

between a telemedicine visit and an in-person visit. This issue is particularly salient, since numerous states have passed parity laws mandating that telemedicine encounters be reimbursed at the same level as equivalent in-person visits. Other important factors include whether greater use of telemedicine results in fewer laboratory or imaging orders and whether telemedicine utilization can affect the need for costly downstream care, such as hospitalizations.

The effect of telemedicine on spending is likely to vary, depending on the population, setting, condition, and mode of interaction. These differences may dictate future policy. To date, Congress has permanently expanded telemedicine reimbursement for only certain populations (e.g., patients in rural areas) and conditions (e.g., acute stroke), relying on an assumption that telemedicine is more cost-effective in these contexts than for other patients and conditions.

Investigators seeking to quantify telemedicine's effect on spending can't simply compare telemedicine users and nonusers, given underlying differences between these patient populations. Randomized, controlled trials and robust observational studies that minimize selection bias and measure health care spending beyond a single visit will be critical.

Proponents of permanent telemedicine expansion cite evidence that during the Covid-19 pandemic, use of outpatient services has remained at or below pre-pandemic levels.² Other factors, most notably fear of Covid-19 infection, however, have probably contributed to keeping overall utilization in check. A 2-year policy

extension would provide an opportunity to study utilization and spending during a "new normal."

The second question that could be informed by further research is whether telemedicine improves patient outcomes. There's continued debate about whether telemedicine results in lower-quality care than traditional visits. Many randomized trials comparing telemedicine with in-person care have found that telemedicine is a safe clinical option; however, these studies have had important limitations and have evaluated only a small fraction of telemedicine's myriad applications. Moreover, trials have generally compared fully virtual care with in-person care,³ even though it's uncommon for clinicians with brick-and-mortar practices to treat a patient only through telemedicine. It will therefore be important to determine whether there's an ideal "dose" of telemedicine in the context of hybrid care models. In some clinical scenarios, a fully virtual model may be sufficient, whereas in other cases, quality may suffer if a substantial proportion of care is virtual. Finally, clinicians are using a wide range of methods to interact with patients — from audio-only and video visits to portal messages and remote patient monitoring. Ideally, policies would be informed by assessments of these mixed models as well as by data on the effects of telemedicine expansion on other components of care (e.g., cancer screenings and vaccinations).

The third question is whether telemedicine advances health equity. Policymakers have expressed hope that telemedicine could make it easier for members of underserved populations to obtain care and could thereby

narrow disparities in access and outcomes. Because of the digital divide, however, members of underserved populations may be less likely to use telemedicine than more advantaged patients, who would then disproportionately benefit from its expansion.


Studies of telemedicine uptake among various populations have come to conflicting conclusions, with some finding higher uptake among members of marginalized populations than among more advantaged patients and others finding the opposite.^{4,5} More research is needed to determine what factors might explain these conflicting findings, whether audio-only visits are responsible for the high rates of telemedicine utilization that have been observed among some marginalized populations, and whether differences in telemedicine use translate into differences in outcomes. Digital-inclusion strategies that could lead to greater engagement in video visits will also need to be evaluated.

Changes in clinical care typically occur over the course of decades, with evidence to guide those changes building over time. The sudden shift to telemedicine in the United States in March 2020 was a notable exception. Although some research has been conducted on the effects of this shift, there's still much to learn. Beyond these three research questions, other important areas of investigation include the risk of fraud and abuse associated with telemedicine and telemedicine's effects on clinician satisfaction, efficiency, and income.

Extending temporary policies for another 2 years has a downside, since doing so will probably change the burden of proof that

will be necessary to reverse course. By mid-2024, telemedicine will have been commonplace for more than 4 years. Patients and clinicians value and will come to expect the convenience (e.g., time savings and reduced need to travel) that telemedicine provides and will most likely protest restrictions on its use. To justify new limits, there would need to be compelling evidence that, in certain clinical scenarios, telemedicine is unsafe for patients or for society more broadly (e.g., because it results in widespread prescription-drug diversion) or that it leads to substantial increases in spending.

Policy options go beyond deciding to cover or not cover telemedicine services. The answers to the research questions above could guide other strategies. In clinical situations in which telemedicine services are of low value, for example, patients could be charged higher copayments for telemedicine visits than for in-person visits. Alter-

 **An audio interview with Dr. Mehrotra is available at NEJM.org**

to the research questions above could guide other strategies.

natively, some telemedicine visits could be reimbursed at lower rates than in-person visits, in part to encourage clinicians to curb their telemedicine use. Data may also ultimately support the increased use of bundled models in which responsibility for increased spending associated with expanding telemedicine is shifted to providers. Finally, although audio-only visits could continue to be covered, health plans might require an attestation from a clinician that they offer reasonable accommodations to patients who face barriers to engaging in video visits and that the patient declined a video visit.

Delaying important policy decisions is common practice in the United States and is often a sign of government dysfunction. In this case, however, short-term extensions of telemedicine policies create an opportunity to ensure that permanent policies enacted in future years are informed by the best possible evidence.

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Health Care Access on the Line — Audio-Only Visits and Digitally Inclusive Care

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Since March 2020, health care has undergone a rapid digital transformation. Yet evolving and complex disparities in access to digital health care have disproportionately affected members of historically marginalized communities who also face barriers to obtaining in-person care.¹ We are hopeful that in the future, health care will be more digitally inclu-

sive and all patients will be equally able to take advantage of digital health technologies, including video-based telehealth visits. But for the time being, audio-only visits will continue to be an essential option for patients who lack the resources — including Internet and device access and digital literacy — needed to obtain video-based digital health care.

Most patients and providers have been affected by the rapid adoption of telehealth as a form of care whose usefulness became strikingly clear during the Covid-19 pandemic. Telehealth is now part of the fabric of the U.S. health care system. There's been a sense of hope that telehealth and digital tools will usher in a new era of lower-cost, patient-