Broadband and Telemedicine

Executive Summary

Telemedicine is any kind of electronic exchange of medical information, including patient portals to access health records, phone and video visits, or remote monitoring of patients. Telemedicine is effective for many types of care and can improve access and convenience of care for patients. However, many patients that could benefit the most from telehealth (including rural residents, elderly, underinsured, and minorities) often have limited broadband access.

Highlights

- Telemedicine can help **reduce barriers** (distance, transportation costs) to seeking care.
- Lack of broadband access limits telehealth opportunities. **Those lacking broadband access (elderly, underinsured, racial minorities, and rural residents) often stand to benefit the most from telemedicine.**
- Numerous studies have found telemedicine as effective as in-person options.

Limitations

- Telemedicine quality of care varies depending on physician training and the network of telehealth providers available.

Patient Travel and Cost Savings

Telemedicine visits, compared to in-person visits, can reduce barriers to getting health care. One study indicates that even with an option of free care, people were only willing to travel on average 20 miles for preventative care.[1] A study from University of California Davis Health System estimated that their telehealth system, focused on rural, underserved populations, saved patients 139 miles of travel, 123 minutes of travels and $78 in travel costs on average per consultation.[2] Patients may also save on the cost of care itself, particularly when expensive alternatives can be avoided (such as visiting an emergency room when seeking medical advice).[3,4]

Accessibility of Broadband for Telemedicine

Telemedicine technology often requires broadband internet access. Patients lacking access to broadband often stand to benefit the most from telemedicine. For example, 33% of Missourians live in rural areas, where access to both physicians and broadband are more limited than in urban areas.[5] Across the U.S., rural counties with low broadband access had 34% fewer telemedicine visits than those with high broadband access.[6] Even in urban areas, the elderly, underinsured, and minoritized patients are often less likely to live in areas with high internet connectivity.[7] One study found that people living in neighborhoods with broadband access were more likely to use a patient portal, allowing them to view test results, seek medical advice, and read messages from the healthcare providers.[7] A study conducted during the COVID-19 pandemic suggests that disparities exists in patients completing telehealth appointments and in ability to use video or phone only.[8]

Quality of Care

Telemedicine can be an effective option for many types of care, depending on the physician and access to a network of other telehealth providers. Studies comparing telehealth to in-person consultations indicate that telehealth options can be as effective as in-person options for asthma, chronic heart failure, and opioid use disorder.[9-13] Telemedicine technologies can also connect providers to other providers. For instance, the Show-Me ECHO (Extension for Community Healthcare Outcomes) Project, led by the Missouri Telehealth Network, helps to connect isolated primary care providers to share evidence-based practices to improve patient outcomes.[14] Telemedicine can also come with risks for lower quality care. In particular, direct-to-consumer telemedicine (on-demand health-care that can sometimes be with a physician that the patient had no previous relationship with) is sometimes associated with lower quality care, with less guideline concordant treatments including overprescription of antibiotics. This may be drive in part by patient ratings for doctors on these services.[15-18]

Telemedicine in Missouri

Telehealth technology has been used in Missouri for 25 years, with dramatic increases in recent years. Some form of telehealth is available through almost all Missouri's major health systems.[19] Missouri Statute 208.670 requires telehealth providers to ensure the same standard of care as what patients would receive in person. Due to the COVID-19 pandemic, the Centers for Medicare and Medicaid Services and Office of Civil Rights relaxed restrictions to allow reimbursement for more telehealth services, out-of-state physicians to offer telehealth services, and waived potential patient privacy protection penalties for providers using telehealth to communicate with patients, which has expanded telehealth options.[19]

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