ABSTRACT
ISSUE: In response to the COVID-19 pandemic, many temporary policies were introduced to encourage telemedicine use. There is ongoing debate on what policies should be made permanent.
GOAL: To provide both a framework for how to evaluate telemedicine policies and recommendations on future telemedicine guidelines.
FINDINGS: To encourage higher-value use of telemedicine and discourage overuse of care, we recommend that payments should be limited to services for selected patient populations and health conditions, or to services from providers that are paid via alternative payment methods. While we recommend permanently eliminating many regulatory barriers, we do not support telemedicine payment parity.
CONCLUSION: Telemedicine policy in the form of both regulation and payment must balance the goals of increasing access to care and limiting overuse and fraud.

TOPLINES
- Insurers and policymakers face a difficult challenge in designing an optimal payment and regulatory policy for telemedicine.
- Policies should promote high-value applications of telemedicine but guard against significant overuse.
INTRODUCTION: WHY WE NEED TELEMEDICINE POLICIES

After decades of being touted as the future of health care, telemedicine has suddenly become commonplace. This growth, fueled by the COVID-19 pandemic, has been facilitated in part by sweeping changes in regulations and payment across health care — Medicare, Medicaid, private insurers, and states. Telemedicine groups,1 employer coalitions,2 physicians,3 and many lawmakers4 have lauded these changes and called for some or all of them to be made permanent.5 But should they be?

The Telemedicine Landscape, Then and Now

Before the pandemic hit, telemedicine payment and regulations were a confusing labyrinth. Providers had to consider: 1) Medicare payment policy, as well as numerous federal agency regulations;6 2) state policies, including parity laws, licensing board regulations, and state-specific Medicaid rules; and 3) private insurance rules and regulations. Nevertheless, the number of telemedicine video visits was growing by 30 to 50 percent per year,7 even though they constituted a fraction of the one billion office visits in the U.S. annually.

Then came COVID-19. Ideally suited to addressing fundamental challenges posed by the coronavirus,8 telemedicine enables clinicians to safely triage and treat patients with COVID-19 or patients concerned that they have the virus. Telemedicine can also help manage chronic illnesses or other non-virus-related problems without putting patients at risk. Because these benefits were widely recognized, Medicare, states, and private insurers made numerous changes to encourage use of telemedicine (Exhibit 1).9

Providers responded immediately, with use of telemedicine rising sharply in mid-March, as shown in Exhibit 2. Speaking about recent changes to telemedicine policy, Centers for Medicare and Medicaid Services (CMS) Administrator Seema Verma said, “I can't imagine going back.”10 Most would agree. But which temporary changes should be made permanent, and which should we let lapse?

Exhibit 1. Examples of temporary changes to telemedicine payment and regulations during the COVID-19 pandemic

| Telemedicine visits can be provided to patients in their homes (e.g., Medicare, Minnesota) |
| All out-of-pocket costs are waived for telemedicine visits (e.g., numerous insurers) |
| Payment is mandated for audio-only telephone communications (e.g., Medicare, New York) |
| Visits are no longer limited to rural residents (e.g., Medicare) |
| Requirement that provider be licensed in the state of the patient’s practice is waived (e.g., Rhode Island, Massachusetts) |
| Providers may issue prescriptions for opioid use disorder based on a telemedicine visit (e.g., Drug Enforcement Administration) |
| HIPAA requirements for software will not be enforced during the emergency action (e.g., Medicare) |
| The types of care that can be provided are expanded (e.g., to include home health) |
| The types of providers that can deliver a telemedicine visit are expanded to include occupational and physical therapists, among others (e.g., Medicare) |
Although the pandemic may be with us for a long time, the decision on long-term post-pandemic plans is urgent. Early in the pandemic, medical practices quickly adapted to video visits or, more often than not, phone calls. After the initial surge of telemedicine uptake, many physicians returned to in-person visits, in part because of uncertainty over telemedicine’s long-term sustainability.\textsuperscript{11} To implement video telemedicine effectively in the long term, practices must buy the right technology, invest in staff training, change clinical schedules, and help their patients obtain and navigate the necessary technology. They will undertake this investment only if they can recoup it within a reasonable number of years.

Given there are few regulations and payment policies specific to in-person visits, why do we even need telemedicine-specific policies? Because telemedicine’s ability to make care convenient and more accessible — the key to its enormous potential to improve the health of many patients — may also be its Achilles’ heel. In some cases, telemedicine is too convenient, even encouraging excessive use of care. For example, after an in-person visit, a physician could easily add a quick follow-up telemedicine visit that increases costs without substantially improving health. Not surprisingly, the Congressional Budget Office has projected that telemedicine expansions will increase health care spending.\textsuperscript{12}
THREE OVERARCHING PRINCIPLES FOR
TELEMEDICINE POLICY

How should insurers and payers think through telemedicine policy in a principled fashion?

1. **There should be no single telemedicine policy, just as there can be no single policy for insurance coverage of prescription drugs.** In the same way different drugs yield different outcomes, telemedicine may provide health benefits for certain clinical uses. For example, telestroke could save lives. On the other hand, telemedicine visits for the common cold have little clinical benefit.

2. **Telemedicine policy decisions should be formulated through the lens of value.** Value here is defined as the dollars per improvement in care outcomes and access to care, including reductions in travel time, disruption to lives, and need for childcare. Like all medical technologies, telemedicine will typically increase spending. Under a value framework, the questions are: a) whether the improvements in care outcomes or access are worth this increased cost, and b) how higher-value applications of telemedicine can be encouraged.

   Value is dictated not only by the condition treated but also by the patient receiving care. Consider two patients with depression. One lives in rural Alaska with no access to local providers and with substantial transportation barriers. Telemedicine could be the only way he can access care and improve his condition. The second patient lives in Anchorage. Her depression is well controlled, she sees her psychiatrist every month, and she is on effective medications. There is minimal value in an additional telemedicine visit every two weeks for her depression. As described below, many telemedicine policies target patient populations that are most likely to benefit from improved access.

3. **The key to successful telemedicine policy is greater simplicity.** The current regulatory and payment environment for telemedicine is extremely confusing. A telemedicine provider must consider federal policy, potentially 50 different state policies, and countless private plan policies. This confusion has been a major deterrent to use of telemedicine.

Components of Value

Value in telemedicine encompasses quality, costs, and access. We highlight important factors in each domain that payers and policymakers should consider.

**Quality.** To date, most telemedicine research has focused on the equivalency of in-person visits and telemedicine visits. In general, randomized trials have supported the idea that telemedicine is of equal quality. Our concern, however, is that this research has been used to support the idea that all forms of telemedicine are safe and therefore should be reimbursed. Telemedicine video visits are limited by the inability to complete a full physical exam and obtain ancillary testing. For example, it is impossible to reliably diagnose an infant with an ear infection without looking at her ear drum — and, not surprisingly, telemedicine visits for ear infection result in overuse of antibiotics. There are also concerns that telemedicine makes fraud easier to commit.

The quality of telemedicine also depends on having equipment available to patients. To be most effective, telemedicine often requires devices such as home oxygen monitors, EKGs, and stethoscopes. For example, a video of a child’s eardrum obtained by the parent via a video-enabled otoscope could allow a physician to accurately diagnose an ear infection. In “hospital at home” programs, telemedicine enhanced with home-monitoring equipment is essential for enabling physicians to manage serious conditions such as pneumonia and heart failure.

**Spending.** From the payer’s perspective, three factors drive telemedicine’s impact on spending:

1. **The proportion of telemedicine encounters that are substitutive versus additive.** Spending is reduced if lower-cost telemedicine visits substitute for costlier in-person ones. However, the convenience of telemedicine may induce new use. In previous work, we estimated that when telemedicine is for treatment of low-acuity conditions, such as sinusitis, roughly 90 percent of visits are additive and only 10 percent are substitutive. Overall, telemedicine for these conditions increased spending.
The clinical condition is a key driver of the balance of substitutive versus additive care. Common conditions such as rashes and colds are most prone to additive care, since most people do not seek treatment for these. In contrast, acute conditions such as stroke, for which most already receive treatment, are less prone to increased utilization. Also driving the balance between substitutive versus additive is how telemedicine is being used. Visits are more likely to be additive if telemedicine is used as a triage tool and if most patients still get a follow-up in-person visit — or if providers begin billing for follow-up phone visits, which previously they did not bill for.

2. The relative cost difference between telemedicine visits and equivalent in-person visits. If a telemedicine visit is reimbursed at a much lower rate than an equivalent in-person visit, increased use of care may not contribute to an overall increase in spending. Even before the pandemic, Medicare paid the same amount for a video visit, and many states have passed laws mandating that telemedicine encounters be paid at the same level as equivalent in-person visits. Although payment parity may spur more providers to adopt telemedicine, it could contribute to increased spending. Lower reimbursement for telemedicine visits may be appropriate, since they can be provided at lower cost. Many health systems create telemedicine provider spaces in lower-cost facilities, or providers work from their home.

3. Downstream care. Telemedicine may decrease spending if it is deployed in settings where there is a costly and preventable downstream event, such as an emergency room visit, inpatient admission, or specialty referral. In these cases, telemedicine may reduce spending even if upfront use of services increases. For example, among older, sicker nursing home residents, after-hours telemedicine coverage decreased spending by deterring costly emergency department transfers and inpatient admissions.

Access. A common erroneous assumption is that if telemedicine is offered to the full population, it will be used most by patients with difficulty accessing care. In fact, the opposite may be true. For example, when a company offered telemedicine to all its employees, those who used telemedicine for lower-acuity conditions tended to be younger than the rest of the population and to live in an urban community with an ample supply of clinicians. Older adults, the poor, communities of color, and patients who visit a community health center are all less likely to have the technology necessary to conduct a video visit. Indeed, in certain settings, telemedicine may actually increase disparities in care.

A second access consideration is the form of telemedicine being used. Video-based telemedicine visits were relatively uncommon before the pandemic. In contrast, unreimbursable forms of telemedicine, including patient portals or email, were common. “Virtual endocrinology” providers, for example, have introduced continuous patient monitoring using internet-connected glucose monitors and smart phone apps. Insulin adjustment occurs through a variety of means, from automated feedback on apps to glucometers and text messages. These other forms of telemedicine complicate the conversation about payment and regulations. While it seems feasible for an insurer to pay for a video visit, it is hard to envision paying a provider for each text message, portal exchange, or app use. These forms of telemedicine are better suited to alternative payment models rather than to fee-for-service.

Policies Available to Insurers and Regulators

Insurers and policymakers face a difficult challenge in designing an optimal payment and regulatory policy for telemedicine. One strategy is to move away from fee-for-service to alternative payment models such as full or partial capitation and bundled payments. These payment models put providers at financial risk if spending is too high. The assumption is that providers will only use telemedicine when it is cost-effective and therefore will adopt higher-value telemedicine applications. This assumption has
driven Medicare’s policy allowing accountable care organizations more freedom in using telemedicine.

A second strategy is to **leverage benefit design**. Out-of-pocket costs in the form of copayments or coinsurance may deter low-value care. Introducing “time costs,” or inconvenience, can also deter low-value care. For example, Medicare requires telemedicine visits to be hosted at a local clinic, placing a time constraint on patients.

A third strategy is to **limit coverage to certain types of care**. Coverage decisions can be made based on the type of clinician, the medical condition treated, or the patient population (for example, rural residents, people with a disability, or immunocompromised individuals). Before the pandemic, we observed coverage decisions across all these dimensions. Medicare has allowed physicians, typically primary care providers, to use telemedicine for care transitions.24 The SUPPORT Act25 and FAST Act,26 meanwhile, explicitly expanded use of telemedicine for treatment of substance use disorder and strokes. And Medicare has typically paid only for telemedicine visits in rural communities. Underlying these coverage choices is the hope that the resulting telemedicine visits will be of higher value than in-person visits.

A fourth strategy lies in **setting payment rates** for a telemedicine visit relative to an in-person visit. We see examples of telemedicine payment rates that are below, equivalent to, and substantially above those for in-person visits. A physician practice’s margin (payment rate minus costs of delivering visit) for in-person versus telemedicine visits will drive a provider’s decision on how to use telemedicine. Because providers are typically payer-agnostic, individual decisions will be driven by payment averaged across the insurers of the provider’s patient population.

A fifth strategy category is **regulation**. For example, many payers and states require that patients and providers have an initial in-person visit before offering telemedicine. This could, in theory, deter fraud and encourage greater continuity of care. Other telemedicine regulations include limiting the number of telemedicine visits during a given period; requiring providers to obtain informed consent or have a provider (“telepresenter”) with the patient during the visit; limiting software to those that are HIPAA-compliant; and requiring providers to have special training. Possibly the most important regulation has been licensure and the requirement that all telemedicine providers (physicians, nurse practitioners, social workers) be licensed in the patient’s state. Many of these regulations are being waived during the pandemic.

**RECOMMENDATIONS**

How can we balance the goals of encouraging only high-value telemedicine and trying to maintain simplicity? Here are our recommendations.

1. **Increase use of alternative payment models.** Such payment models give providers the flexibility to use a package of telemedicine tools and in-person visits that are best suited for an individual patient’s clinical scenario. Paying only for video visits can deter innovative models like the virtual endocrinology example above. While Medicare has allowed telemedicine to be used under most of its alternative payment models, the keys are to expand the number of providers that can be paid and to ensure that rules facilitate telemedicine use.

2. **Make permanent nearly all regulatory waivers introduced during the pandemic.** These include requirements that providers: a) have an in-person visit before a telemedicine visit; b) host telemedicine visits at a clinical facility; c) be licensed in the patient’s state; d) obtain informed consent; and e) obtain special training. The prior regulatory framework across federal, state, and individual plans added tremendous complexity. Despite the laudable reasons underlying these regulations, we believe they are both relatively blunt and ineffective. We also agree with recent calls for a single federal regulatory framework,27 given that telemedicine is a form of interstate commerce. This would include proposed laws that allow a physician licensed in any state to provide care to any Medicare enrollee.
3. **Cover all forms of telemedicine for high-risk patient populations where access is likely difficult.** Coverage can be expanded beyond rural communities to patients who are cared for in federally qualified health centers, community mental health centers, and nursing homes, and people who have substantial physical or mental disability. There is one caveat: after the pandemic, audio-only (telephone) visits should not be reimbursed. Despite the fact that audio-only visits increase access, we believe they are more likely to be additive versus substitutive and therefore will increase spending. Also, because many patients do not feel a phone call is equal to a visit, there could be a backlash if patients incur out-of-pocket costs for such phone visits.

4. **For the rest of the population, cover telemedicine only where there is evidence of value or there is compelling need.** Such selective coverage decisions could be either by condition or by provider type. For example, we recommend other payers echo Medicare’s current coverage of telemedicine for stroke and opioid use disorder. Expansion could also be via provider. For example, in an effort to support continuity and financing of primary care, payers could reimburse designated primary care providers for any form of telemedicine visit.

5. **Pay for telemedicine visits at a lower rate than for in-person visits and avoid telemedicine parity laws.** While we recognize that implementing telemedicine does require significant investment in the short term, in the longer term a provider’s marginal costs for telemedicine visits should be lower than for in-person visits, and reimbursement should reflect those costs. Lower payment rates could also spur more competition through new, more efficient providers. At least for some patients, out-of-pocket costs could be increased for some forms of telemedicine.

6. **Encourage consistency across insurers.** If Medicare covers telemedicine for opioid use disorder but private insurers or Medicaid do not, then substance use treatment providers will be less likely to embrace telemedicine. CMS can require Medicare Advantage and Medicaid plans to echo some of its coverage decisions in the fee-for-service program. Private health plan decisions will have the greatest impact if they simply echo Medicare payment rules.

There is no single optimal policy, and the coverage decisions and payment choices we recommend are by no means perfect. They will deter some effective forms of telemedicine and add administrative burden. However, we believe they represent the best way to encourage higher-value forms of telemedicine while also balancing the need to decrease complexity.
NOTES


6. Examples of policies listed below.


12. Lori Housman, Zoe Williams, and Philip Ellis, Telemedicine (Congressional Budget Office, July 29, 2015).

13. For example, one trial comparing telemedicine visits to in-person visits used validated scales of depression severity; see Richard O’Reilly et al., “Is Telepsychiatry Equivalent to Face-to-Face Psychiatry? Results from a Randomized Controlled Equivalence Trial,” Psychiatric Services 58, no. 6 (2007): 836–43.


20. It could be argued that Medicare pays more for a video visit because there are often two payments for the visit: the payment to the provider who delivers the care, and an additional payment to the provider hosting the patient.

22. Lori Uscher-Pines et al., “Access and Quality of Care in Direct-to-Consumer Telemedicine.”


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*Editorial support was provided by Christopher Hollander and Maggie Van Dyke.*

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