ACLP
ADVANCED COMMUNICATIONS LAW & POLICY INSTITUTE
at New York Law School

NEW YORK LAW SCHOOL

BROADBAND, TELEMEDICINE & HEALTHCARE[1]

With healthcare costs soaring,[2] policymakers are looking for ways to streamline the administration and costs of healthcare services. A key platform for achieving this objective is broadband. Indeed, broadband is driving innovation and spurring cost-savings in the healthcare sector by providing a robust, interactive medium that enables a variety of telemedicine tools and services. The impacts of these tools and services are multiple and include:

- Enabling the use of efficient health information technologies (HIT). Broadband enables the widespread use of electronic health records, which could streamline the administration of healthcare and could lead to annual cost-savings of approximately $80 billion.[3]
- Enhancing the quality of care.[4] The use of broadband-enabled telemedicine and HIT tools can reduce costly medical errors via the implementation of solutions like e-prescribing, which can enhance physician accuracy.[5]
- Extending the geographic reach of healthcare to rural areas. The difference in the quality of healthcare available in rural and urban areas is significant. However, broadband is being used to enable teleconsultations, teleradiology, and remote monitoring, all of which help to make up for a dearth of physicians who practice in rural areas.
- Facilitating in-home care. Broadband-enabled in-home monitoring systems are increasingly popular among seniors, people with disabilities, and others. These types of services could enable enormous cost-savings. According to one study, "a full embrace of remote monitoring alone could reduce healthcare expenditures by a net of $197 billion (in constant 2008 dollars) over the next 25 years with the adoption of policies that reduce barriers and accelerate the use of remote monitoring technologies."[6]
- Reducing unnecessary treatments and costly patient transfers. A pilot initiative sponsored by the U.S. Veterans Association found that in-home chronic disease management tools (e.g., teleconsultations, remote diabetes monitoring) resulted in 40 percent fewer emergency room visits and a 63 percent reduction in hospital admissions.[7]
- More cost-effective healthcare for seniors and people with disabilities. According to one estimate, broadband-enabled health and medical services can save some $927 billion in healthcare costs for seniors and people with disabilities.[8]
- The early detection of chronic diseases. A number of broadband-enabled in-home monitoring systems are being tested to detect the early onset of cognitive diseases like Alzheimer's. Treating these types of diseases "costs the United States more than $148 billion annually in Medicaid and Medicare services and in indirect costs to businesses that employ [Alzheimer's] and dementia caregivers."[9] Yet it is estimated that the early "interventions that could delay the onset of Alzheimer's disease by as little as one year would reduce prevalence of the disease by 12 million fewer cases in 2050," which could lead to dramatic cost savings for this disease alone.[10]

*****Additional Resources are Available on the ACLP Website*****
www.nyls.edu/centers/projects/advanced_communications_law_and_policy_institute

NOTES

[1] These observations are drawn from a recent publication by the ACLP. *See* Charles M. Davidson & Michael J. Santorelli, *The Impact of Broadband on Telemedicine* (April 2009), *available at* http://www.nyls.edu/user_files/1/3/4/30/83/BroadbandandTelemedicine.pdf.

[2] In 2007, healthcare costs represented 16 percent of U.S. GDP, or approximately $2.1 trillion, and are expected to rise to nearly 20 percent of GDP by 2017. *See* Dept. of Health & Human Services, Centers for Medicare & Medicaid Services, National Health Expenditure Fact Sheet, http://tiny.cc/OZJt6.

[3] Richard Hillestad et al., *Can Electronic Medical Record Systems Transform Healthcare? Potential Health Benefits, Savings, and Costs*, at p. 1103, HEALTH AFFAIRS, Vol. 24, No. 5 (2005).

[4] According to the Agency for Healthcare Research and Quality's 2007 *National Healthcare Quality Report*: "The average annual rate of improvement reported across the core measures included in this year's fifth annual NHQR is 2.3%, based on data spanning 1994 to 2005. An analysis of selected core measures, which cover data from 2000 to 2005, shows that quality has slowed to an annual rate of 1.5%," at p. iv. This report, released in February 2008, is *available at* http://www.ahrq.gov/qual/nhqr07/nhqr07.pdf.

[5] For example, it has been argued that the adoption of Computerized Physician Order Entry systems, which allow doctors to prescribe medicine electronically, can "substantially decrease the overuse, under use, and misuse of healthcare services." *See* Gilad J. Kuperman & Richard F. Gibson, *Computer Physician Order Entry: Benefits, Costs, and Issues*, at p. 31, ANNALS OF INTERNAL MEDICINE, Vol. 139, No.1 (2003), *available at* http://www.annals.org/cgi/reprint/139/1/31.pdf. Studies have also found that this type of technology enables cost-savings for patients by "allowing doctors to check, with a patient's consent, the relative cost of co-payments for generic, formulary, and non-formulary drugs in a patient's health plan." *See* Laura Landro, *Incentives to Push More Doctors to e-Prescribe*, Jan. 21, 2009, WALL ST. J.

[6] Robert Litan, *Vital Signs via Broadband: Remote Health Monitoring Transmit Savings, Enhances Lives*, at p. 2, White Paper of Better Healthcare Together (Oct. 2008), *available at* http://tiny.cc/dfOnA.

[7] Marlis Meyer, Rita Kobb & Patricia Ryan, *Virtually Healthy: Chronic Disease Management in the Home*, at p. 1, *Disease Management* Vol. 5, No. 2 (June 2002), *available at* www1.va.gov/visn8/v8/clinical/cccs/articles/virtually.doc.

[8] Robert E. Litan, *Great Expectations: Potential Economic Benefits to the Nation From Accelerated Broadband Deployment to Older Americans and Americans with Disabilities*, New Millennium Research Council (Dec. 2005), available at http://www.newmillenniumresearch.org/archive/Litan_FINAL_120805.pdf

[9] *Highlights of Research Findings*, at p. 1, International Conference on Alzheimer's Disease, Alzheimer's Association, *available at* http://www.alz.org/icad/downloads/2008_ICADhighlights.pdf.

[10] Press Release, *Alzheimer's disease to Quadruple Worldwide by 2050*, June 10, 2007, Johns Hopkins University Bloomberg School of Public Health, *available at* http://tiny.cc/okrpL.

About the ACLP at New York Law School

The ACLP is an interdisciplinary public policy program that identifies and analyzes key legal and regulatory issues in the advanced communications sector. The ACLP promotes solution-focused dialogues among state and federal policy makers, industry, academe, consumers, and the financial community regarding changes to the state and federal regulatory regimes governing the advanced communications sector. For more information, please contact:

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