

Technologies Driving the Future of Healthcare: Cisco HealthPresence

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Our current healthcare system is taxed and struggling to meet today's healthcare needs. It focuses on treating—rather than preventing—illness, and is provider-centric rather than patient-centric. The net effect is expensive care that, while excellent at managing illness, does not give patients or providers the tools they need for health promotion and maintenance.

In addition, the current system simply doesn't respond to patients on their own terms. When patients need care, they generally visit a physician or hospital. As a result, they tend to "orbit" around the healthcare system, rather than actively participating in a system that responds to their specific needs.

This model of healthcare delivery is not sustainable for many reasons:

- There aren't enough physicians and nurses to meet the demands of an aging and increasingly ill population. By 2035, 25 to 30 percent of the U.S. population will be 60 years of age or older.
 - In 2003, 55.8 percent of the U.S. population had at least one of seven chronic illnesses, at a cost of \$1.3 trillion in direct and indirect expenses (12.5 percent of GDP). This is expected to rise to \$4.1 trillion by 2023.¹
- Expertise is insufficiently distributed to meet populations' needs. There are regulatory barriers to providing care across political borders in many parts of the world, notably the United States, making it difficult to provide access to the most cost-effective and knowledgeable experts, regardless of their location.
- It's difficult for providers to collaborate with other providers, and this costs hospitals billions of dollars a year in waste.
- Patients find it hard to see their physicians during available hours, and they are usually blocked from using alternative means of communications, such as telecare delivery, e-communication, and text messaging. Citizens are increasingly mobile and demand a healthcare system that accommodates them better.
- Despite this, only 43 percent of physicians have a website for their practice, and just 25 percent communicate regularly with patients online.²
- Hospitals and clinics are costly to build and maintain.
- Escalating costs are becoming unaffordable.



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These challenges act as walls that prevent us from providing optimal care delivery. Breaking down these barriers requires new ways of thinking about care. Care delivery must become more patient-centric so that healthcare is pervasive and easily available. Care must come to the patient, rather than always requiring patients to visit a healthcare facility.

Cisco HealthPresence: Transforming Healthcare Delivery

The ability to transform healthcare through new delivery models exists right now. Cisco HealthPresence™ is a transformative patient care-delivery concept that combines Cisco TelePresence with Cisco IP Call Center technologies and physiological information from diagnostic devices to create a live, “face-to-face visit” experience for patients and clinicians. (Cisco TelePresence™ combines life-size, ultra-high-definition video images [720p and 1080p], spatial audio, and interactive elements to create the feeling of being “in person” with participants in remote locations.)

Using the network as the platform, Cisco HealthPresence breaks the boundaries of geography and eases pressure from the increasing demand for expert services in any healthcare system—regionally, nationally, or globally. A clinical expert on the HealthPresence network can connect to any location where HealthPresence is available—even if it’s hundreds or even thousands of miles away. This represents an enormous opportunity to optimize the use of scarce expert resources while containing costs and offering a live, “face-to-face visit” experience.

Of course, individuals still will have in-person visits to the doctor, hospital, or clinic. But solutions such as Cisco HealthPresence offer the ability to augment and optimize the capacity and reach of care-delivery systems in a patient-friendly and convenient way.

Cisco HealthPresence Benefits

Cisco HealthPresence offers many benefits—financial and otherwise—to doctors, patients, and employers.

Doctors / Providers

- Healthcare professionals can anticipate new business or improved productivity, eliminating downtime and making themselves available for remote consultations and better customer service.
- A “teaching hospital” model can be employed to improve communication among healthcare providers. Patients can be seen by referring physicians and specialists at the same time to develop effective treatment plans.
- The integrated IP Contact Center provides for effective utilization of resources wherever they happen to be, creating a “virtual” care-delivery network.
- The Cisco HealthPresence Communication and Collaboration Platform enables real-time health information and electronic medical records, creating an improved operating environment while decreasing institutionalized inefficiencies of traditional care-delivery models.

Doctors and Patients

- As healthcare professionals become more scarce in many markets, solutions such as Cisco HealthPresence can draw on qualified resources regionally, nationally, or globally to deliver virtual care in a high-quality setting.
- New financing models can be developed and supported for patients who are insured, those who are publicly funded, the uninsured, or the privately funded (self-pay).
- One-stop convenience can be accommodated, with patients being referred to specialists on the spot, thus reducing inefficiencies and loss of productivity associated with referrals and follow-up visits.
- Cisco HealthPresence can extend care delivery to rural or hard-to-reach sites, reducing patient travel costs and improving the quality of life for many patients in medically underserved areas.
- Cisco HealthPresence is a “green” solution, allowing patients easier access to healthcare. This is a particular benefit in remote areas or congested cities, where it can take hours to travel a short distance.

Employers

- With Cisco HealthPresence, employers can expect increased productivity in corporate health settings.
- Provides employees with a quick and convenient way to consult privately with doctors about a wide range of medical issues, such as cold and flu symptoms, sinus infections/allergies, and blood pressure screening/management.
- Employees save time and receive expert medical opinions without having to drive to the doctor’s office.

Cisco HealthPresence Results

Cisco HealthPresence has already been tested in both the United States and Europe, with impressive results. Two pilots—in Aberdeen, Scotland and San Jose, California—indicated that more than 90 percent of patients were satisfied with the remote care experience, and would recommend Cisco HealthPresence to others. Overall results included the following highlights:

- More than 95 percent of patients were satisfied with the Cisco HealthPresence experience.
- More than 95 percent of patients felt that their doctor visit was confidential.
- More than 90 percent would recommend the service to others.

Conclusion

The network as the platform allows for new care-delivery models that improve access, contain costs, and offer convenient alternatives to an in-person consultation. The technologies required to transform the healthcare industry are available today. Now the industry must formulate, evaluate, select, and deploy innovative models enabled by new forms of network-based communication and collaboration capabilities. Cisco HealthPresence addresses access, cost, and convenience in a highly secure environment

that preserves the quality of interaction to which patients and providers doctors are accustomed.

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Endnotes

1. Source: DeVol, Ross, Bedroussian, "An Unhealthy America: The Economic Burden of Chronic Disease," Milken Institute, October 2007.
2. Source: Manhattan Research, Taking the Pulse, v6, 2006.