


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-

Telemedicine Visits, by Specialty and Mode of Interaction, at Johns Hopkins Medicine.*			
Specialty	All Telemedicine Visits	Video Visits	Audio-Only Visits
	number	number (percent)	
Total	1,471,259	1,228,721 (84)	242,538 (16)
Primary care	445,592	388,841 (87)	56,751 (13)
Mental and behavioral health care	341,914	247,268 (72)	94,646 (28)
Other specialty	683,753	592,612 (87)	91,141 (13)
Top subspecialties, by volume			
Oncology	72,076	60,031 (83)	12,045 (17)
Cardiology	55,602	45,313 (81)	10,289 (19)
Gastroenterology	51,896	49,436 (95)	2,460 (5)
Neurology	45,351	41,496 (91)	3,855 (9)
Endocrinology	39,129	36,644 (94)	2,485 (6)

* Data are for the period from March 16, 2020, through August 30, 2022, and cover all payers. Primary care includes family medicine, geriatric medicine, internal medicine, and pediatrics. Mental and behavioral health care includes psychiatry, psychology, and addiction medicine.

centered health care. But history has taught us that telehealth technologies won't result in more effective and equitable health care without substantial political will and follow-through.² Telehealth technologies have existed for decades, but these tools alone will never close access gaps unless their deployment is coupled with a strategic and coordinated approach to promoting equity.

Before the pandemic began, public payers such as Medicare and Medicaid generally didn't reimburse for telehealth visits that occurred when patients were in their homes. Prepandemic requirements also typically defined telehealth visits as being conducted by video (two-way audiovisual communication) rather than over the telephone (an audio-only connection). The federal 2022 Consolidated Appropriations Act extended many Covid-related telehealth waivers for Medicare, including those broadly permitting

video-based and audio-only care, until 151 days after the Covid-19 federal public health emergency ends. Although substantial public attention has focused on continuing to allow patients to receive telemedicine-based care at home, less attention has focused on maintaining coverage of audio-only visits. If Congress doesn't pass additional legislation and the proposed 2023 Medicare Physician Fee Schedule goes into effect, Medicare will no longer cover audio-only visits outside mental health care — and even that coverage may come with restrictions.

Bold action is needed to ensure that the current digital health transition helps bring about a more equitable — rather than an even more inequitable — care delivery system. We believe audio-only (telephone-based) visits currently represent an important stepping stone to digitally inclusive health care.

Audio-only visits are distinct from routine telephone calls for discussing lab results, refilling medications, or arranging appointments. During audio-only telemedicine visits, clinicians can evaluate the symptoms and medical history described by a patient and, if clinically appropriate, develop a management plan. Although audio-only visits aren't appropriate in all cases, there are many conditions that can be managed over the phone.

In our experience at Johns Hopkins Medicine, audio-only visits have been vital health care access points in various specialties. Of the more than 1.4 million telehealth visits that occurred systemwide between March 2020 and August 2022, approximately 16% were audio-only visits (see table). Audio-only visits accounted for 26% of encounters with Medicare beneficiaries. Of nearly 250,000 audio-only visits, approximately 23% were for primary care, 39% were for mental health care, and 38% were for specialty care. In August 2022, more than 2 years into the pandemic, 11% of telemedicine visits were audio-only visits, including 17% of encounters with Medicare beneficiaries.

We have found that use of audio-only visits isn't equally distributed among patient groups. More than 2 years of experience has shown increased use of audio-only visits among marginalized groups, including greater use among patients who identify as Black as compared with those who identify as White, patients whose primary language is Spanish as compared with primarily English-speaking patients, older as compared with younger patients, and publicly insured as

compared with privately insured patients. There has been high reliance on audio-only visits among patients in some rural counties and those living in urban, predominantly Black neighborhoods in East and West Baltimore. Nearly 60% of telemedicine visits with adults older than 65 years living in the ZIP Code next to Johns Hopkins Hospital have been audio-only visits. Patients in the suburbs of Baltimore and Montgomery Counties, on the other hand, have been far more likely to use video visits instead of audio-only visits.

Nationally, federally qualified health centers³ and the Department of Veterans Affairs health care system⁴ have reported an even greater reliance on audio-only care during the past 2 years. In some of these health care systems, audio-only care has accounted for the majority of telehealth visits during the pandemic. In addition to not having access to the appropriate technology for video visits, some patients may prefer audio-only visits because they do not trust video platforms.

We believe maintaining both public and private insurance coverage of audio-only visits for a broad range of health care specialties is an important component of the long-term strategy for ensuring a digitally inclusive health care system. As evaluation of the quality and appropriateness of audio-only care continues, maintaining broad coverage is the only way to guarantee that outpatient telehealth visits remain widely accessible to patients in the short term.

Maintaining such coverage is important for patient choice. No single mode of interaction will meet the needs of all patients for

all health conditions. Audio-only visits have many applications, including subspecialty chronic-disease management and postdischarge follow-up. Patient choice and a practitioner's assessment of clinical appropriateness should be the driving factors in determining which mode of care is accessible and appropriate to meet an individual patient's needs.

Coverage of audio-only visits is also valuable for providers who care for patients with digital-access challenges. Requiring a stable video-based connection for all telehealth visits would leave clinicians in a difficult position when they encounter the inevitable technical failures that can occur with video platforms, especially during interactions with patients who also face barriers to obtaining in-person health care. Without appropriate coverage, if a video visit fails, clinicians might be left with the choice between asking a patient to attend an in-person visit and not billing for services. In addition to being a convenient option for patients when clinically appropriate, audio-only care is an important backup means of providing telemedicine services when video-based options fail.

The health care landscape is rapidly becoming more digital. Without action, marginalized patient populations will be left behind as health care becomes more accessible for people who easily navigate the digital world. Video-based telehealth technologies are inaccessible to many patients; as of 2018, more than 40% of Medicare beneficiaries didn't have access to a computer with a high-speed Internet connection at home.⁵

Before policymakers and pro-

viders can abandon audio-only visits, strategic national investment is needed to ensure that telehealth technologies support health equity rather than undermine it. A thoughtful and strategic approach could be used to transform digital health care to work better for all patients,¹ but digital-equity initiatives need to be backed by incentives and scaled up. The perspectives of diverse groups of patients should be at the center of efforts to redesign health care delivery. The federal government, state governments, and health care systems should leverage (with accompanying financial investment) community-engaged partners to co-design solutions. As the Centers for Medicare and Medicaid Services and state agencies enact new telehealth regulations, policymakers could consider giving health care systems and the tech industry incentives to address digital equity. Policymakers could also encourage research agencies to fund rapid-cycle research and evaluation that would inform our collective understanding of what tools work for which patients and would help ensure that all patients benefit from having more digital health care options.

In the meantime, Congress and state legislatures have the authority to guarantee continued coverage of audio-only visits for Medicare and Medicaid beneficiaries after pandemic-era flexibilities end. We believe it should pass legislation to ensure ongoing telehealth access, including access to audio-only visits, and should empower patients and clinicians to choose when an audio-only visit is the best way to deliver care. Telehealth is here to stay, but policy decisions in the

aftermath of the Covid-19 pandemic will determine whether it will be a tool for supporting health equity or simply another element of an expensive health care system that deepens entrenched disparities in access to care.

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Monkeypox — A Sobering Sentinel for Pandemic Preparedness and Sexual Health System Capacity

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Between May and mid-October 2022, clinicians diagnosed more than 72,000 cases of monkeypox in 102 countries that aren't typically affected by the virus (see map).¹ This new pandemic has strained public health and health care systems already battered by Covid-19. It has also highlighted lessons learned — and sometimes ignored — from HIV and Covid-19 and has illustrated the inadequacy of sexual health infrastructure and pandemic preparedness in the United States.

In the current pandemic, we strongly believe monkeypox should be considered a sexually transmitted infection (STI).² The virus can be isolated from semen and rectal and oral fluids, and most patients have presented with anogenital or oropharyngeal lesions, frequently in association with HIV or other STIs.^{2,3} Whether to categorize monkeypox as an STI has been a controversial question. Although recent monkeypox epidemics in sub-Saharan Africa

have been characterized by genital ulcers in some patients and a shift in the affected population from children to young adults, little attention has been focused on sexual transmission, despite calls from African investigators to explore this issue.⁴ The virus is also transmissible through nonsexual contact with lesions, possibly through contact with the mucosa of infected persons without lesions, and, much less commonly, through fomites and perhaps respiratory secretions.

The common tendency to categorize infections as either STIs or not STIs is overly simplistic. Many common STIs can be transmitted through nonsexual contact, and people with some STIs, such as syphilis, commonly present with nongenital lesions. Human papillomavirus, HIV, herpes, syphilis, and potentially gonorrhea are transmissible through modes of contact other than vaginal, anal, and oral sex. Conversely, many infections that aren't typically classified as STIs

can be transmitted through sex (e.g., shigella, Zika, and Ebola). The current monkeypox pandemic probably wouldn't have occurred in the absence of sexual transmission — unlike the recent Ebola or Zika epidemics, for example — and people can substantially reduce their risk of monkeypox by changing their sexual behavior. We therefore believe it's appropriate to consider monkeypox an STI while acknowledging that not every case is sexually transmitted and not every monkeypox epidemic is driven primarily by sex.

Monkeypox-related public health communications have proven similarly controversial. The current pandemic is concentrated among men who have sex with men (MSM), including those who have HIV or are using preexposure prophylaxis for HIV. Among U.S. cases for which data are available, 98% have been in people assigned male sex at birth, and 93% have been in gay or bisexual men.⁵ Some public health