



FCC Broadband Workshop on Healthcare

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Overview

On September 15, 2009, the Federal Communications Commission (FCC) held a [three-hour workshop](#) to discuss the future of broadband usage in healthcare with a specific focus on telehealth services. The FCC sponsored the workshop to receive testimony from representatives across the healthcare community on successes and lessons learned on broadband usage and telehealth, which will impact the development of the National Broadband Plan. Development of the plan was launched in April of this year and a finalized plan must be delivered to Congress by February 17, 2010.

Major themes included Broadband Bandwidth Requirements and Innovations in Telemedicine where accented with examples of healthcare facilities already utilizing broadband services, as well as those facilities where resources were lacking. In addition, barriers the health community faces in accessing broadband telehealth connectivity were outlined.

Bandwidth

New technology developments such as the picture archiving and communication system, electronic health records, remote diagnostic testing, telemedicine and other health information technology (IT) initiatives are driving up bandwidth requirements in health care. By creating multi-purpose networks, broadband capabilities can be brought to areas where none exist today. To sustain the continued expansion of health IT broadband is essential and is essential anywhere a person has healthcare needs. High bandwidth is crucial in supporting the ever-expanding technical infrastructures prevalent throughout many of the nation's hospitals, clinics and doctors offices. For example, a T1 internet connection could take up to an hour to move an image study on the network and today providers like Internet2 can move these same data sets in a few seconds. This time for broadband is critical, especially in emergency medicine. Other factors contributing to increased bandwidth usage are activities in medical education (5-10MB for each participant) and patient evaluation in remote clinics. It is important to recognize the cost saving potential of remote clinics and benefits to the patient such as eliminating transportation costs and increasing access to care.

There are a number of broadband pilot programs underway throughout the United States. Two mentioned at the event were in Iowa and Nebraska, both using a fiber optic network to connect hospitals, clinics and physicians. A third, the [Rural Health Care Pilot Program](#), was established by the FCC in November 2007, and has a goal to create a nationwide broadband network dedicated to health care. The FCC has requested an extension to the program and the approval of an advisory board. The presenters advised the FCC to remember that cost avoidance and quality of life improvements should be taken into account when executing the National Broadband Plan. The presenters also provided recommendations to improve the administrative burden on the community, including:

- Eliminate progress reports until implementation and remove the requirement for a sustainability plan
- Change the cost match requirement
- Aggregate services and align FCC programs with other federal programs in the healthcare delivery system
- Build broadband capabilities that anticipate and meet current and future demands
- Investigate the possibility of developing different tiers of broadband requirements based on the needs of providers and consumers
- Establish a commission to monitor these requirements after the National Broadband Plan has been submitted to Congress

Telemedicine

The development of telemedicine over the last ten years has not only been in the area of phone consultations and chronic care, but has expanded into every area inside a hospital. To allow for effective telemedicine technologies, the presence of a stable high band network is essential. With telemedicine, there is greater access to care, especially in rural areas, round the clock coverage and expert coverage is available. Patients benefit in timely access to services that may not be available locally, there is also better quality of care, as well as improved triage when a patient transfer is required. In addition, there are cost savings by eliminating unnecessary travel. There are also benefits to professionals such as access to consultative services, educational resources and continued medical education. Statistics have shown that telemedicine services reduce re-hospitalization, reduce admission to nursing homes and overall lower the cost of health care. In rural areas telemedicine has allowed 85% of patients to remain in their local community and has led to improved outcomes. In Arkansas it has even reduced infant mortality rates by providing early access to prenatal care.

Healthcare providers around the nation use a variety of telehealth applications including, but not limited to:

- Video conferencing
- Telepharmacy
- Home health remote monitoring
- Health information exchange
- Distance learning

- Store and forward applications
- Emergency preparedness
- Disease surveillance

In central Wisconsin, telemedicine services include telehealth exam rooms, clinic exam technologies, telepharmacy, Head Start programs and teledentistry. Approximately 45 clinical services are offered to approximately 4,000 patients a year. Ideally, creating telehealth partnerships with entities including hospitals, the Department of Defense and Veterans Administration, rural and free clinics, the Health Department, schools, nursing homes, work places and retail clinics can improve healthcare. In fact, telehealth in the work place has proven to reduce lost days of work by 65%. Today, telemedicine has the greatest probable impact in preventative and wellness care.

Despite the benefits of telemedicine, there are still a number of barriers to overcome, many of these include:

- Financial constraints
 - Cost to purchase broadband
 - Labor cost at both the host and remote facility
- Legal issues
 - Patient privacy
 - Physician licensing
 - Malpractice
- Reimbursement
 - Private insurers reimburse around 57% of some telemedicine services
 - 27 States reimburse for Medicaid
 - Medicare reimbursement is limited to certain areas
- Cultural
 - Disruption to work flow
 - Discomfort with the use of technology

To solve the issues healthcare providers face today, presenters have made the following recommendations:

- Hospitals receive more upfront investment funding
- Reimbursement should be expanded for telemedicine services
- Outcome based incentives should be established to compensate hospitals for lost revenue
- Standards should be established
- Federal policies and definitions need to be aligned