

Deborah Brodsky, db2938

Policy Memo: Promoting the Use of Telemedicine in Rural Counties

Executive Summary

The field of telemedicine is growing rapidly in the United States as well as abroad, and it is imperative for the Federal Trade Commission (FTC) to understand the benefits and drawbacks of this advance in medicinal care. Telemedicine refers to the delivery of remote clinical services using technology, like computers, television, and even telephones.¹ The inclusion of telemedicine in a hospital or a medical practice is often lauded, because it improves access to care for patients in remote settings, and is cost effective.² For example, studies show that the use of telemedicine in hospitals would help avoid 850,000 transports between emergency rooms each year, with cost savings of 537 million dollars per year.³ Although the use of telemedicine is a growing trend, several justifiable concerns remain about implementing it so widely. As a result, there are three options to consider when pursuing the implementation of telemedicine. The first option is to use existing state population categorizations to determine which counties are rural, and require all rural medical providers to offer care via telemedicine. The second option is to require all medical providers across the nation to offer some form of telemedicine. And the third option is to provide incentives to all medical providers in the United States to offer telemedicine domestically and internationally, to form larger patient databases and increase domestic profit.

¹ *American Telemedicine Association*. N.p., n.d. Web. 17 Apr. 2014. <http://www.americantelemed.org/about-telemedicine/what-is-telemedicine#.U0_-buZdWUR>.

² *American Telemedicine Association*. N.p., n.d. Web. 17 Apr. 2014. <<http://www.americantelemed.org/about-telemedicine/what-is-telemedicine#.U0IQp61dWUQ>>.

³ *American Telemedicine Association: Examples of Research Outcomes*. N.p., n.d. Web. 17 Apr. 2014. <<http://www.americantelemed.org/docs/default-source/policy/examples-of-research-outcomes---telemedicine's-impact-on-healthcare-cost-and-quality.pdf>>.

Upon consideration of these options, it is advisable for the FTC to pursue option one, as it is most budget conscious, incremental, and will improve access to medical services for the largest number of patients in rural settings.

Background

Telemedicine is a popular topic across the globe, because it integrates 21st century technology with the delivery of medicine, and allows for efficiency of care, increased patient satisfaction, and significantly decreased costs for providers and states alike. Not only is telemedicine beneficial to patients who can remain in their homes while consulting a doctor, telemedicine is also beneficial to providers, because expanding remote care increases a provider's patient base. In addition, no separate coding is required for the billing of remote services, thus providers do not need to train office staff to code a different form of care.⁴ There are four primary services telemedicine delivers, including primary care and specialist referral services, remote patient monitoring, consumer medical and health information, and medical education. While telemedicine is best known for primary care and remote patient monitoring, it also helps patients obtain specialized health information from online discussion groups, and offers opportunities for medical professionals in remote locations to continue their education by obtaining class credits from medical education seminars.⁵

Despite the advances telemedicine presents, it also presents three problems. First, using new technology presents hurdles for some providers and patients who are resistant to change from traditional care. Second, telemedicine will benefit some settings over others. For instance, telemedicine in nursing facilities provides care to patients during off hours, and prevents many

⁴ *What Is Telemedicine?* N.p., n.d. Web. 17 Apr. 2014. <<http://www.americantelemed.org/about-telemedicine/what-is-telemedicine#.U1ANU-ZdWUQ>>.

⁵ *What Is Telemedicine?* N.p., n.d. Web. 17 Apr. 2014. <<http://www.americantelemed.org/about-telemedicine/what-is-telemedicine#.U1ANU-ZdWUQ>>.

emergency department visits each year. However, savings from telemedicine in nursing facilities often benefit Medicare, and do not introduce a benefit for the nursing facility. A third problem is that telemedicine poses competition from international providers who offer remote care to Americans for a low price. One must consider these problems when expanding telemedicine, because any medical care delivery system must be regulated to insure the highest quality delivery possible. To date, 21 states offer private insurance coverage of telemedicine services,⁶ and 45 Medicaid plans offer some telemedicine coverage.⁷ Were the FTC to encourage implementation of telemedicine, improving cost-effective patient care and promoting competition in the medical industry would be primary goals.

Evidence

According to the American Telemedicine Association and *Health Affairs*, there are 200 existing telemedicine networks in the United States that connect with more than three thousand locations.⁸ Within those locations, patients and providers are saving significant quantities of money, as the average cost of equipping 100 intensive care unit (ICU) beds in hospitals is between three and five million dollars. Conversely, the cost of operating 100 electronic ICU beds, (consulting with 100 patients remotely), is roughly 300 thousand dollars. When patients remain at home and consult doctors through telemedicine software, discounts range from 30 to 50 thousand dollars per ICU bed.⁹

⁶ *American Telemedicine Association: Public Policy*. N.p., n.d. Web. 17 Apr. 2014.

<<http://www.americantelemed.org/policy/overview-news/page/2/#.U1AYKOZdWUQ>>.

⁷ *2014 Telemedicine Policy Priorities*. N.p., n.d. Web. 17 Apr. 2014.

<<http://www.americantelemed.org/docs/default-source/policy/ata-federal-policy-priorities.pdf?sfvrsn=36>>.

⁸ *American Telemedicine Association: What is Telemedicine?* N.p., n.d. Web. 18 Apr. 2014.

<<http://www.americantelemed.org/about-telemedicine/what-is-telemedicine#.U0lQp61dWUQ>>.

⁹ *Health Affairs: Does Telemonitoring Of Patients—The eICU—Improve Intensive Care?* N.p., n.d. Web. 18 Apr. 2014. <<http://content.healthaffairs.org/content/28/5/w937.full>>.

In addition to being cost-effective, telemedicine also results in high quality of care. According to an American Telemedicine Association about the impact of telemedicine on quality of care, there is no difference in a provider's ability to make an accurate diagnosis, develop a treatment plan, and produce desired clinical outcomes using telemedicine in comparison to traditional care.¹⁰

Finally, there is strong evidence supporting the need to expand telemedicine to keep up with America's growing and aging population. The Centers for Medicare and Medicaid Services (CMS) predicts a 40 percent increase in heart disease and a 50 percent increase in cancers and diabetes by 2023. CMS also predicts that health care costs will grow to almost 20 percent of gross domestic product by 2022.¹¹ Expanding telemedicine is therefore a compelling, and cost-effective way of providing quality treatment to a growing number of patients.

Problem

As mentioned, the cost of consulting with 100 patients remotely is about 300 thousand dollars. While this cost is paltry compared to the cost of treating a patient in person, there will still be tangible costs if further implementation of telemedicine is pursued. In addition, a steep learning curve accompanies the application of any new technology for providers and patients alike. Not only will providers have to work with slow internet connections and faulty equipment while delivering care, patients will also have to use home equipment properly, in order to guarantee efficient care.

¹⁰ *American Telemedicine Association: Telemedicine and Quality of Care*. N.p., n.d. Web. 18 Apr. 2014. <<http://www.americantelemed.org/docs/default-source/policy/examples-of-research-outcomes---telemedicine's-impact-on-healthcare-cost-and-quality.pdf>>.

¹¹ *Health Affairs: Connected Health: A Review Of Technologies And Strategies To Improve Patient Care With Telemedicine And Telehealth*. N.p., n.d. Web. 18 Apr. 2014. <<http://content.healthaffairs.org/content/33/2/194.full.pdf+html>>.

Another problem with telemedicine is that by nature it benefits some providers over others. For instance, a dermatologist must only look at a picture in order to provide diagnoses, while a cardiologist needs a home aid and equipment at the patient's home in order to provide care.¹² Finally, the largest problem with telemedicine is growth. Ironically, expansion of telemedicine creates a serious threat to the American medical community, by introducing international competition. Telemedicine presents a significant opportunity for medical providers abroad to seek business from American patients. These international providers are primarily based in India, and are called "Nighthawk" providers.¹³ Nighthawk providers offer deep price discounts on services, and can often avoid medical malpractice liabilities because they are outside of American jurisdiction. As is evident, policy options to expand telemedicine must be winnowed down to one solution, and must be technically feasible in order for the FTC and the policy community to agree on one method of application.

Policy Options

1. **Require that states establish telemedicine in all rural medical settings.** With the aid of census data, the Federal government categorizes states by county according to their rural or urban designation.¹⁴ It is advisable to utilize this county-level categorization to require telemedicine in all medical settings in rural counties. Individual states would be responsible for implementing this change, and the FTC is advised to support this expansion within the medical industry.

¹²*Health Affairs: Connected Health: A Review Of Technologies And Strategies To Improve Patient Care With Telemedicine And Telehealth.* N.p., n.d. Web. 18 Apr. 2014. <<http://content.healthaffairs.org/content/33/2/194.full.pdf+html>>.

¹³*Health Affairs: Teleradiology: A Case Study Of The Economic And Legal Considerations In International Trade In Telemedicine.* N.p., n.d. Web. 18 Apr. 2014. <<http://content.healthaffairs.org/content/25/5/1378.full>>.

¹⁴*State Profiles of Medicaid and SCHIP in Rural and Urban Areas.* N.p., n.d. Web. 18 Apr. 2014. <<http://www.shepscenter.unc.edu/rural/pubs/report/FR91.pdf>>.

2. **Require that telemedicine be available in all healthcare settings.** Telemedicine services should be mandatory in all healthcare settings, to benefit homebound or highly contagious patients in both rural and urban settings. Telemedicine services are highly cost-effective, and thus should not be limited to rural settings. This would also be implemented on a state-by-state basis, and the FTC is advised to support this change. While cost-effective in the long term, the initial implementation of telemedicine will be expensive. This sudden expansion may be too broad and hasty of an approach because all providers do not benefit from telemedicine equally.
3. **Promote American telemedicine abroad.** In order to combat the unregulated and growing Nighthawk problem of international providers treating American patients, state governments and the FTC should encourage all domestic medical providers to care for a domestic and international audiences, essentially reversing the Nighthawk problem by promoting American business abroad. While consulting with American doctors is costlier than consulting with doctors abroad, the lure of American expertise for foreign patients is likely to increase American medical profits, while encouraging the use of telemedicine among American providers. To avoid violating American medical license regulations, the Federal government must permit American telemedicine use abroad. Public support from individual states, the FTC, and national media outlets is recommended. Although this option promotes business competition, some countries might interpret this business move as aggressive, and even inappropriate.

Recommendation

Option one, which requires states to establish telemedicine in all rural medical settings, is the policy option that is most likely to succeed at this early stage of development. This option

addresses concerns regarding the cost of widespread implementation by limiting the expansion of telemedicine to rural counties with patients who have the greatest need for improved access to care. This option also utilizes existing state categorizations by county, and will not require additional research. Finally, this option expands upon the most basic goal of telemedicine, which is to assist patients who have poor access to care due to extreme distance between the patient and the nearest provider. This option also presents an incremental solution, which would allow policymakers time to study benefits of telemedicine for the sake of further expanding its reach. First steps in implementing this option would require communication by individual state governments to medical providers, to notify providers of this mandatory change and offer technical assistance for making the transition to offering telemedicine smooth. The FTC is advised to act as an industry supervisor to rural providers. Promotion of this option will emphasize the FTC's mission of protecting (rural) consumer rights. While this option is a sound starting point and is least costly to implement of the three options, this would still be a vast transition for the medical community due to the costs of acquiring telemedicine technologies, and training staff. This option, if a success, will then open up telemedicine to broader horizons after it has proven itself at the local level.