

Telemedicine in a primary care clinic in Fairbanks, Alaska: Not a magic bullet for providing treatment during COVID-19

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Abstract

Stay-at-home orders due to the COVID-19 pandemic have increased patients' reliance on virtual physician visits, via telemedicine. Telemedicine has benefits of use during the pandemic and has benefits outside of the pandemic. It is underutilized in certain types of medical organizations, providers, and among specific populations in the United States. It is important to understand the barriers to incorporating telemedicine effectively in the areas that it is underutilized, especially in rural locations. The researcher discussed the telemedicine expansion for two family practice doctors in Fairbanks, Alaska (AK). The family practice doctors experienced barriers that partially echo what has been stated in research. Research suggests that changes to Medicare and Medicaid telemedicine policies may not be enough to address these barriers. Other supports to expand telemedicine where it is needed includes providing more incentives to providers, waivers from insurance companies for patients to purchase equipment, and more education to patients about when, how, and where to receive telemedicine. More supports need to be provided to those underserved by telemedicine, especially for clients who are on Medicaid, living in low-income areas, and/or living in rural locations.

Keywords

COVID-19, telemedicine, barriers, technology, rural

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Introduction

The World Health Organization (WHO) announced COVID-19 officially became a pandemic on March 11, 2020.¹ COVID-19 is a community spread disease and people who are asymptomatic may not be aware they have the virus.² This led to stay-at-home orders and instructions for people to follow social distancing guidelines in the United States. Stay-at-home orders due to COVID-19 have increased patients' reliance on virtual physician visits, via telemedicine. The pandemic has led to accelerated access to telemedicine that may linger after the pandemic subsides. This short communication examines barriers two family practice doctors in Fairbanks, Alaska (AK), have faced implementing telemedicine. Despite an increase in patient reliance on telemedicine, this has not necessarily been accompanied by an increase in the ease of access, especially for clients who are on Medicaid, living in low-income areas, and/or living in rural locations.³

Literature on telemedicine

In the context of a contagious viral pandemic, the benefits to using telemedicine to limit exposure for both patient and provider are clear; however, benefits extending beyond this context are equally important. Telemedicine increases patients' access to specialty doctors.³ When deployed in rural locations, it is associated with positive healthcare experiences and improved perceptions of patients' local health care options.⁴ Furthermore, emerging evidence from telepsychiatry suggests these benefits do not come at the cost of inferior quality of care compared to face-to-face interactions.^{5,6}

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Telemedicine is underutilized in certain types of medical organizations (i.e. private and smaller clinics) and types of medical providers (i.e. primary care providers),⁷ and among specific U.S. populations (i.e. Medicaid, low-income, and rural populations).³ Pre-pandemic, 42% of hospitals in the United States had used telemedicine in some capacity as of 2012, with higher use among teaching hospitals, hospitals with other use of advanced medical technology, hospitals that were part of a larger system, and nonprofit hospitals.⁸ A 2014 survey found only 15% of family practice doctors self-reported using telemedicine.⁹ Other research found the doctors most likely to provide telemedicine were radiologists (39.5%), psychiatrists (27.8%), and cardiologists (24.1%).¹⁰ When examining April 2019 to April 2020, the entire United States had a significant increase in telemedicine use.¹¹ The Northeastern United States had the greatest use of telemedicine which may be due to the larger populations and the Southwest United States had the least (Northeastern United States: 52,811% increase compared to Southwest United States: 2,215% increase).¹¹ Since April 2021, 84% of providers were offering telemedicine services. This varies by specialty, with psychiatrists and substance-use providers submitting more outpatient and office claims compared to other specialties (50% of claims for psychiatry were telemedicine and 30% of claims for substance-use treatment were telemedicine).¹² Prior to the COVID-19 pandemic, and increasingly, during it, efforts have been made to encourage use of telemedicine through opportunities for reimbursement and reducing restrictive regulation. To ensure this increase of telemedicine persists after the pandemic, we need to address potential implementation barriers.³

A case in Fairbanks, AK

Alaska is unique because it is the largest state in the United States with the territory of 656,425 square miles, but has a small population of only 731,545 people.¹³ The space between towns is great (i.e. traveling from Fairbanks to Anchorage is 357 miles) and some towns and villages can only be accessed by boat or bush plane (such as Juneau). There are very remote areas in Alaska where access to technology and the Internet is either limited or nonexistent. There are 229 federally recognized Alaskan native villages and 20% of the population is made up of Alaskan natives.¹⁴ In remote areas in Alaska, especially where some native villages are, the access of care can be very limited. There are many patients who have to travel great distances to see a provider to receive care. It is important to treat this case as unique because not only is it rural but it contains a population that has disparity in access and quality of healthcare.¹⁵

Owing to these reasons, Alaska has a long history of successfully using telemedicine especially in these remote, rural locations. For example, the Alaska Federal Health Care Access Network (AFHCAN) is a Alaska Native

Tribal Health Consortium program that was created to bring telemedicine to the rural areas of Alaska.¹⁶ In addition, there is the Alaska Federal Health Care Partnership (AFHCP) that was first formed in 1995.¹⁷ AFHCP was comprised of federally funded healthcare agencies in Alaska that strived to find ways to use technology to improve access to care and health outcomes—which included using telemedicine.¹⁷ But not all places in Alaska have fully incorporated telemedicine. For areas in Alaska that are not considered to be remote, these areas have clinics and hospitals that had not embraced telemedicine due to not needing it until the pandemic.

My parents provide primary care in a private family practice clinic in Fairbanks and had incorporated telemedicine at the start of the pandemic. Fairbanks is a city located in the interior of Alaska with a population size of 30,917 people and a territory of 995 square miles.¹³ When examining the geography of Alaska, Fairbanks is considered one of two metropolitan statistical areas in Alaska making this area distinct from rural areas.¹⁸ There are currently six clinics in Fairbanks that have at most two family practice providers, with the majority of the clinics having one available. My parents' clinic saw a dramatic decrease in patient foot traffic when the pandemic began. For them, offering telemedicine was not just a way to expand access to care without risk of COVID-19 contagion, but a financial imperative to staying open. As a Public Health PhD student, I had the aim to take this case and describe the experience to what other underserved locations may be experiencing.

The cost to bringing telemedicine into their practice was initially prohibitive. Start-up costs for a secure, HIPAA compliant system that integrated with their electronic medical record system were quoted at \$25,000, which was not financially feasible. The providers were uncertain about their patients' reception of telemedicine after COVID-19, so this did not seem like a sound financial move. Existing federal grants subsidizing equipment for providers to implement telemedicine programs into their practice might help clinics adopt more purpose-built technology into their practice, but providers may be unaware of this funding or be overwhelmed by the grant application process.⁷ It was not clear whether the integrated solution described above was sufficiently better than cheaper alternatives to justify the higher price tag. Ultimately, the clinic decided to use Zoom, which met Alaska's requirements for Medicaid reimbursement and was significantly cheaper than implementing a more purpose-built telemedicine system.

Helping patients adjust to using Zoom video technology added additional complications. When patients were unable to figure out how to use Zoom, multiple attempts were made to have a successful Zoom video call and documented for insurance purposes. One alternative to this would be if the provider used FaceTime through their personal iPhone instead. But the apparent issue would be the patient would

now have access to the provider's personal phone number. Instead, the provider would call the patient through their landline for their "visit" (reimbursed by Medicaid at \$15 per call for a telephonic visit). In some cases, the provider and nurse spent more time trying to get Zoom to work than they would have spent in an office visit. In most cases, difficulties stemmed from patients' lack of ease with the Zoom application. Other complications included: patients being unaware that they must be in a private location for their telemedicine visit, patients trying to have their visit while driving, and patients trying to have their visit at work, all resulting in rescheduled calls. Even though patients were informed of the requirements to participate in a telemedicine visit, these directions were not followed. A solution to reduce this barrier is to provide additional education to patients on when, how, and where to receive telemedicine.³ Work has been done on the barrier as the US Health Resources & Services Administration has developed a telemedicine website to provide resources and tips for patients and providers.¹⁹ To ensure this information is well-known to patients and providers, there should be more advertisement that it exists. In addition, the barrier could be reduced by conducting more research on how to make effective educational information on using telemedicine.

Lack of access to adequate Internet connectivity impedes widespread telemedicine use. Fairbanks is considered a rural location with gaps in Internet services, and the clinic has patients without access to electronic devices capable of utilizing telemedicine services. These issues have been noted in other research as well.^{20,21} This is especially problematic when those who may benefit most from telemedicine (those in rural locations) have the least capacity to do so. A possible solution is for insurance companies to offer waivers for patients to purchase the equipment they need to use telemedicine.³ Another possible solution is for states to expand public Internet access to those living in rural locations.

After a couple of months into the pandemic, as patients and providers adjusted with using telemedicine, ease of use increased. When insurance came back with rejected claims, this allowed a learning opportunity to the providers on how to change the way they held telemedicine visits to get reimbursed; it was a trial-and-error process. In addition, insurance companies began providing increased documentation on the requirements of reimbursement which aided in increased understanding of how to have a reimbursed telemedicine visit.

There were benefits the providers noted about changing to telemedicine. One benefit was it was better than not providing any care to patients. The providers were able to assess patients to determine if they needed critical care instead of staying home, especially during the pandemic. In addition, there were some patients who informed the providers that they preferred the telemedicine experience due to not having to leave their home. Ultimately, the providers felt for family practice medicine, telemedicine is

difficult to replace an in-person visit. For obvious reasons, it is challenging to examine someone who is not present (i.e. patient coming in complaining of abdominal pain).

Federal government and state policies

The difficulties experienced by this clinic partially echo well-documented historical barriers to greater use of telemedicine, which include: appropriate reimbursement, required state contracts authorizing providers to utilize telemedicine, training providers to provide a high standard of care remotely, provider access to remote infrastructure, and patient ability to conduct remote care sessions.³ On March 13, 2020, the federal government partially addressed one of these barriers with a retroactive rule (applied starting March 6) that for the duration of COVID-19, Medicare will reimburse telemedicine visits at parity with in-person visits. While this change has helped to improve reimbursement incentives to provide telemedicine to Medicare patients, it does not apply to telemedicine visits for patients with other forms of insurance.

During times of disaster or emergency, states can make changes to Medicaid through section 1135 waivers through the U.S. Secretary of Health and Human Services. The 1135 waiver changes will expire once the pandemic is over. As of November 30, 2021, there have been 28 states that have ended their waivers and 22 states still have their waivers in place.²² Of those 22 states, 19 still have the licensure flexibilities in place.²² An example of a request to increase in flexibility is in South Dakota. The state requested if a Medicaid patient did not have a device with video capabilities, they could use a telephone and the provider would be reimbursed at telemedicine rates.²² The waivers extend to reimbursement parity and state authorization. In many cases, Medicaid telemedicine reimbursement is tied to the requirement particular video systems are used. While providers can often access these systems, it may be harder for patients to do so. There are reasonable rationales for requiring telemedicine to be conducted via video rather than by telephone (seeing patients may lead to better care). Conversely, there are likely cases where provision of care via telephone is interchangeable with in-person visits (i.e. remote areas with little to no Internet connection to ensure care is being provided).

Conclusion

This clinic's experience incorporating telemedicine into their practice, likely reflective of other rural primary care providers, suggests that changes to Medicare and Medicaid telemedicine policies may not be enough to expand telemedicine to underserved populations. Additional support is needed to expand telemedicine to where it is needed most. Some ideas discussed included offering more incentives to providers who use telemedicine, waivers from insurance companies for patients to purchase equipment,

and greater education for patients about using telemedicine. These initiatives would lead to an increase in equity of medical care in the United States.

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Sarah Y T Hartzell: Conceptualization; Investigation; Resources; Writing—original draft; Writing—review & editing.

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