

Cisco Internet Business Solutions Group, Healthcare Practice

The Healthcare Community

While there has been much discussion in the healthcare industry about escalating costs and increasing government mandates for quality and safety, a number of other pressing issues are taking center stage, impacting the entire healthcare business model worldwide.

Medical knowledge and related information are expanding at an unprecedented rate, and using technology to help medical professionals connect to and find the right information is challenging. Demographics are shifting, as Generations X and Y become the newest consumers and providers of healthcare. Providers, for the most part, have been baby boomers; however, the latest medical school graduates and consumers within Gen X and Y are demanding more personalization throughout the healthcare system.

The boundaries of healthcare are also blurring. The question raised by both the healthcare community and policymakers is, "Where does healthcare begin and end in terms of health and disease?" Policymakers are increasingly faced with the reality that healthcare problems are not limited to just healthcare institutions. There is an entire social care aspect that deals with the concept of "aging well." How do healthcare institutions and governments enable people to age well at home?

Furthermore, as technology continues to proliferate, the healthcare industry remains significantly underinvested with regard to information and communications technology (ICT), spending only 2 percent of gross revenues on health ICT, compared to other information-intensive industries such as financial services, which spends upward of 10 percent.¹

The healthcare community is under continuous pressure to become more efficient and productive. According to Forrester Research, improved communication among caregivers can reclaim the nearly 30 percent of time staff spend looking for people needed to do their jobs. Investments in supply chain and asset management can reduce some of the 20 percent excess inventory in expensive medical items hospital staff hoard because they cannot find them when needed.² This type of fundamental improvement is needed to free resources, expand insurance coverage, and address the cost burden of both an aging population and medical innovation.



Cisco Internet Business Solutions Group (IBSG)

Opportunities for Healthcare Providers

Healthcare companies can manage costs by implementing ICT to achieve operational efficiencies and reach more patients with limited resources. Imperatives that have technological components include:

- **Information exchange**—patients and caregivers need access to information in disparate information systems, using a secure, safe, and reliable network.
- **Productivity**—requires significant technology to improve how medicine is practiced and delivered in the midst of chronic labor shortages (such as mobile devices for communicating with staff and locating colleagues and supplies, and network platforms that connect clinicians to scarce expert resources such as specialists to provide remote care).
- **Patient-centered care**—patients will expect more personalized and customized care, more access to their own information, and the ability to interact with care providers and payers, much in the same way that they interact with other business or service organizations. At the same time, providers will have to demonstrate the value of care and services.
- **Innovation**—accelerate innovation with new product development to improve shrinking margins.

By increasing access to information, facilitating rapid communication, and reaching remote locations, ICT provides clinicians, healthcare leaders, and politicians concerned with healthcare the opportunity to manage and provide care faster—at lower costs and at higher levels of convenience for their patients. Internet-based technologies allow on-demand access to experts and healthcare for homebound patients, remote consultation, and other collaboration and communication opportunities that can transform the way healthcare services are delivered, managed, and experienced throughout the world.

Transforming the Way Health Services Are Designed and Delivered

The Cisco® Internet Business Solutions Group (IBSG) Healthcare Practice is comprised of experts who—through proof-of-concept trials and small-scale demonstrations that are a few years ahead of mainstream markets—combine deep industry experience with solutions in ways never before implemented. Through our innovative strategies, we focus on helping healthcare businesses—from providers, medical device manufacturers, and pharmaceutical firms to every component of the healthcare value chain—reshape industry best practices and pave the way for increased collaboration, streamlined operations, and new healthcare delivery models. Our healthcare expertise is focused on three key areas:

Provider (Clinicians and Hospitals)

The Cisco IBSG Healthcare Practice helps providers reduce costs, increase revenue, and improve the delivery of care by facilitating the adoption of ICT. By educating hospitals about the benefits of sharing information electronically across clinical sites, laboratories, pharmacies, and emergency response units, our experts help organizations maximize efficiencies and reduce repetitious activities associated with healthcare.

- **Telemedicine Pilot Promises Change in Healthcare Delivery Models**—Scarce clinical resources and limited access to healthcare services are common problems in healthcare. In January 2008, the Scottish Centre for Telehealth and Cisco IBSG collaborated on the first Cisco HealthPresence™³ pilot, based at Aberdeen Royal Infirmary, to provide healthcare services to people living in rural communities of northeast Scotland. Patients visiting the emergency department agreed to remote-visit examinations by a doctor via the Cisco HealthPresence Pod, and then to another examination in-person by the same doctor. More than 90 percent of patients said they were 1) satisfied with the experience, 2) felt the visit was confidential, and 3) would recommend the service. Doctors found that an accurate diagnosis via Cisco HealthPresence is possible within the same amount of time it takes to diagnose patients in-person.
- **Matching Experts to Patients**—The Healthcare Interpreter Network (HCIN) of Northern California utilizes solutions from Cisco's Unified Communications product portfolio in one of the world's first voice- and video-over-IP call centers. The HCIN represents the work of a consortium of leading public hospitals, healthcare organizations, and technology companies. It addresses the challenge of how to communicate effectively with patients who speak limited English in order to deliver quality healthcare in a multicultural society. The HCIN system handles approximately 3,000 requests for interpreters each month. Lack of understanding about medications, preventative care, and self-care due to language barriers was reduced by 58 percent after HCIN was implemented.

Life Sciences

Our experts help life sciences companies significantly increase productivity and grow their businesses by optimizing Internet technology. This includes accelerating clinical trials and disseminating information about medical advances to the widest number of healthcare audiences by capturing and transmitting data electronically, detailing the properties of new products on the web via print and video, and improving salesforce effectiveness by increasing competence through e-learning.

Payer

Cisco IBSG healthcare experts work with insurance payers to simplify processes and decrease the cost of providing services to internal and external constituents, such as in call centers and claims-processing operations. We also work with payers and large employers to create business models that create new network offerings using telehealth technologies to improve access and lower healthcare costs, and we collaborate with providers and governments to solve problems that require public-private partnerships.

- **Building and Testing New Models for Healthcare Delivery**—The Cisco LifeConnections Center on the company's San Jose, California campus incorporates a full medical clinic, medical lab, pharmacy, childcare center, and fitness center for Cisco employees. The clinic showcases how the network serves as a platform for augmenting healthcare delivery. This initiative also demonstrates potential economic benefits for employers through an onsite clinic that serves employees on multiple campuses. In collaboration with UnitedHealth Group, Cisco's HealthPresence

technology was used to demonstrate the opportunities for insurers to create offerings for their employer customers.

- **Statewide Telemedicine Program**—Cisco, Molina Healthcare, and two community health centers in San Diego, along with the state of California, are working on an initiative to provide health and wellness services to underserved and uninsured communities throughout California. More than 15 sites will be equipped to deliver primary and specialty care telemedicine services using Cisco HealthPresence. This initiative moves beyond the clinical setting, demonstrating the value of a cost-efficient telemedicine network that scales the medical workforce and scarce clinical expertise by connecting facilities statewide in real time for patient care and education, and for clinician-to-clinician consultation or education.

The Cisco IBSG Healthcare Practice works with primary stakeholders across various healthcare sectors to develop actionable plans that save time and money, while implementing strategies that will help enhance long-term patient satisfaction. For more information about the capabilities of the Cisco IBSG Healthcare Practice, please visit our website, www.cisco.com/go/ibsg/healthcare, or contact:

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Endnotes

1. "Clinical Information Systems: Achieving the Vision," Raymond, B. and C. Dold, Kaiser Permanente Institute for Health Policy, 2002; "Correlates of Electronic Health Record Adoption in Office Practices: A Statewide Survey," Simon S.R., Kaushal R, Cleary P.D., et al, *Journal of American Medicine Information Association*, Vol. 14 (1), pps. 110–7, 2007; "Examining the Adoption of Electronic Health Records and Personal Digital Assistants by Family Physicians in Florida," Menachemi N., Perkins R.M., van Durme D.J., Brooks R.G, *Informatics in Primary Care*, Vol. 14 (1), pps. 1–9, PMID 16848961, 2006.
2. "Global Healthcare Information Trends," Kaveh Safavi, M.D., Cisco Internet Business Solutions Group Healthcare Practice, 2008.
3. Cisco HealthPresence was conceptualized, designed, and piloted by the Cisco IBSG Healthcare Practice. Using the network as a platform, Cisco HealthPresence combines the telecommunications capabilities of the Cisco TelePresence system to conduct remote exams. Cisco HealthPresence connects one patient to one or more doctors, personalizing and enhancing the patient experience, and making scarce and skilled resources readily available in the support of healthcare delivery.

More Information

Cisco Internet Business Solutions Group (IBSG), the company's global consultancy, helps CXOs from the world's largest public and private organizations solve critical business challenges. By connecting strategy, process, and technology, Cisco IBSG industry experts enable customers to turn visionary ideas into value.

For further information about IBSG, visit <http://www.cisco.com/go/ibsg>.



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