Telehealth and Telemedicine in Missouri

by Mirna Becevic, PhD, Lincoln R. Sheets, MD, Emmanuelle Wallach, MA, Anne McEowen, MS, Angie Bass, MHA, E. Rachel Mutrux, BA & Karen E. Edison, MD

Missouri Telehealth Network
University of Missouri

With increased use comes the need to design telehealth policies and procedures that ensure high quality of care and patient safety.

Mirna Becevic, PhD, (above), is Assistant Professor, Department of Dermatology, Lead Evaluator; Lincoln R. Sheets, MD, PhD, is Assistant Research Professor, Department of Health Management and Informatics, Associate Director of Data and Evaluation; Emmanuelle Wallach, MA, is Evaluation Coordinator; E. Rachel Mutrux, BA, is Senior Program Director and Director; Karen E. Edison, MD, FAAD, MSMA member since 1991, is Professor Emerita of Dermatology, Senior Medical Director; all are at the Show-Me ECHO/Missouri Telehealth Network, University of Missouri-Columbia School of Medicine, Columbia, Missouri. Anne McEowen, MS, is at Center for Health Policy, University of Missouri-Columbia, Columbia, Missouri. Angie Bass, MHA, is Chief Executive Officer, Missouri Health Connection, Columbia, Missouri.
Contact: becevicm@health.missouri.edu

Abstract

Missouri is a national leader in telemedicine, and the Missouri Telehealth Network has led operational, legal and regulatory, and research and evaluation efforts since 1994. Telehealth and telemedicine have the potential to increase access to and efficiency of healthcare delivery, improve quality, and improve patient outcomes. Coverage and reimbursement rules vary by regulator, and Missouri enjoys a broad statutory definition of telehealth coverage and reimbursement parity (no distinction between in-person and telehealth services).

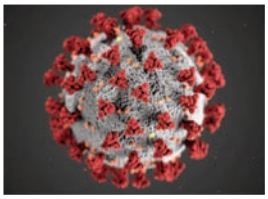
Introduction

Missourians face a growing demand for specialized health care and multiple impediments in accessing the health care they need. The state's elderly population is projected to increase to 1.2 million or 19.1 percent of the state's total by 2025. [1] More than 30 percent of Missouri's residents live in rural areas, which cover 97 percent of the state.[2] Rural Missouri has fewer physicians than in 2011, and rural Missouri physicians are two years closer to retirement on average than their urban Missouri counterparts.[3] With limited or no access to timely and quality care, rural Missourians are overall less healthy than their urban counterparts, with significantly higher death rates (867 per 100,000 rural Missourians versus 799 per 100,000 urban Missourians). [4]

Telemedicine and telehealth are readily available tools in the state's arsenal for overcoming obstacles to accessing health care. Their use can improve patient outcomes, primarily by reducing the transportation time and costs and increasing the access to physicians. This is especially true for rural patients needing access to specialized physicians. Physician efficiency may also be improved resulting in overall reduction in health care costs.[5] Early adopters in nearly all clinical specialties have had good results from telemedicine and telehealth, but many barriers to adoption remain. [6]

Telemedicine and Telehealth

Telemedicine and telehealth are often used interchangeably. Missouri law defines both as "the delivery of health care services by means of information and communication technologies which facilitate the assessment, diagnosis, consultation, treatment, education, care management, and self-management of a patient's health care while such patient is at the originating site and the health care provider is at the distant site." [7] It is also useful to consider telemedicine strictly as the delivery of clinical care at a distance,[8] and use telehealth as an umbrella term that includes telemedicine but also includes education and training. "Telehealth



How COVID-19 Changed the Telehealth and Telemedicine Landscape

Due to an ongoing COVID-19 pandemic, the CMS has issued a number of new rules and waivers of federal requirements in order to expand the use of telehealth services.[1]

More than 80 additional telehealth services, including direct-to-consumer, emergency department, nursing facility visits, are now reimbursable. These policy changes allow patients to receive necessary care without putting self or others at risk.[1]

Some of the important changes include allowing out of state clinicians to provide services via telehealth as well as billing for non-enrolled providers.[2]

The Office of Civil Rights also announced that, due to the nationwide public health emergency, potential HIPAA penalties will be waived for providers using telehealth technologies to communicate with patients.[3]

This enforcement discretion also supports the use of commonly used communication applications, such as FaceTime and Skype, to be used for visits with patients for diagnostic and treatments purposes.[3]

These rules are expected to tighten as the pandemic wanes and physicians should move toward the use of secure platforms for telemedicine as soon as they can.

Table 1. CMS COVID-19 Telehealth Policy Update

- Phone and video visits allowed
- Out of state providers allowed
- Temporary billing for non-enrolled clinicians
- Rural requirement for Medicare reimbursement removed
- Expansion of hospice, nursing/assisted living facilities
- Tele-supervision of medical residents

The CMS recognizes the fluidity of the current healthcare crisis, and continues to update the reimbursement and billing policy to be implemented immediately across the country. Table 1 summarizes some of these policy updates as of April 24, 2020.

MO HealthNet now allows new patients to be seen via telelealth and waives patient co-pays during the pandemic.[4] It also allows providers who are quarantined or providing telehealth services from alternative hub locations to bill for those services.[4]

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technologies include video-conferencing, the Internet, asynchronous "store-and-forward" imaging, streaming media, and terrestrial and wireless communications."[9]

Missouri has been a leader in using telehealth to address the shortfall of physicians in rural areas. In early days, telehealth was primarily used to connect rural patients with specialty care. Today, the uses are myriad and include telehealth coverage of tele-ICU and emergency departments, telehealth into schools, hospital to hospital telehealth such as tele-stroke, remote monitoring of chronic diseases into the patient home for conditions such as congestive heart failure, and many more applications.

The Missouri Telehealth Network (MTN) was a pioneer in this field in the mid-1990s, receiving funding, through grants and contracts, from telecommunications companies early on, and then federal and state grants over the years. Since 1994,

MTN has served to provide specialty care services to rural and underserved Missourians in every corner of the state. Some of the most common specialties using telehealth have been psychiatry, dermatology, cardiology, neurology and subspecialty pediatrics. In 2013, over 40,000 patients received telehealth visits in Missouri,[10] and MTN increasingly provides specialty care through its robust "Show-Me ECHO" (Extension for Community Healthcare Outcomes) program.[11]

In the MO HealthNet program, the use of telehealth in Missouri doubled between 2012 and 2016.[10] Today, nearly every major health system in the state has adopted some form of telehealth. In addition, a recent MHA survey of rural hospitals indicated that more than half of participating hospitals use telehealth services, and over 80 percent of those retained patients within their communities because of the use telehealth.[10] Since 2001, MTN has been a telehealth resource center facilitating the adoption of telehealth throughout the state for both public and private partners. MTN, due to its experience is a trusted expert partner, with expertise in legal and regulatory telehealth, for state agencies designing telehealth policies and regulations. Missouri is now a state with few regulatory barriers to the adoption of telehealth. In 2018, Missouri House Bill Number 1617 was passed and signed into law, effectively allowing telehealth to be used for patients in most settings and by any licensed "health care provider," and stipulating only that the same standards of care apply as when that provider sees a patient in person. [12]

Telehealth Reimbursement

Medicare

Medicare reimbursement for telehealth services generally requires the use of live interactive video that "permits real-time communication" between the patient at an "originating" site and a physician at the "distant" site, except in Alaska and Hawaii where the use of asynchronous store-and-forward telehealth is also reimbursable.[13] Table 2 summarizes restrictions by payer in Missouri: Medicare has three new reimbursement codes for telehealth - technology-enabled virtual check-in, store-and-forward of pre-recorded information to determine whether a visit is needed, and inter-professional consultation over the Internet. In less than a year since these codes have been approved, low reimbursement rates have limited their adoption.

Table 2. Restrictions by Payer in Missouri for Telemedicine

Payer	Medicare	MO HealthNet (Missouri Medicaid)	Private Payer
Type of telehealth reimbursed	• Live-interactive • Technology-enabled virtual check-in • Store-and-forward to determine whether a visit is needed • Inter-professional consultation • Store-and-forward in AK & HI	• Live-interactive • Store-and-forward	Coverage and reimbursement parity: • Must allow tele-visits instead of in-person visits • Must pay similar amounts for in-person and tele-visits
Originating (patient) site	• Physician's offices • Hospitals and clinics	No restrictions	Varies by payer
Eligible practitioners	• Physicians • Nurse practitioners • Physician assistants • Certified registered nurse anesthetists • Clinical nurse specialists • Clinical social workers • Nurse midwifes • Psychologists • Registered dietitians or nutrition professionals	Any licensed physician or other health care practitioner registered with MO HealthNet	Varies by payer

Telehealth visits from these originating sites are reimbursable: physician's offices, rural health clinics, Critical Access Hospitals (CAH) and other hospitals, Federally Qualified Health Centers (FQHC), Skilled Nursing Facilities (SNF), Community Mental Health Centers (CMHC), mobile stroke units, renal dialysis facilities and hospital-based renal dialysis centers, and homes of beneficiaries with End-Stage Renal Disease (ESRD) who are getting home dialysis.[13] However, reimbursements are further limited to visits where the originating (patient) site is in a rural Health Professional Shortage Area (HPSA) in a rural census tract, or in a county outside a Metropolitan Statistical Area (MSA). This restriction leaves out many elderly patients from other areas, especially those in skilled nursing facilities, in-patient settings, or at home but unable to travel due to other barriers. Violating this rule is a common reason that telehealth services are found to be ineligible for Medicare reimbursement.[14]

Missouri Medicaid

In many ways, telehealth reimbursement from Missouri's Medicaid system (MO HealthNet) mirrors Medicare reimbursement policies. Telehealth care must follow the same licensure requirements and standards of care as in-person services, and can be reimbursed at the same rate. Prescriptions and other treatment can only be provided within a physician-patient relationship, which can be established via telehealth but must consist of an interview – an Internet or

telephone questionnaire is not enough. Parental authorization is also required for telehealth services to children.

MO HealthNet does have a few unique requirements for telehealth reimbursements. As for in-person visits, eligible physicians must reside in Missouri or one of the neighboring states in addition to being licensed to practice medicine in Missouri. Unlike Medicare, MO HealthNet eligible originating sites are not limited by geographic location and include both rural and metropolitan areas. Table 3 summarizes the relevant Missouri statutes as of 2019.

Table 3. Relevant Missouri Statutes for Telemedicine as of 2019

Senate Bill (SB)	Effective Year	Summary
SB716	2014	• Creates the Show-Me ECHO (Extension for Community Healthcare Outcomes) Program • Authorizes collaboration between Show-Me ECHO and the Missouri Department of Social Services
SB579	2016	• Physician-patient relationship required • Must consist of an interview – an Internet or telephone questionnaire is not enough • Must follow standards of care and evidence-based standards of practice • Prescriptions, controlled substance, and other treatment within the scope of practice based solely on a telephone evaluation ONLY IF a patient-physician relationship has previously been established
SB951	2018	• Services provided by licensed health care practitioners can also be provided via telehealth • **Licensure requirements and scope of practice are the same for telehealth vs. in-person** • Same reimbursement for telehealth as for in-person services • Same standard of care • May consider a fee for the originating site • No restriction on originating (patient) site • Subject to parental authorization, children may receive telehealth services in school
SB514	2019	• Improved Access to Treatment for Opioid Addictions Act (IOTOA) • Expands the ability of assistant physicians, physician assistants, and advanced practice registered nurses to help with opioid addiction treatment within the IOTOA program • In particular, a remote collaborating physician is still considered on-site (even though the collaboration is conducted via telecommunications)

Credentialing. Licensure and Liability

The originating site, which is the location of the patient, determines the jurisdiction of medical care and the state in which the physician must be licensed.[15.] States are responsible for regulating credentials and issuing licenses, and their rules vary considerably. [15] Since not all states have telehealth laws and regulations, if a complaint is received regarding a physician who is not licensed in the state where the patient is, then the regulatory board might impose "operating without a license" penalty provision.[15]

This is a potential barrier to expanding telehealth in Missouri. In theory, a Missouri patient could choose a telehealth physician from another state; but in practice, this is limited by the requirement for the physician to pay licensing fees and adhere to state-specific practice regulations in order to be licensed in Missouri. This may be discouraging to physicians[16] but helps to ensure accountability for high-quality care.

All this may become easier if Missouri joins the Interstate Medical Licensure Compact (IMLC), which offers an expedited pathway for licensure across state lines and currently includes 29 states, the District of Columbia, and the Territory of Guam.[17] It is not in effect in Missouri, but has been recommended by Missouri Governor Mike Parson and the Missouri Hospital Association.[18] One of the main advantages of the IMLC is its database of easy-to-share information between member states. However, in Missouri, data capture and implementation processes are not complete because the requirements for the state are complex and costly.[16]

Legal liability is a common concern for physicians starting telehealth, and it is likely that the number of malpractice suits will increase as telehealth becomes more widely used.[19] However, case law has been quite limited to date.[20] Physicians should consult with their malpractice insurers before starting a telehealth practice.

Restrictions

Telehealth has expanded from its original rural focus [21] to metropolitan areas, and has been shown to compare favorably to in-person consultations for a number of conditions including asthma,[22] chronic heart failure,[23] and opioid use disorder. [24, 25, 26] However, Medicare has not expanded its geographic restrictions, except for acute stroke, substance use disorders, and co-occurring mental health disorders. [27] Privacy concerns also lead many insurers, including Medicare, to limit the originating (patient) site to a health care location due to Health Information Portability and Accountability Act (HIPAA) restrictions.

The Ryan Haight Act [28] prohibits the prescription and dispensing of controlled substances via telecommunications nationwide, except in established and specifically defined physician-patient relationships. Missouri Senate Bill Number 579 specifies that telehealth prescriptions and treatment may only be delivered within an established patient-physician

relationship,[29] as regulated by the Missouri Board of Registration for the Healing Arts.[30]

Direct-To-Consumer Telemedicine

Direct-to-consumer (DTC) telemedicine refers to patient-initiated, on-demand health care with their own physician, another physician within the same practice, or, more commonly, a physician with whom the patient has no existing relationship. The latter is commonly offered by for-profit companies, with direct-pay options.[31] There are, however, issues with quality assurance, access to medical history, continuity of care, and follow-up care in the DTC model.

Studies have suggested that contrary to traditional telemedicine, where patients who connect with specialists under the guidance of their primary-care physician receive comparable care to what they would have experienced in-person, direct-to-consumer models suffer from a lack of quality care.[32, 33] For example, studies have shown that DTC telemedicine physicians are more likely than in-person physicians to prescribe antibiotics, less likely to order diagnostic testing, and that the proposed treatment is less likely to be guideline-concordant.[32, 34] This may be related to the fact that the success of DTC telemedicine is primarily dependent on 'user' ratings, and antibiotics-prescribing physicians were found to be more likely to receive a five-star rating from a parent when they prescribed antibiotics for their child's respiratory tract infection.[35]

Misuse and Abuse of Telehealth

As with any new technology, telehealth has the potential to be misused. Even with the best of intentions, prescribers may be more likely to over-treat minor complaints during telehealth visits than during in-person visits[36] and poor-quality telehealth care may put patients at risk.[33] Legitimate telehealth services also create new potential for erroneous reimbursement claims, many of which may result from unfamiliarity with reimbursement rules. In a 2018 audit of telehealth claims by the Deputy Inspector General of the Centers for Medicare and Medicaid Services (CMS), 31% of sampled claims were for services received at non-rural originating sites or were otherwise unallowable.[14]

Of course, the potential for erroneous or fraudulent telehealth is not limited to physicians; for example, thousands of online pharmacies illegally sell prescription medications, including controlled substances, without a prescription and often at exorbitant prices.[37] Telehealth technology is well suited to the delivery of some evidence-based complementary and alternative therapies such as yoga[38, 39] and mindfulness.[40] However, there is some evidence that it is also being used for alternative medical practices with less scientific support, such as homeopathy,[41, 42] and Scientology.[43] Arizona, one of a few U.S. states that allow licensed naturopathic doctors (ND) to write prescriptions, has permitted NDs to examine patients and prescribe medications by telehealth since 2014.[44] Using telehealth to expand the delivery of complementary and alternative medicine, like using it to increase access to standard evidence-based medical care, will have the unintended consequence of also increasing opportunities for misuse and fraud.

Rural Access and Connected Health

One of the key evidence-based strategies for addressing these challenges is the adoption of connected health systems, which have the potential to increase access to care, improve capacity of physicians to treat patients in rural and isolated areas, and support the needs of patients and their caregivers in their own communities.[45] "Connected health" is a conceptual model of care that encompasses wireless, digital, electronic, mobile, and telehealth technologies designed to enable proactive and efficient health care services.[45] The rapid increase in, and the upward trend of personal use of technological devices and mobile applications, are a driving force behind the connected health growth. The availability and convenience of mobile and connected health technologies are radically transforming and improving care delivery, not only by optimizing services through the use of disruptive innovation applications, but also by empowering patients to take a more active role in their health care.[46]

A leading example of connected health in Missouri, as described on https://missourihealthconnection.org website, is "the Missouri Health Connection (MHC), one of the largest health information exchanges (HIE) in the United States and the only secure, statewide,

private, non-profit HIE in Missouri."[47] MHC supports its participating health care stakeholders by providing an up-to-date, comprehensive, longitudinal health record including clinical and claims data.[47] MHC is a trusted "vendor agnostic" system that connects hundreds of disparate data sources including health care providers, regional, state and national HIEs, health plans, and accountable care organizations (ACO).[47] MHC makes comprehensive health records for more than 22+ million patients available to over 7,000 providers, hundreds of clinics, 14 of 28 community health centers in Missouri, more than 75 hospitals (including Missouri's four largest health systems), three payers, two ACOs, numerous long term care facilities, the Veterans Administration, and the Department of Defense.[47] MHC is the nationally identified Midwest HIE gateway in the CMS supported Patient Centered Data Home initiative, facilitating the exchange of clinical information across the country by connecting to more than 40 other HIEs and covering 92% of the United States population.[47]

In order for connected health to fill some of the gaps left by disappearing rural hospitals and retiring rural physicians, Missouri's 101 rural counties[48] will need the reliable broadband and cellular access already available in its 14 urban counties. Missouri has one of the lowest rates of broadband access in the United States,[49] but Missouri Governor Mike Parson and the Missouri Hospital Association have emphasized the importance of improving rural access to broadband internet in Missouri for improved health care, education, and agriculture.[50]

Conclusions

Missouri has used telehealth technologies for the past 25 years, but has seen a dramatic uptick in use for the past five to ten years. While live interactive health services, such as telepsychiatry and teleICU care, still make up the bulk of the telehealth activity, store-and-forward telehealth services, such as teledermatology, are growing, especially through the network of Veterans Health Affairs hospitals and community-based clinics in the state. And, as payment schema shift toward value-based payment, monitoring of chronic diseases are also increasingly common. [51] With increased use comes the need to design telehealth policies and procedures that ensure high quality of care and patient safety. Health care delivery is increasingly team-based, coordinated care where there is ample communication between the consultant and the primary care team. DTC telemedicine when the teleconsultant has no or limited access to the patient's allergies, medication list, or problem list, may present unique challenges to high quality care, especially for patients with multiple chronic diseases on multiple medications.

Health care is best when it can be delivered regionally, or even better, locally, and where the teleconsultant has a working knowledge of the culture, health resources, and infrastructure that surround the patient where they live. Telehealth policy is being supported and influenced by physicians and their professional organizations locally[18] and nationally. [52 53] Missouri has always moved forward, carefully but steadily, in embracing telehealth technology and should continue to put the patient in the center when designing policy around telehealth.

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Disclosure

None reported. **MM**