




Original Research

Qualitative interviews with physicians: Overcoming barriers to access to bring telehealth to older adults during COVID-19

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Abstract

Introduction

While the COVID-19 pandemic increased telehealth uptake, concerns surrounding access to telehealth visits emerged for older adults, especially those that are under-resourced, rural, and non-English speaking. We aimed to identify strategies employed by physicians to improve access to medical care via telehealth for older adults during the pandemic.

Methods

Using purposeful sampling, we recruited physicians for 30-minute semi-structured interviews. The interviews focused mainly on telehealth's usability for older patients, and specific strategies physicians employed to facilitate access to care for older adults with varied needs and skills. Interviews were coded using NVivo software and analyzed using framework matrix analysis.

Results

Of 48 physicians (geriatrician n = 18, primary care n=15, emergency n=15) interviewed, median age was 37 (interquartile range 34-45), and 27 (56%) were women. Our data suggests that older adults who were under-resourced, rural, or non-English speaking faced greater challenges in using telehealth. Physicians addressed these barriers with strategies tailored to individual patient needs and practice setting resources. Strategies included employing auditory augmentation and speech modifications to enhance understanding, using caregivers and home services to overcome inexperience with navigating technology, device distribution programs for those without equipment access, and real-time interpreter technologies. Physicians reported that telehealth was successful in reducing transportation barriers, whether due to distance or mobility impairments, especially among older adult populations and reducing "no-show" appointment rates.

Conclusions

Adoption of strategies to overcome technological and systemic barriers may improve equitable access to age-friendly telehealth for older adult patients. Physicians reported optimism that telehealth could be used to expand access to medical care for older adults with the right technological infrastructure, payment models, and support. Although challenges remain, they may be overcome with additional technical training for clinicians and patients, investment in telehealth infrastructure and broadband internet, and policy changes to promote telehealth access for this diverse patient population.

INTRODUCTION

As a result of social distancing and isolation measures during the early stages of the coronavirus disease 2019

(COVID-19) pandemic, the use of telehealth rapidly increased in the United States (US), accounting for 46.0% of clinical care during the first wave of the pandemic, compared to 3.7% previously.¹ Telehealth has the poten-

tial to address health disparities for patient populations with mobility impairments, as well as long commutes or transportation barriers.² However, without ensuring accessibility, these disparities could be exacerbated as technology use in healthcare grows. Older adults, ages 65 and up, face unique challenges using telehealth technology due to inexperience, lower self-efficacy, hesitancy to adopt digital devices, lack of digital access, and physical and cognitive disabilities.³⁻⁶ These barriers resulted in decreased healthcare utilization among older adults, racial/ethnic minorities, and Medicaid recipients during the first months of the pandemic with widespread telehealth adoption.⁷ Additionally, patients with limited English proficiency have lower rates of telehealth use compared to proficient English speakers (a 2015-2018 study of California patients found this to be 4.8 percent vs. 12.3 percent), and other under-resourced and rural populations also have decreased rates of telehealth use.^{8,9}

While these inequities have been well described, there is limited research highlighting solutions to barriers older adults face. Since the onset of the pandemic, various programs to address access gaps have been implemented; however, the scope of and evidence base for these remain limited. For example, programs supporting telehealth at community health centers, such as the Federal Communications Commission's COVID-19 Telehealth program could promote access to virtual services among non-English proficient patients but have not been broadly implemented. The federal Lifeline program subsidizes the cost of internet service and may reduce financial barriers to telehealth access, but outcomes have not been published.¹⁰ While these federal pilot programs represent a first step to identifying and addressing inequities, limited reporting exists on the lived experience of clinicians nationwide attempting to implement telehealth for older adults. Disseminating lessons learned in overcoming access barriers could help clinicians and policymakers make necessary changes.

In this qualitative study, we interviewed physicians practicing in all US regions, in rural/urban and academic/community practices during the COVID-19 pandemic. We explored the barriers in reaching older patient populations via telehealth and strategies employed to overcome access challenges. Understanding these strategies and existing limitations to access will inform future telehealth policies and promote equitable access to successful telehealth practices for all older adults.

METHODS

Summary

We conducted semi-structured interviews with geriatric, primary care, and emergency physicians practicing in the US to explore physician experiences with differential access to telehealth during COVID-19, with an emphasis

on older adults.^{11,12} Telehealth was defined broadly as remote communication with patients including via phone calls, video visits, home monitoring with wearables, app-based management, or web portals. We followed the Consolidated Criteria for Reporting Qualitative Research (COREQ) in drafting this manuscript and presenting study methods and results.¹³ The Rhode Island Hospital Institutional Review Board approved the study.

Conceptual Framework

This study was conceived as a result of a call for investigations related to COVID-19 and the use of telehealth to address the needs of older adults. Our work was motivated by a theoretical framework proposed by Douglas and colleagues, which illustrated the impact of COVID-19 on individuals' health.¹⁴ The framework contends that in-person care was displaced at the start of the pandemic due to fear and anxiety, home isolation, transport restrictions, and overwhelmed and/or sick healthcare workers and caregivers. We explored how physicians reacted to new restrictions and disincentives to in-person care via telehealth.

Population

Eligible physicians were licensed to practice in the US in geriatrics, primary care, or emergency medicine. We sought to understand physician experiences caring for geriatric patients. Recruited physicians must have provided medical care to patients 65 years and older (with or without COVID-19) in-person or via telehealth during the pandemic. Although patient and healthcare staff perspectives on telehealth are essential, physicians were chosen as participants because they are a less heterogeneous group regarding knowledge, training, and attitudes, and are leaders in care transformation as practice owners and hospital administrators.

PARTICIPANT RECRUITMENT

We solicited participants via social media platforms and specialty society electronic mailing lists. Specifically, we targeted Twitter, Facebook, and specialty social media groups (COVID-19 USA Physicians Facebook group with 150,500 members), as well as the Academy for Geriatric Emergency Medicine (158 members) and the American Geriatric Society Member Forum (7,600 members). Participants were offered \$50 gift card compensation for completing the interview. Because specialty, practice location, and type of practice (academic vs. community) may influence perspectives about telehealth, we aimed to recruit 12 to 18 physicians in each specialty (geriatrics, primary care, emergency medicine) stratified by location and practice type, or until thematic saturation was achieved. We used United States Department of Agriculture

(USDA) Rural-Urban Continuum Codes to group practice settings into urban, suburban, and rural categories.¹⁵

Participant Interviews

After obtaining verbal informed consent, we conducted 30-minute semi-structured interviews with physician participants via a virtual platform. There was no presence of non-participants. Participants answered questions about their demographics, years of experience, and practice setting (i.e. location, patient volume and demographics) prior to starting the interview. Because the principal investigator (PI) posted recruitment notices on social media, some physician interviewees were known to the PI. Interviewers stated their role in the study, title, and affiliation prior to initiating the interview.

Interview Content

The focus of the interviews varied according to specialty, practice setting, and type of practice. We asked semi-structured questions grounded in our conceptual framework in the following domains: general experiences with telehealth during COVID-19, practical considerations of initiating telehealth, barriers and facilitators of telemedicine, usability of telehealth, and adaptations employed to facilitate telehealth use with older adults. We developed an interview guide that contained these questions with follow-ups and probes to further explore participants' responses. The interview guide was pilot-tested within the research team, and is available as supplementary material accompanying the online article.

Interview Procedure

Participants were asked to consent to the voluntary interview and its audio-recording. Two female researchers facilitated the interviews: 1) the PI (EG) has graduate and postdoctoral training in qualitative methods, and 2) a trained research coordinator (FJ) with three years of work experience using qualitative methods. Interviews were audio-recorded, transcribed, and de-identified. No repeat interviews were necessary. Transcripts were corrected against the audio recordings for accuracy, and recordings were discarded after transcription for confidentiality. The interviewer completed a written debriefing after each interview to collect observations related to the tenor of the interview, strategies employed, and emerging themes.

Analysis

We used applied thematic analysis as a guide for our analysis of interview transcripts. Through iteratively reading the transcripts, we familiarized ourselves with the data and developed a set of codes based on our interview questions. Noteworthy themes and subthemes were coded independently by two members of the research

team and then later reconciled through team discussion between all eleven members. We identified common themes and subthemes across participants and interviews and reviewed them in relation to the entire dataset using NVivo 12.¹⁶ We recorded coding definitions, decisions, and emerging themes in an ongoing audit trail. To organize coded data, we performed framework analysis, a qualitative analysis technique in which investigators summarize content within categories into charts after transcription.^{17,18}

RESULTS

We recruited a total of 48 physicians (geriatrics (n=18), emergency medicine (n=15), and primary care (n=15)) (see [Table 1](#)) from September to November 2020. Physicians were evenly distributed between academic (n=24) and community (n=24) settings, and most physicians (58%) had previous experience using telehealth ([Table 1](#)).

Our data revealed that physicians perceived several barriers to equitable access of telehealth among older adults; however, age alone did not determine ease of telehealth use. Rather, other factors – including technology and internet access, rurality, and English fluency – influenced whether older adults could access telehealth successfully. Four major themes emerged related to patient access considerations ([Table 2](#)).

Theme 1: Physicians addressed sensory impairment and technology inexperience with a variety of strategies

Several physicians reported that exposure to technology, and not necessarily younger age, was found to be the key driving factor of ability to use telehealth among older patients. Older adults with little prior exposure struggled with telehealth technology, whereas others with sufficient technological literacy, whom some participants even described as “super tech-savvy,” had greater success navigating telehealth platforms. Others noted that, even among the unexposed, many patients were fast learners and that certain platforms (e.g. Zoom, FaceTime) were easier for older patients.

Because technology literacy was found to be unpredictable before the visit, physicians described solutions including calling ahead of appointments to complete a “dry run,” as well as setting up telehealth platforms and deploying staff or volunteers to patient homes. For older patients living in facilities, residential staff were asked to assist with the technology setup.

“So what we’ve done is most of the [older adult] visits now are done with either a visiting nurse or a med tech that’s in the home and assists patients for the visits.” (Interviewee B, Geriatrician, Metro)

Table 1. Characteristics and Telehealth Use for Total Sample and by Physician Specialty

	Total (N=48)	Geriatrics ^a (N=18)	Primary Care ^c (N=15)	Emergency Medicine ^b (N=15)
	No, (%) or Mean (SD)			
Age				
25-44	36 (75)	11 (61)	13 (87)	12 (80)
45-64	7 (15)	3 (17)	1 (7)	3 (20)
65 and over	5 (10)	4 (22)	1 (7)	0 (0)
Age, Median (IQR)	37.5 (34-44.5)	40 (35-63)	35 (34-43)	37 (34-43)
Sex				
Male	21 (44)	10 (56)	3 (20)	8 (53)
Female	27 (56)	8 (44)	12 (80)	7 (47)
Years in Practice				
0-10	33 (69)	10 (56)	11 (73)	11 (73)
11-21	9 (19)	2 (11)	3 (20)	4 (27)
22-32	2 (4)	2 (11)	1 (7)	0 (0)
33 years or more	4 (8)	4 (22)	0 (0)	0 (0)
Years in Practice, median (IQR)	7 (3.8-13)	9 (4-27)	6 (3.5-11)	7 (3-11)
Region				
Northeast	19 (40)	6 (33)	4 (27)	9 (60)
Midwest	10 (21)	3 (17)	3 (20)	4 (27)
South	9 (19)	5 (28)	3 (20)	1 (7)
West	10 (21)	4 (22)	5 (33)	1 (7)
Practice Setting				
Metro	26 (54)	12 (67)	7 (47)	7 (47)
Suburban	18 (38)	4 (22)	8 (53)	6 (40)
Rural	4 (8)	2 (11)	0 (0)	2 (13)
Practice Type				
Academic	24 (50)	9 (50)	5 (33)	10 (67)
Community	24 (50)	9 (50)	10 (67)	5 (33)
Prior Telehealth Use				
Video-visit only	8 (17)	2 (11)	3 (17)	3 (17)
Non-video visit only	14 (29)	5 (28)	6 (40)	3 (17)
Video and non-video visits	6 (13)	2 (11)	1 (7)	3 (17)
No telehealth	20 (42)	9 (50)	5 (33)	6 (40)
Telehealth Patients Seen*, median (IQR)	224 (64-640)	250 (64-640)	500 (200-960)	100 (35-400)

Note: Not all variable percentages add to 100% due to rounding. Missing data for number of telehealth patients seen existed in three geriatricians and two primary care physicians. Abbreviations: IQR, Interquartile range.

^a Some geriatricians reported a secondary specialty: Hospice and Palliative Medicine (n=1); Sleep Medicine (n=1). ^b Primary care physicians were boarded in Internal Medicine (n=12) or Family Medicine (n=3). ^c

Some primary care physicians reported a secondary specialty: Clinical Informatics (n=1); Geriatrics (n=2); Pediatrics (n=1); Sports Medicine (n=1). Some emergency medicine physicians reported a secondary specialty: Clinical Informatics (n=1); Internal Medicine (n=1). * Estimated pandemic period was 32 weeks between March 13 and October 16, 2020.

“We’re starting to reach out more to assisted living facilities where the patient would have a nurse or staff members that might be able to help them with the visit itself, set up the computer or something like that.” (Interviewee R, EM, Suburban)

Physicians shared that older patients with visual and auditory impairments had unique challenges using telehealth platforms. However, by incorporating headphones, Bluetooth hearing aids, caption phones, and signs into telehealth visits, physicians were able to facilitate visits for older patients with hearing difficulties. For visually impaired patients, many physicians found success in opting to conduct telephone visits instead of audiovisual ones.

“I made use of headphones more with folks that have significant hearing impairment. Myself speaking louder and enunciating more clearly over video. Same thing over the phone, enunciating, speaking loudly and clearly.” (Interviewee N, Geriatrician, Metro)

Finally, physicians shared that they asked caregivers for assistance with older adults.

“It really depends on the caregiver to help you. We’re relying a lot on caregivers, family members, paid caregivers, to help access these telemedicine visits for those who can’t do it themselves.” (Interviewee M, Geriatrician, metro)

Table 2. Themes of telehealth access challenges and solutions identified by physicians

Theme 1: Physicians addressed sensory impairment and technology inexperience with a variety of strategies	
1a. Prior exposure to technology and tech-savviness	<ul style="list-style-type: none"> “I guess one thing I would say is the older adults are like, I mean, there are parts of them that are going to get left behind, but a lot of them are super tech savvy. It's like you always have an iPad to chat with your grandkids. I think a lot of them have that. So the digital divide, it's far less age and far more technical literacy for one reason or another.” (Interviewee E, PCP, Metro)
1b. Facility and visiting staff to aid appointments	<ul style="list-style-type: none"> “If a student or one of our staff had really touched them and really spent a lot of time, it was pretty successful. It was almost all the time, unless technology failed. For those who didn't really spend too much time on [this], I think the failure rate was a little higher.” (Interviewee O, Geriatrician, Metro) “So what we've done is most of the [older adult] visits now are done with either a visiting nurse or a med tech that's in the home and assists patients for the visits.” (Interviewee B, Geriatrician, Metro) “We're starting to reach out more to assisted living facilities where the patient would have a nurse or staff members that might be able to help them with the visit itself, set up the computer or something like that.” (Interviewee R, EM, Suburban)
1c. Hearing and visual accommodations	<ul style="list-style-type: none"> “I made use of headphones more with folks that have significant hearing impairment. Myself speaking louder and enunciating more clearly over video. Same thing over the phone, enunciating, speaking loudly and clearly.” (Interviewee N, Geriatrician, Metro) “If we had headphones or something like that, that might improve the hearing impairment part. But it's still going to be hard, I think, to use these, even the phone or video, harder on video, iPad, for those with hearing impairments to use them.” (Participant P, EM, Metro) “My visually impaired patients, we've spoken by telephone and we've just gone, done away with the video visits.” (Participant I, PCP, Suburban)
Theme 2: Resource distribution helped bridge gaps in telehealth device access	
2a. Lack of access to devices or reliable internet	<ul style="list-style-type: none"> “[Patients who connect via telehealth] are actually a select group of people, because these are people that have good computer technology in their own homes. So there's a big population we're missing. They just don't have any way to interact with us this way.” (Participant H, PCP, Suburban) “It's a minority of people in this underserved, poor population that have smartphones and/or minutes to use smartphones for calls. That's been a big challenge.” (Participant G, Geriatrician, Metro) “Some of our neighborhoods, people don't have internet plans and they don't have great cell reception.” (Participant J, Geriatrician, Metro) “Our patients use a lot of burner cell phones. So, their phone numbers change. A lot of them are unstably housed, so they may be staying with one relative one week and another relative another week. I definitely end up talking to people's families.” (Participant L, PCP, Metro)
2b. Resource distribution strategies	<ul style="list-style-type: none"> “We've gotten that type of device for some of our patients who really don't have internet or device and very limited support, or can't get out of their own home very easily.... One of our doctors literally drove around town and delivered the GrandPad to his patients.” (Participant O, Geriatrician, Metro) “I'm lucky at the VA. We can actually send VA issued iPads to people who need them to start a mobile home visit.” (Participant A, Geriatrician, Metro)
2c. Better insurance coverage allowed for more comprehensive care	<ul style="list-style-type: none"> “The people for the most part who received telehealth pre- and during the pandemic through our group are ones with private insurance.” (Participant Q, EM, Metro) “But, when I was volunteering in the urgent care setting, it was mostly young affluent people who could figure out how to get themselves screened. ... A lot of our vulnerable patients were falling through cracks.” (Participant M, Geriatrician, Metro)
Theme 3: Telehealth reduced transportation barriers for rural populations despite infrastructure challenges	
3a. Lack of internet access and broadband	<ul style="list-style-type: none"> “[Rural] people don't have good internet and they can't necessarily get on the video.” (Interviewee F, EM, Rural) “We have the urban setting, but we draw from a large area. So a lot of people come from sort of more rural areas with poor internet access, or some people just don't have adequate internet access anyway.” (Interviewee D, PCP, Metro)
3b. Telehealth reduced transport times and enabled access to specialist for rural populations	<ul style="list-style-type: none"> “[For patients in a rural setting] ... I think it becomes very easy for them and very convenient for them, especially with older adults that have transportation issues.” (Interviewee K, EM, suburban) “So, so far I've had ...mostly positive experiences [in the] more rural community centers that we cover, it's an opportunity for them to have the voice of somebody else, like a second opinion right away, and you can see the patient. So, I feel for us, it's helped.” (Interviewee C, EM, rural)
Theme 4: More integration of interpreter services is needed for non-English populations	
4a. Lack of interpreter services	<ul style="list-style-type: none"> “Our population is also very predominantly English speaking. So we haven't really worked out a system to reach out and incorporate non-English speakers, which is predominantly Spanish in our area.” (Interviewee F, EM, Rural) “...it's super hard to get an interpreter on the phone, sometimes it takes 20 minutes and you're waiting for an interpreter and the visit is over.” (Interviewee O, Geriatrician, Metro)

4b. Strategies for non-English speaking patients

- “Sometimes I get the interpreter on speaker phone on one phone and ... it’s less than ideal, but with the Zoom, if we’re using that, then it works quite well.” (Interviewee D, PCP, Metro)

Abbreviation: PCP, primary care physician; EM, emergency medicine

Theme 2: Resource distribution helped bridge gaps in telehealth device access

Although many physicians cited the benefits of telehealth, about half noted concerns about patient access to devices (e.g. smartphones, laptops, or tablets) and stable internet connection. This resulted in many telehealth visits becoming phone calls, often as a last resort, which were deemed less suitable for conducting physical exams. Physicians reflected that the lack of technology disproportionately affected uninsured patients, those with public insurance, and individuals without adequate financial means. One physician reported that for patients who were experiencing homelessness, telehealth access was a practical concern—without a consistent phone number or environment to complete appointments, virtual visits were often delayed or canceled.

“It’s a minority of people in this underserved, poor population that have smartphones and/or minutes to use smartphones for calls. That’s been a big challenge.” (Interviewee G, Geriatrician, metro)

Several physicians suggested distributing devices, such as Wi-Fi-enabled tablets, to patients lacking access to telehealth technology. Two physicians reported adopting device distribution. One of these physicians (Interviewee O, Geriatrician, Metro) reported that their practice personally delivered GrandPads, tablets that are easy for older adults to use due to their one-click feature, to patients who had limited device access. In general, physicians caring for Medicare Advantage enrollees or patients receiving care at Veteran Affairs (VA) organizations had more experience with telehealth and were often better equipped to respond to access challenges in their patients. For example, one physician who worked at a VA organization reflected on their experience:

“I’m lucky at the VA. We can actually send VA issued iPads to people who need them to start a mobile home visit.” (Interviewee A, Geriatrician, Metro)

Theme 3: Telehealth reduced transportation barriers for rural populations despite infrastructure challenges

Many physicians caring for rural older adults noted that limited broadband infrastructure often prevented patients from being able to engage in video-based telehealth appointments. Although the lack of adequate broadband access presented challenges to telehealth participation for

rural patient, physicians also reflected that telehealth helped older patients by reducing the long commutes required for in-person care. Physicians noted that telehealth was successful in reducing transportation barriers, whether due to distance or mobility impairments, especially among older adult populations. Others observed that by removing transportation barriers, telehealth also decreased the number of “no-show” visits.

“... I think it becomes very easy for them and very convenient for them, especially with older adults that have transportation issues.” (Interviewee K, EM, suburban)

One academic emergency physician stated that their health system offered consultations to critical access hospitals that do not have board-certified emergency physicians on staff. Without telehealth, critically ill patients in these rural communities would not have access to critical care trained physicians.

“So, so far I’ve had ... mostly positive experiences [in the] more rural community centers that we cover, it’s an opportunity for them to have the voice of somebody else, like a second opinion right away, and you can see the patient. So, I feel for us, it’s helped.” (Interviewee C, EM, rural)

Theme 4: More integration of interpreter services is needed for non-English populations

Many physicians described challenges in integrating interpretation services in their telehealth platforms, which resulted in a requirement to have non-English speaking patients seen in person. Reasons for this were two-fold: (1) telehealth platforms lacked technology to easily connect to interpreters, and (2) there was a lack of initiatives to incorporate non-English telehealth services. Interpreter services, when available, worked better over video than audio. One physician discussed how most of their community is English-speaking, so there has been no drive to include other languages:

“Our population is also very predominantly English speaking. So we haven’t really worked out a system to reach out and incorporate non-English speakers, which is predominantly Spanish, in our area.” (Interviewee F, EM, rural)

Nonetheless, one physician indicated that they were able to include interpreters in telehealth visits using a “work around”:

"Sometimes I get the interpreter on speaker phone on one phone and .. it's less than ideal, but with the Zoom, if we're using that, then it works quite well." (Interviewee D, Primary care physician, Metro)

DISCUSSION

In this national qualitative study of frontline physicians, the experience and perceptions of our participants suggest that access to telehealth remains challenging for many important subpopulations of older adults – those not proficient in technology, the homeless and economically disadvantaged, rural, and low-English literacy populations. Physicians cited several strategies they employed to overcome these barriers. Physicians also reported unique challenges depending on their primary practice site (emergency department vs. outpatient), the patient population they serve (rural vs. urban, affluent vs. under-resourced), the insurance coverage of the patient, and available resources; thus solutions may differ based on these factors.¹¹ Nevertheless, most physicians were optimistic that telehealth could be used to ensure every individual needing medical care could access it with the right infrastructure, payment models, and support. By synthesizing the narratives of physicians on the frontline of the COVID pandemic, this research will help policymakers and other stakeholders develop strategies to expand telehealth access and address still existing inequities.

Although some physicians reported that their patients lacked digital literacy, they also reported that many older adults quickly became proficient in navigating telehealth platforms with instruction. Our study revealed that physicians found speech and technological adaptations facilitated successful virtual visits, including speech adaptations by physicians – decreasing the cadence and increasing the volume – and the involvement of devices such as microphones and hearing aids. To make telehealth access more equitable, accessibility features such as speech captioning and larger icon sizes, should be implemented for those who are sensory impaired in addition to clinician training on inclusive care. Accommodations for these impairments have been shown to prevent telehealth access gaps. For example, one retrospective analysis at a geriatric clinic found that impairments in hearing and vision did not result in fewer video or telephone appointments¹⁹; our study adds key perspectives on how physicians have instrumented these adaptations. Additionally, physicians reported that the involvement of caregivers or other in-person assistants (e.g. nurses, medical technicians) to assist patients was essential to ensure successful telehealth visits for patients with cognitive and sensory impairments. This is consistent with findings that show that the majority of homebound older adults require assistance from family members or other paid caregivers to complete virtual visits.²⁰ Telehealth access can be im-

proved by ensuring patients have adequate support through pre-visit check-ins to make sure that a caregiver will be present during the visit, sending in-person aides to patient homes, and expanding paid leave and payments to caregivers.

Poor access to Wi-Fi-enabled devices and broadband has limited the reach of telehealth. Our interviewees specified that this problem was especially prominent in low-income, underinsured, and rural older adult populations. A recent study of over 140,000 Americans also found that lower-income, older and minority groups were less likely to complete video visits.²¹ To mitigate some of these issues, device distribution programs improved access; in some cases, physicians personally delivered devices to patients. Other examples of device distribution programs exist—for example, the VA partnered with Apple to provide more than 50,000 Veterans with iPads to conduct telehealth visits.²² The establishment and support of more equity-centered programs like these will help bridge gaps in device access for future telehealth use. Access to Wi-Fi and reliable broadband represent key barriers for rural areas as these populations are much more likely to lack broadband access than those in urban areas.²³ Over 21 million people in the US lack broadband internet access²⁴ and internet use is positively associated with telehealth use.²⁵ Thus, ensuring more broadband access, is a necessary first step to reducing disparities in telehealth access. Even with these concerns, rates of telemedicine use for rural populations have drastically risen since the start of the COVID-19 pandemic.²⁶ Our study adds physician perspectives on the continued need for telehealth in remote locations, including providing crucial solutions for those with limited mobility and transportation barriers, while also reducing long commute times to distant appointments, which often leads to missed appointments and health inequities.²⁷

Physicians also noted challenges with integrating interpreter services for non-English speaking older patients into telehealth visits. For many, interpreter services were too logistically complex to navigate or were unavailable. Solutions included using a video format to best guide communication, as well as trying to coordinate three-way calls with the interpreter and the patient; however, it should be noted that physicians predominately emphasized that lacking interpreter services was a barrier and few found solutions, especially in areas serving mainly English speakers. Given the large and increasing population of patients with limited English literacy integrating appropriate interpreter services in telehealth platforms is vital to ensuring equitable access.²⁸ A 2020 study revealed that patients with non-English preferred languages were independently associated with decreased telehealth use.²¹ A potential strategy to overcome this barrier may include communication access real-time translation (CART), which would allow virtual visits to be captioned in real time.²⁹

Limitations

Through purposeful sampling, we recruited physicians from all regions of the country, and from multiple different specialties. While our representative sample included only four rural area-practicing physicians out of the 48 (8.3%) this mirrors the US physician population. Only 11% of US physicians practice in rural settings,³⁰ and several of our physicians have primary practice sites in non-rural settings but serve patients in surrounding rural areas. Our study only included physician perspectives and thus barriers cited may not accurately reflect actual patient experiences and there may be additional concerns by patients and other staff that were not reported to physicians. While representative of the study participants, emergent themes and findings may not be generalizable to all physicians' experiences, especially physicians of different specialties than those represented in our study. As recruitment occurred partially through social media, younger and, likely, more tech-savvy participants from the Northeast region of the US were overrepresented. Nevertheless, this hypothesis forming research reveals many strategic directions for policymakers, researchers, and other stakeholders to pursue to expand the reach of telehealth to all populations.

Conclusions

Although telehealth has proved to be a vital tool for healthcare delivery during the COVID-19 pandemic, interviews with frontline physicians revealed that accessibility issues remain for older patients who are under-sourced, rural, or have limited English literacy. Several

successful strategies including efforts to address sensory impairment, technology inexperience, language barriers, and access to telehealth capable devices have been employed by physicians to overcome these barriers, and if scaled, could bridge gaps in access among underserved populations. Our findings suggest that telehealth can become a viable care option for the diverse patient population of geriatric adults.

DISCLOSURES/CONFLICTS OF INTEREST

None declared

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