



Comparative Effectiveness Review Disposition of Comments Report

Research Review Title: *Use of Telehealth During the COVID-19 Era*

Draft report available for public comment from July 15, 2022, to August 12, 2022.

Citation: Hatef E, Wilson RF, Hannum SM, Zhang A, Kharrazi H, Weiner JP, Davis SA, Robinson KA. Use of Telehealth During the COVID-19 Era. Systematic Review. (Prepared by the Johns Hopkins University Evidence-based Practice Center under Contract No. 75Q80120D00003.) AHRQ Publication No. 23-EHC005. Rockville, MD: Agency for Healthcare Research and Quality; January 2023.
DOI: <https://doi.org/10.23970/AHRQEPSCRCOVIDTELEHEALTH>. [Posted final reports](#) are located on the Effective Health Care Program search page.

Comments to Draft Report

The Effective Health Care (EHC) Program encourages the public to participate in the development of its research projects. Each draft report is posted to the EHC Program website or AHRQ website for public comment for a 3- to 4-week period. Comments can be submitted via the website, mail, or email. At the conclusion of the public comment period, authors use the commentators' comments to revise the draft report.

Comments on draft reports and the authors' responses to the comments are posted for public viewing on the website approximately 3 months after the final report is published. Comments are not edited for spelling, grammar, or other content errors. Each comment is listed with the name and affiliation of the commentator if this information is provided. Commentators are not required to provide their names or affiliations in order to submit suggestions or comments.

This document includes the responses by the authors of the report to comments that were submitted for this draft report. The responses to comments in this disposition report are those of the authors, who are responsible for its contents, and do not necessarily represent the views of the Agency for Healthcare Research and Quality.

Summary of Peer Review Comments and Author Response

This research review underwent peer review before the draft report was posted for public comment on the EHC website.

- The most frequent general comment was about the need for additional detail and the need to clarify the message. The Evidence-based Practice Center added detail to the report and appendices where appropriate and possible based on available evidence.
- Reviewers expressed concerns about the complexity of the report and presentation of the results. These comments were primarily about Key Question 2. To address this concern, we added a section at the beginning of the Key Question 2 results to clarify how those results were organized. Additionally, we added numbered headings to the report to help deal with its complexity.

Public Comments and Author Response

Commentator & Affiliation	Section	Comment	Response
Public Commenter #1 (AGS)	General	<p>The American Geriatrics Society (AGS) appreciates the opportunity to review and comment on the Agency for Healthcare Research and Quality's (AHRQ's) systematic review on the Use of Telehealth During the COVID-19 Era. Founded in 1942, the AGS is a nationwide, not-for-profit society of geriatrics healthcare professionals dedicated to improving the health, independence, and quality of life of older people. Our nearly 6,000 members include geriatricians, geriatric nurses, social workers, family practitioners, physician assistants, pharmacists, and internists who are pioneers in advanced-illness care for older individuals, with a focus on championing interprofessional teams, eliciting personal care goals, and treating older people as whole persons. The AGS believes in a just society, one where we all are supported by and able to contribute to communities where ageism, ableism, classism, homophobia, racism, sexism, xenophobia, and other forms of bias and discrimination no longer impact healthcare access, quality, and outcomes for older adults and their caregivers. The AGS advocates for policies and programs that support the health, independence, and quality of life of all of us as we age.</p> <p>Considering that the population of people aged 65 and older is projected to increase dramatically in the coming years, the AGS believes that both the quality and efficiency of care delivered to older Americans with multiple chronic and complex conditions must be improved. Older people with chronic illnesses and complex conditions often do not receive optimal care which reduces overall well-being and contributes to disproportionately high healthcare costs for these individuals. We support resources and guidelines that support delivering high-quality, effective, efficient, and coordinated care for older adults and all Americans as we age.</p> <p>Our reviewers felt very called to this topic given their patient population face barriers of access and may lack general knowledge to easily accommodate for virtual visits. Like many healthcare professionals, geriatrics providers were left to immediately drop in-person visits in March of 2020 with no option to reopen for the foreseeable future—due to the COVID-19 public health emergency—leaving them to quickly adapt services so that care would be uninterrupted.</p>	Thank you for your comment

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Published Online: January 3, 2023



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Public Commenter #1 (AGS)	General	The AGS appreciates that the review covers age, race/ethnicity, multiple chronic conditions, rural vs. urban settings, and gender—especially in Key Questions 1a & c, 2b, and 3a—and is nicely summarized on pages 10-12. The authors directly address these issues of race/ethnicity, gender, age, and sociodemographic factors in their review, finding that patients making the most use of telehealth were young-to-middle-aged, female, white, of higher socioeconomic status, and in urban settings. While we agree that telehealth access correlates well—in many respects—with healthcare access more generally, it may not be serving to advance issues of equity yet.	Thank you for your comment
Public Commenter #1 (AGS)	General	We also appreciate that health literacy was factored in, namely that health literacy seems to be associated with one's willingness and ability to use telehealth modalities for healthcare.	Thank you for your comment
Public Commenter #1 (AGS)	General	The AGS notes that it is extremely difficult for sensory impaired and frail older adults, especially those with cognitive impairment, to participate in telehealth directly. Its efficacy is also harder to establish than with younger and/or otherwise unimpaired patients. As a result, many telehealth visits are with family members and/or caregivers rather than directly with the patients themselves.	Thank you for your comment
Public Commenter #1 (AGS)	General	Another concern is that if the patient has behavioral disturbances or is fully dependent for care, it can be difficult for family members/caregivers to participate in telehealth visits with and/or for the patient. We recognize that it is likely difficult for them to bring the patient to the clinic setting for appointments as well but is still relevant here.	Thank you for your comment
Public Commenter #1 (AGS)	General	There is likely a connection between vision impairment and difficulty with telehealth. This deserves study and given the high prevalence of vision loss in the older population, it is of particular interest.	Thank you for your comment
Public Commenter #1 (AGS)	General	The AGS recommends considering a future study that explores the present study questions in a population with dementia and forms of cognitive impairment in general and takes a closer look at the caregiver aspects necessary to overcome technology challenges in a highly specialized geriatric population with various cognitive and perhaps other sensory impairments (e.g., hearing, vision) that would otherwise preclude uptake of telehealth. The term "digital divide" has taken new meaning in the world since the COVID-19 PHE and some organizations even offer a "Digital Divide" consult to help link patients with resources. We recognize that all the technology in the world is not helpful unless there is someone who can knowingly operate it on the patient front and vice versa and having the best and most tech-savvy patient/caregiver cannot overcome a nonexistent internet. We encourage the exploration of this topic from the vantage point of the average older American.	Thank you for your comment You can submit suggestions for topics to AHRQ here: https://effectivehealthcare.ahrq.gov/get-involved/suggest-topic

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Public Commenter #2 (Cystic Fibrosis Foundation)	General	<p>Cystic fibrosis (CF) is a severe, progressive genetic disease that affects nearly 40,000 individuals in the United States. CF causes the body to produce thick mucus that clogs the lungs and other organ systems, which results in lung damage, life-threatening infections, and other complications. As a complex, multi-organ system condition, CF requires targeted, specialized treatment regimens. Despite significant advances in CF care, CF remains a life-shortening disease.</p> <p>As the world leader in the search for a cure for CF, the Cystic Fibrosis Foundation's mission is to give all people with CF the opportunity to lead long, fulfilling lives. We do so by funding research and drug development, advancing high-quality, specialized care, and partnering with the CF community to ensure that people with cystic fibrosis and their families have the tools, resources, and support they need to thrive. We are pleased to have the opportunity to review and share our thoughts on the publication "Use of Telehealth During the COVID-19 Era" and are encouraged to see that much of it aligns with the observations and data on telehealth use from the CF community throughout the pandemic. These include increased convenience and flexibility for many patients, less missed work and school, decreased travel expenses, potential improvements to health equity, technology and technical challenges for some, and financial concerns for providers. With that in mind, we would like to offer additional recommendations on areas of further research and considerations for those in the CF community.</p>	Thank you for your comment.
Public Commenter #2 (Cystic Fibrosis Foundation)	KQ3	<p>In this review, it is emphasized that telehealth may be an inadequate mode of care delivery for people requiring specialized care for complex conditions. While it may be true that telehealth alone is not advisable as an exclusive platform for healthcare delivery in complex conditions that require frequent testing and multimodal assessments, it has proven to be complimentary to traditional clinic-based care in cystic fibrosis. We recommend reevaluating and rephrasing the suggestion that telehealth may not be well suited for complex conditions as the reality is more nuanced than the draft implies.</p> <p>Telehealth is an important tool in the toolbox for CF care, when coupled with in person visits. Utilization of telehealth for CF care delivery peaked in April 2020 immediately after COVID-19 pandemic declaration and has fluctuated based on community COVID-19 transmission since then</p>	<p>Thank you for your comment. We don't agree that we inappropriately emphasized this point; we were describing the results from our quantitative (KQ2) and qualitative (KQ3) synthesis.</p> <p>With the new studies from the update, some of these findings have been revised.</p>

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Public Commenter #2 (Cystic Fibrosis Foundation)	KQ3	<p>The Experience of Care survey taken by people and their families after CF visits revealed that 25 percent of respondents had a fully remote or hybrid visit (with a virtual and in-person component) between October 2021 and February 2022.¹ About two thirds of surveyed CF patients and families feel that the quality of telehealth visits is as good or better than in person care.² This data suggests that cystic fibrosis care will continue to encompass some degree of telehealth going forward.</p> <p>1 https://www.cff.org/community-posts/2021-10/feedback-my-sons-cf-care-team-together-we-make-it-better</p> <p>2 Solomon GM, Bailey J, Lawlor J, Scalia P, Sawicki GS, Dowd C, Sabadosa KA, Van Citters A. Patient and family experience of telehealth care delivery as part of the CF chronic care model early in the COVID-19 pandemic. J Cyst Fibros. 2021 Dec;20 Suppl 3:41-46. doi: 10.1016/j.jcf.2021.09.005. PMID: 34930542; PMCID: PMC8683126.</p>	<p>Thank you for your comment, our update of the review found similar results and we revised the report accordingly.</p>
Public Commenter #2 (Cystic Fibrosis Foundation)	KQ3	<p>CF care teams report several advantages of telehealth for patients, including less time spent traveling and away from work, ability to stay connected with care teams during the pandemic, and earlier identification of health issues. Indeed, telehealth visits facilitate same day urgent assessments by the specialized CF care team to triage patients with new or changing symptoms so that treatment is not delayed or deferred to an emergency room setting. Likewise, telehealth provides a platform for interim assessments between clinic visits when frequent contact is required for dynamic clinical situations such as active mental health or pulmonary issues, or titration of new medications. The incorporation of telehealth into clinical practice has been an unanticipated consequence of the pandemic and should remain a viable method to enhance traditional care delivery. A means by which to access timely and specialized care, such as telehealth, is particularly important in chronic, rare diseases where expertise is geographically disparate, and the burden of treatments and medical visits are already quite high for patients and their families.</p>	<p>Thank you for your comment. The report mentions results suggesting that access may be improved due to reduced need for travel. We also report, based on the new studies from the update, that costs are reduced due to less need for travel.</p> <p>We appreciate your comments regarding telehealth and how it facilitates care (specifically for specialized care). We assessed health outcomes in the draft report from both the perspective of providers and patients in our qualitative synthesis (KQ3).</p> <p>Health outcomes in patient populations with specific diseases were addressed in Key Question 2, in the clinical area "Care for specific conditions, Other Conditions".</p>

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Public Commenter #2 (Cystic Fibrosis Foundation)	General	Clinicians and patients are working to understand how to best integrate telehealth into management of this chronic, multi-system disease. ⁴ CF care teams are multi-disciplinary and include physicians, nurses, respiratory therapists, dietitians, social workers, and program coordinators, at a minimum. Telehealth offers an alternate venue for synchronous, comprehensive visits with all team members without additional infection risk. Conversely, telehealth also facilitates additional visits with specific team members if specific areas of concern and focus are identified such as weekly visits with the CF dietitian if malnutrition is recognized.	Thank you for your comment.
Public Commenter #2 (Cystic Fibrosis Foundation)	General	Care guidelines recommend routine appointments every 3 months for most patients, including assessment of vital signs, lung function, and nutritional status. Collection of respiratory specimens for cultures and blood laboratory values are also standard components of care. Understanding how to best collect and integrate remote monitoring data to enrich the value of telehealth is a significant undertaking. The CF Foundation is leading a body of research to investigate how high-quality telehealth may supplant or supplement certain elements of the intensive CF care model and for which CF patients.	Thank you for your comment. Remote monitoring was beyond the scope of our review.
Public Commenter #2 (Cystic Fibrosis Foundation)	KQ3	While there has been widespread adoption of telehealth across CF patients and providers since 2020, there are several barriers related to the provision and use of telehealth that were not mentioned within this systematic review and may warrant consideration and inclusion. A key barrier not identified in this draft is provider licensing. Providers continue to report that licensing creates a significant barrier to telehealth care for patients with a rare disease like CF who often receive care across state lines. Because CF care is highly specialized, over 10 percent of people with CF receive care in a different state than their state of residence, according to the CF Foundation patient registry. ⁵ People living with cystic fibrosis may seek care in another state for a variety of reasons, including geographic proximity to the state line, access to specialists with expertise in their specific CF-related complications, or enrollment in clinical trials. For example, those who harbor certain bacteria or have had a lung transplant may need to travel out-of-state to get appropriate care. In these cases, if physicians are not licensed in the patients' state of residence, remote care may be entirely inaccessible. Further, differences in licensing between provider types (i.e., physicians and advanced practice providers) can potentially create disjointed care and reduce the opportunities telehealth provides.	Thank you for your comment. While we agree that licensing may be an issue, we did not find any studies addressing this issue. We have now explicitly included this issue as a limitation of the evidence in the Discussion.



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Public Commenter #2 (Cystic Fibrosis Foundation)	General	Access to remote monitoring technology can be another obstacle to telehealth care. In response to the immediate concerns around COVID-19 infection at the beginning of the pandemic, the CF Foundation distributed handheld spirometers for patients to use at home, as these devices are typically not covered by insurance. Patients also relied on home scales and pulse oximeters and some CF care centers set up methods for collecting sputum or throat specimens by mail. These ad hoc solutions provided short-term access during the pandemic but gaps in evidence and paucity of best practices for collection of high quality remote data to guide clinical decision-making and corresponding insurance coverage remain. When asked about ways to improve telehealth care, improved access to reliable remote monitoring devices was the most common recommendation among people with CF, including the ability to accurately measure lung function, weight, and other vital signs. ⁶ Expanded insurance coverage of home monitoring devices could help overcome this barrier and improve the quality of telehealth visits by ensuring the availability of adjunct data to inform clinical decision making.	Thank you for your comment. Remote monitoring was not within the scope of our review.
Public Commenter #3 (APA)	General	For mental and behavioral health services, we recommend noting the importance of informed consent before beginning the therapeutic relationship via telehealth. Please see the APA Joint Task Force for the Development of Telepsychology Guidelines for Psychologists' (2013) Professional practice guidelines for the practice of telepsychology.	Thank you for your comment We conducted a systematic review addressing various impacts of telehealth on healthcare including, harms and benefits, success (as measured by barriers/facilitators/satisfaction), and implementation. We did not identify information on informed consent in the literature.

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Public Commenter #3 (APA)	KQ3	We recommend further highlighting that for many patients seeking mental and behavioral health services, the availability of telehealth and audio-only services increases their ability to participate in treatment; for example, many people with disabilities either cannot drive and lack services to transport them to in-person appointments, or experience heightened anxiety during in-person appointments and require the familiarity of their own homes to fully engage in treatment. Further, access to telehealth for mental and behavioral health services allows patients from underserved communities—such as rural areas and communities of color—to access these services, often for the first time. For many patients seeking mental and behavioral health services, the availability of telehealth and audio-only services increases their ability to participate in treatment. The availability of audio-only telehealth is particularly beneficial to many older patients who may lack the familiarity with the technology necessary for an audio/video telehealth appointment.	Thank you for your comment. The draft report and subsequent revised document included information on patient and provider access—including the mental health field.
Public Commenter #3 (APA)	KQ2 and KQ3	It would be beneficial in current and future reports to make clear distinctions between the research on mental and behavioral health care and the research on the rest of health care as behavioral health and mental health is uniquely suited for the use of telehealth and this specialty does not experience some of the challenges noted in the report such as the inability to conduct physical exams.	Thank you for your comment. We stratified the information we collected by type of care, when possible. For measures of success (KQ3), there was a large body of data on mental health, but this question was not designed to compare use of telehealth by those with different conditions.
Public Commenter #3 (APA)	KQ2	On page 53, we recommend revising the following sentence to ensure language is respectful and inclusive per APA's (2021b) Inclusive Language Guidelines. We also recommend referring to these guidelines and reviewing the draft review in its entirety to ensure inclusivity. Three studies reported adverse events rates among pregnant women individuals or those seeking prenatal or gynecological care. ^{56, 70, 76}	Thank you for the comment, we have replaced “women” with “patients” throughout the report, as appropriate.

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Public Commenter #3 (APA)	KQ3	In the spirit of inclusivity, we also recommend highlighting the need for more research on patient and provider perspectives on telehealth for individuals with disabilities to reduce the likelihood of further disparities in the disability community's access to telehealth (Valdez et al., 2021). For instance, a pilot study that examined the quality of telehealth services for Deaf and Hard-of-Hearing individuals with chronic mental illness who lived in rural areas found that the quality of telehealth services was equivalent to face-to-face sessions in terms of coping with the illness (Crowe et al., 2016). However, in a recent survey of 95 Deaf individuals who received telehealth during the COVID-19 pandemic, about 65% of the individuals reported experiencing communication challenges during these services, where some noted that interpreters assigned to them did not have the proper health interpreter certification (Mussallem et al., 2022).	Thank you for the suggestion for future research. We have added this to the Discussion.
Public Commenter #3 (APA)	General	We also recommend highlighting the need for further outcome research on transgender and gender diverse communities' experience and perspectives on telehealth services (Mintz et al., 2022).	Thank you for the suggestion for future research. We have added this to the Discussion.
Public Commenter #3 (APA)	KQ3	We appreciate the extra attention given to examining the appropriateness of fit of using telehealth in diverse populations, including noting that culturally, some populations may prefer face-to-face sessions over telehealth.	Thank you for your comment.
Public Commenter #3 (APA)	KQ2	Differences are noted in hospitalizations and ED visits for patients receiving initial/ongoing telehealth versus in-person care. In those studies, were there differences in patients' health status at the onset of the study? That is, is it possible that individuals with more health challenges found it easier to access telehealth versus in-person visits given these challenges or accessed telehealth instead of in-person due to greater fear about catching COVID-19? Please emphasize the low quality of these studies when highlighting these points so that policy makers do not make policy decisions cutting access to telehealth based on low quality evidence.	Thank you for your comment. Most studies showed comparable baseline participant characteristics or provided limited information on this factor. There were five studies that looked at ED visits and hospitalizations with comorbidities. We have highlighted these results in Key Question 2b: "Do the benefits and harms of telehealth during the COVID-19 era vary by patient characteristic?"
Public Commenter #3 (APA)	General	For guidelines on the provision of mental and behavioral health services via telehealth, please refer to the Guidelines for the Practice of Telepsychology (Joint Task Force for the Development of Telepsychology Guidelines for Psychologists, 2013; please note that the guideline is currently under review for update as it will be approaching the 10-year mark). This guideline covers topics such as competence, standards of care, informed consent, confidentiality, data/information security and disposal, testing/assessment, and interjurisdictional practice.	Thank you for your comment.

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