

Coming to Your Medical Care: Broadband

By John R. Schreiber, M.D., M.P.H.

As you sit on hold after calling your doctor's office to make an appointment, you wonder what other business model is this archaic? During a thirty-mile drive through a snow storm for a fifteen-minute follow-up with your dermatologist to look at a piece of your skin he treated last week, you wonder, is there a better way? When have to explain to your primary care doctor about a previous week's visit to a specialist -- the two don't share records -- you shake your head and wonder, is there a better way?



The short answer to that question is a resounding “yes!” Major shifts coming to medical care will harness the potential of broadband and the internet, fundamentally changing and improving the way we access our health care provider. There are powerful forces driving these changes. Two of the largest: a shortage of physicians and the excessive cost of medical care in the United States compared to other western countries. New federal rules that require physicians and hospitals to have electronic medical records for all their patients -- and call for the reimbursement to health care providers for telemedicine visits -- are paving the way for rapid change in medical care.

How will broadband touch your medical care? In every way!

First, all your medical records, lab reports, and X-rays, whether from a physician or a hospital, will be electronic and shared among providers and other hospitals as needed. When you move, your medical records will be downloaded to your computer or to the computer of your new doctor. Big packages of paper medical records and X-ray film will soon be completely gone.

Second, community hospitals will communicate more and more with specialized, tertiary care hospitals by telemedicine. For example, let's say you are suspected of having a stroke. Your community hospital will have an electronic link to a stroke neurologist miles away, who will examine you and ask you questions by a telemedicine video link. If a stroke is indeed diagnosed, you will be transported by ambulance to the nearest stroke center where sophisticated interventions can be launched. If the tele-exam is normal, you may stay overnight in your local hospital for observation or be sent home. These links will enhance the ability of our community hospitals to provide better care locally.

Third, telemedicine will close the communication gap between you and your primary care doctor. "Patient portals" will allow you to access your physician's practice, download your lab results, ask questions, pay bills, and make appointments, all from your home computer. Already, there are apps for smart phones that automatically notify you if a cancellation has occurred in your doctor's office and an earlier appointment is available. It is likely that the receptionist whose only job is to answer phone calls from patients wishing to make appointments will soon be a thing of the past.

Finally, Televisits, in which patients "see" their doctors from the comfort of their homes via video link, are already taking place in many parts of the country. And they will dramatically increase, since Medicare will pay the provider for this virtual doctor's office visit. Home visits by nurses and other health care professionals will also be internet linked. A visiting nurse can use his or her smart phone to transmit exam results and photographs of you in real time to your physician without you ever leaving the home.

More importantly, after you are discharged from the hospital or are recovering from an illness, home monitors that measure your heart rate, blood sugar or blood pressure, for example, will communicate by Bluetooth to your smart phone, which then transmits the information to your doctor's office via the internet. Not only will the tele-monitoring of vital signs reduce the number of physical visits to an office, but it will

also provide an early warning of approaching medical problems. For a growing population of seniors, telemedicine greatly improves our ability to age in place in our own homes.

Broadband is coming to American medical care, and very soon. The use of broadband will improve access to medical care, our ability to move our medical records from place to place, communication among health care providers, and our ability to be cared for in our own homes.

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