


## COMMENTARY

## Telemedicine Services During COVID-19: Considerations for Medically Underserved Populations

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The recent outbreak of the novel Coronavirus (COVID-19) has swept across the United States and is present in every US state and every major metropolitan area. As national, state, and local governments have begun implementing policies aimed at preventing the transmission and spread of COVID-19, changes in health care delivery have inevitably emerged. During this extraordinary time, health care systems and providers are seeking alternative delivery methods to ensure their patients' needs are met. Among the many approaches to continue providing needed care in the wake of physical distancing, telemedicine, defined as the use of technology to deliver clinical care remotely, remains a promising yet underutilized method. The purpose of this commentary is to explore the use of telemedicine in reaching underserved patients.

### Telemedicine and Medically Underserved Populations

In response to COVID-19, Medicare and Medicaid programs have begun expanding coverage and reim-

bursement of telemedicine services to promote care of beneficiaries using a variety of virtual communication methods.<sup>1</sup> Many private payers have made similar provisions. While definitions of the various telemedicine modalities are lacking in consistency, generally telehealth is defined as use of real-time interactive audio and video in order to deliver care at a distance. Conversely, virtual visits are telephonic (audio only), and E-visits make use of written communication, typically via an online patient portal.

The basic technical requirements for telehealth are a broadband connection, an application for the video, technology support, and a device capable of handling the technology.<sup>2</sup> When functioning as designed, telemedicine offers a convenient and effective form of clinical care.<sup>3</sup> Unfortunately, if one or more of these components is missing, the entire system will not function and alternatives must be explored. In many cases, although health care organizations will pay the upfront costs for telehealth technology and make this available to their patients at no additional cost, a lack of broadband access for patients can effectively stymie full telehealth capabilities.<sup>4</sup>

According to the Federal Communications Commission (FCC), there are approximately 24 million Americans who lack access to broadband, defined as Internet connections supporting sufficient download (25 megabits per second) and upload (3 megabits per second) speeds.<sup>4</sup> Nearly one-third of Americans in rural areas lack broadband, and disparities are greater among people of lower socioeconomic status and people on tribal lands.<sup>4</sup> Older adults are also at a disadvantage: just 51% of Americans 65 and older have broadband at home, only 42% have a cellular phone, and even fewer have a “smart phone” capable of streaming video.<sup>5</sup>

The patient population we serve at our clinic represents a microcosm of clinical panels across the United States. We serve a mixed rural-suburban population, with a large concentration of patients who are older adults or have substance use disorder, low income, low levels of formal education, or who have some combination of all of these factors. The majority of patients we serve rely on insurance coverage through Medicare or Medicaid.

For many of our patients, full access to telemedicine, particularly the video capabilities required of telehealth, is not feasible. A substantial proportion rely on landline telephone service, use prepaid cellular phones with limited data plans, use mobile carriers with narrow data coverage, or have limited broadband access, a problem exacerbated by high Internet usage due to, for instance, virtual schooling requirements for their children. We have encountered these challenges frequently when we contact our patients whose visits have been converted from in-person to telemedicine, but then cannot launch the video for a telehealth platform or cannot take a phone call because they lack cellular reception during the time slotted for the visit. Our experience has been that even well-resourced patients often run into issues with wireless coverage, making video connection a persistent challenge under seemingly ideal circumstances.

Additional barriers unrelated to technological compatibility exist as well. For example, older patients are often less familiar and therefore less comfortable with video-based technology. Cognitive and sensory impairments are also prevalent, and these barriers frustrate our ability to provide seamless care via video visit.<sup>6,7</sup> We find that many of these patients opt for a phone call or a home visit over pursuing telehealth when scheduling their appointments. Furthermore, our ability to perform remote monitoring which may otherwise guide clinical decision-making for Medicare patients is limited. For example, Part B coverage of blood pressure monitoring devices remains confined to a limited subset of the population. Finally, some patients of any age group may experience a significant amount of stress at the prospect of a telehealth visit: one patient shared that she had spent all night cleaning

her house before our care team could see into her private home.

Given these challenges, and despite our best efforts, many of our remote visits, including those which are originally scheduled as video-enabled telehealth visits, end up as audio-only virtual visits. Until very recently, the clinical revenue generated by these audio-only encounters was significantly less than would likely be required to maintain clinic solvency. Preliminary data from our practice suggest that reimbursement rates for telehealth mirror those of regular in-office clinic visits, whereas telephone and patient-initiated, asynchronous communications through an online portal known as E-visits tend to reimburse at much lower rates, typically less than half that of full reimbursement. Nationally, Medicare reimbursement for telemedicine visits varies considerably (see Table 1). For telehealth visits, reimbursement rates from Centers for Medicare & Medicaid Services (CMS) range from approximately \$46 for a 10-minute visit to approximately \$110 for a 25- to 30-minute visit.<sup>8</sup> In contrast, for virtual visits and E-visits, average rates have ranged from approximately \$15 for a 5- to 10-minute visit to approximately \$41 for a 21- to 30-minute visit.<sup>8</sup> Hence, telehealth visits yield more than twice the reimbursement for providers as compared to telephone calls or E-visits of comparable duration.

Thankfully, some payers have announced their intent to address this discrepancy by raising the reimbursement rate for virtual visits. NC Medicaid, for example, has recognized the challenges that vulnerable populations and their providers encounter and, consequently, has updated its fee schedule for audio-only encounters to allow enhanced reimbursement, albeit still lower than rates allowed for telehealth visits.<sup>9</sup> Unfortunately, certain types of encounters, such as Annual Wellness Visits for Medicare beneficiaries, are still required to be conducted via telehealth, eliminating our ability to continue providing these for many older adults.

## Discussion

COVID-19 is changing how we deliver health care. We are in an unprecedented time of intense learning and development. More medical practitioners than ever are providing care remotely, and similarly, more patients are seeking their care through remote methods. Although many patients will return to the clinic once the pandemic has subsided, it is likely that telemedicine will continue to play a prominent role, especially since: (1) telemedicine visits have frequently proven to be useful and convenient for patients and providers alike; (2) challenges related to the startup and sustainability of these services

**Table 1** Medicare Reimbursement for Telemedicine Visits Stratified by Encounter Type, April 2020

Description	HCPCS Code	Time	National Nonfacility Rate	NC Nonfacility Rate
TelePHONE encounters (audio only)				
Virtual check-in	G2012	5-10 min	\$14.80	
Telephone E/M (physicians)	99441	5-10 min	\$14.44	
	99442	11-20 min	\$28.15	
	99443	21-30 min	\$41.14	
Telephone (nonphysicians)	98966	5-10 min	\$14.44	
	98967	11-20 min	\$28.15	
	98968	21-30 min	\$41.14	
E-Visits (online using patient portal)				
Est Pt, online digital E/M (physicians)	99421	5-10 min	\$15.52	
	99422	11-20 min	\$31.04	
	99423	21-30 min	\$50.16	
Est Pt, online digital E/M (nonphysicians)	G2061	5-10 min	\$12.27	
	G2062	11-20 min	\$21.65	
	G2063	21-30 min	\$33.92	
TeleHEALTH encounters (includes video)				
New Pt, outpatient E/M, Level 1	99201	10 min	\$46.56	\$44.20
New Pt, outpatient E/M, Level 2	99202	20 min	\$77.23	\$73.61
New Pt, outpatient E/M, Level 3	99203	30 min	\$109.35	\$104.47
New Pt, outpatient E/M, Level 4	99204	45 min	\$167.09	\$160.16
New Pt, outpatient E/M, Level 5	99205	60 min	\$211.12	\$202.61
Est Pt, outpatient E/M, Level 2	99212	10 min	\$46.19	\$43.86
Est Pt, outpatient E/M, Level 3	99213	15 min	\$76.15	\$72.77
Est Pt, outpatient E/M, Level 4	99214	25 min	\$110.43	\$105.81
Est Pt, outpatient E/M, Level 5	99215	40 min	\$148.33	\$142.34
Initial annual wellness visit	G0438	n/a	\$172.87	\$166.10
Subsequent annual wellness visit	G0439	n/a	\$117.29	\$112.31

will have been overcome by many practices; and (3) we may see a resurgence of COVID-19 and need to enact distancing measures again in the future. Although reimbursement appears to be on its way to aligning with patient needs, access barriers remain. To improve access to telemedicine, state-level initiatives can aid with bridging gaps. Some states have made efforts to promote better access to broadband through a number of mechanisms, including direct funding through grant programs, income tax credits, and infrastructure coordination.<sup>4</sup> Unfortunately, not all states have these mechanisms in place and these efforts will not solve all telemedicine challenges—particularly for older patients who have cognitive or sensory impairments.

Providers will continue to meet their patients' needs to the best of their ability, during and after the pandemic. The use of telemedicine may be especially helpful in this endeavor for those who have transportation, distance, or mobility challenges. We have seen this for our rural patients who are enthusiastic about eliminating their considerable travel times and the costs associated with them.

In order to ensure its success, particularly for patients who stand to reap the greatest benefit and the providers who serve them, policymakers will need to be aware of the possible unintended consequences of certain rules for medically underserved populations, and ensure that financial incentives are aligned with care needs and adequate resources are available.

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