we do intend to use personally identifiable health information as part of our business. However, before we do, we recognize that we must first obtain the fully informed consent of the consumer. Where the source of the information is an online medical record created by a health care professional, we must also seek the consent of the professional. As we commented in a recent white paper we prepared on electronic medical records privacy, a critical component of the doctor-patient relationship is trust. Patients trust their physicians to act on their behalf to promote the patients' health and well being. Ethical medical practice dictates that patients' privacy rights and preferences with respect to the confidentiality of their health information be protected by all users of personally identifiable health information. In the world of online health records, all the same privacy principles apply. To continue in our business, we must extend the circle of trust to include our partners and ourselves. Therefore, to the extent we (or anyone else) intend to make uses of information in online health records not related to care or reimbursement, both patient and caregiver must understand the use and agree to it in advance.

Finally, MedicaLogic/Medscape supports appropriate legislation or regulation to support privacy of health information. The current patchwork of state and federal laws creates a difficult environment for compliance, while leaving many aspects of a consumer's personal health information exposed. As a result, the keepers of personal health information struggle to comply with obscure and varied rules that – even if correctly applied – do not offer necessary privacy protections. In part, this problem exists because of the sector-specific approach to privacy in the United States. For example, we have a federal law that governs the privacy of video rental records, but none that protects medical records. We believe that new legislation, if carefully crafted, could advance the interests of consumers, physicians, and others in the healthcare industry. By harmonizing state requirements and developing a federal standard, new legislation could create a level playing field for companies working with health information, while giving patients new rights and safeguarding their personal information. However, we believe that any such new legislation or regulation must apply to all keepers of health information, not just those who do business on the Internet. We look forward to cooperating with any interested parties to work towards this goal.

Conclusion

Again, Mr. Chairman, Mr. Stark, Member of the Committee, on behalf of MedicaLogic/Medscape's 1,000 employees, the 12,000 clinicians that use our products and the millions of patients whose care is improved because of our work, I thank you for this opportunity.

Information technology offers the nation an opportunity to advance the quality of care while realizing significant economic efficiencies in ways that were previously beyond our reach. We look forward to working with your committee and with others in the legislative and administrative branches of the federal government in the development of public policies which meet the healthcare needs of the American people.

I would be happy to answer any questions.