the social standing of clinicians. But in times of turmoil, trust can also be built through high-frequency, low-stakes interactions — such as going to an organization's website to get questions answered and needs met, reliably and with transparency about what is known and what is not.

Many of the unknowns can be addressed only by plunging into the fourth task: regional coordination with government and other institutions. Health care providers have had to innovate and improvise to fill the gaps resulting from a long-standing underinvestment in our public health system and the enormity of vaccinating every American rapidly. Working with local government to set up sites for vaccinations at locations such as sports arenas and shopping malls and publicizing prioritization frameworks are two key steps. Another is facilitating information flow. For example, Intermountain Health developed an interoperable interface with the Utah immunization registry that gives clinicians from different health organizations real-time access to its patients' vaccine information — helping to ensure that people receive their second dose of the right vaccine at the right time.

An audio interview with Dr. Lee is available at NEJM.org

These are just a few examples of the work needed to bridge the divide in the United States between private and public sectors and between health care and public health. The government may be purchasing, allocating, and distributing the vaccine, but last-mile logistics depend heavily on the private sector. Neither government nor private organizations can be successful on their own.

All four tasks represent new types of work for U.S. health care organizations, but the skills they learn as they adapt will make them better organizations in general. To be speedy and equitable in crossing that last mile, they have to build trust, manage operations well, communicate more effectively, and collaborate with other public and private entities. Covid vaccination is providing a stress test that will help organizations prepare for other challenges that lie ahead.

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Telemedicine and Medical Licensure — Potential Paths for Reform

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The rapid growth of telemedicine during the Covid-19 pandemic has focused renewed attention on the debate over physician licensure. Before the pandemic, states typically licensed physicians according to policies outlined in each state's medical practice act, which dictate that physicians must be licensed in the state where the patient is located. This requirement creates substantial administrative and financial hurdles for physicians hoping to use telemedicine to treat out-of-state patients.

Early in the pandemic, many licensure-related hurdles were removed. Many states issued temporary declarations recognizing out-of-state medical licenses.[1] At the federal level, the Centers for Medicare and Medicaid Services temporarily waived the Medicare requirement that a clinician be licensed in the state where the patient is located.[2] These temporary changes enabled the care that many patients have received through telemedicine during the Covid-19 pandemic.

The growth of telemedicine is seen by some physicians, academics, and policymakers as a silver lining of the pandemic, and Congress is considering many bills that would facilitate the use of telemedicine. We believe that licensure reforms will be key to enabling increased use of these services.

Although states have main-

tained the authority to license physicians since the late 1800s, the growth of large national and regional health systems and the increased use of telemedicine have expanded the scope of health care markets beyond state borders. At times, a state-based system bucks common sense. We have heard stories of patients driving several miles to cross a state border to attend a primary care telemedicine visit from their car. These patients couldn't virtually attend the same appointment from home because their physician wasn't licensed in their state of residence.

There are also long-standing concerns that state licensing boards are overly focused on protecting their members from competition rather than on serving the public's interest. In 2014, the Federal Trade Commission successfully sued the North Carolina State Board of Dental Examiners, arguing that the Board's arbitrary prohibitions on nondentists providing teeth-whitening services violated antitrust laws. This Supreme Court case was later invoked in Texas to challenge licensure regulations that limited the use of telemedicine in the state.

What's more, the Constitution empowers the federal government to preempt state laws that interfere with interstate commerce. Congress has carved out certain exceptions to states' exclusive jurisdiction over licensure, specifically in the context of federal health programs. For example, the VA MISSION Act of 2018 requires states to allow out-of-state clinicians to practice telemedicine within the Veterans Affairs (VA) system. The growth of interstate telemedicine has created another opportunity for the federal government to intervene.

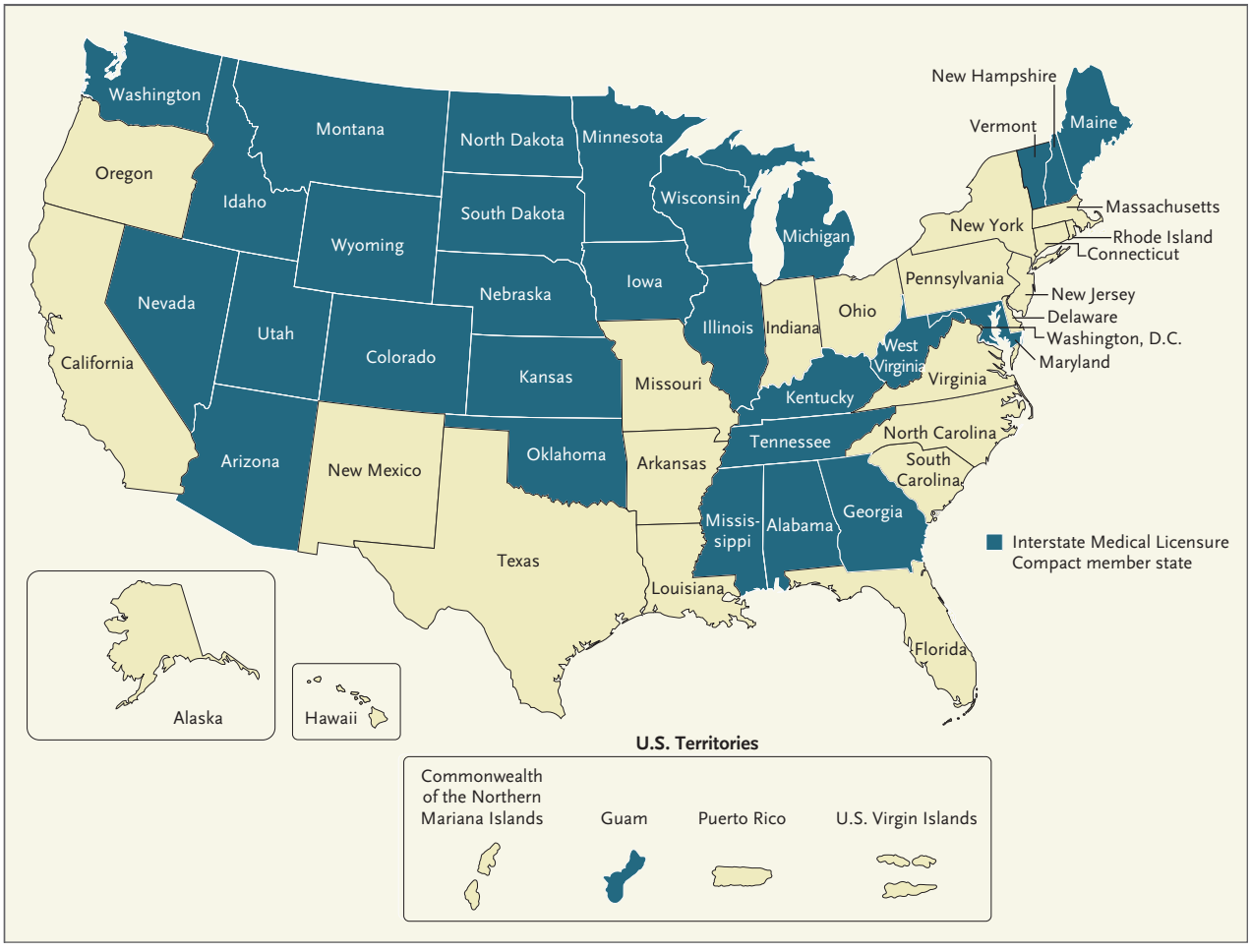
At least four types of reforms have been proposed or introduced to facilitate interstate telemedicine. The first approach builds on the current system of state-based medical licensing but makes it easier for physicians to obtain an out-of-state license. Implemented in 2017, the Interstate Medical Licensure Compact is a mutual agreement currently among 28 states and Guam to expedite the traditional process for physicians to obtain additional state licenses (see map). After paying a $700 fee to join the compact, a physician can obtain a license from other participating states for a fee ranging from $75 for a license in Alabama or Wisconsin to $790 for a license in Maryland. Among physicians in participating states, as of March 2020, just 2591 (0.4%) had used the compact to obtain a license in another state. Congress could pass legislation encouraging the remaining states to join the compact. Although use of this system has been low, expansion of the compact to include all states, reduction of fees and administrative burdens, and better advertising could lead to greater uptake.

Another policy option would be to encourage reciprocity, under which states automatically recognize an out-of-state license. Congress has already mandated licensure reciprocity for physicians practicing in the VA system, and the majority of states temporarily implemented reciprocity policies during the pandemic. Federal legislation in 2013 proposed permanently implementing reciprocity in the Medicare program.[3]

A third approach would be to license the practice of medicine on the basis of the physician's location instead of the patient's location. Under the 2012 National Defense Authorization Act, clinicians providing care under TriCare (the military health plan) need only be licensed in the state where they are physically located, a policy that permits interstate medical practice. Senators Ted Cruz (R-TX) and Marsha Blackburn (R-TN) recently introduced the Equal Access to Care Act, which would temporarily apply this model to the practice of telemedicine nationally.

A final strategy — and the most sweeping of the proposals that have been seriously discussed — would be to implement a federal license to practice medicine. In 2012, Senator Tom Udall (D-NM) proposed (but didn't formally introduce) a bill creating a tandem licensure process. Under this model, clinicians interested in practicing across state lines would apply for a national license in addition to their state license.[4]

Although it's conceptually appealing to consider moving to a scheme involving a single federal license, such a policy may be impractical, since it overlooks more than a century of experience with state-based licensure systems. Boards also play an important role in disciplinary activity and take action in the cases of thousands of physicians each year.[5] Switching to a federal licensure system could undermine state-based disciplinary authority. Moreover, both physicians who provide predominantly in-person care and state medical boards have a vested interest in maintaining state-based licensure systems to limit competition from out-of-state providers, and they would probably try to derail such reform. Licensing health care on the basis of a physician's location is a clever solution, but it also challenges long-standing systems



Current Interstate Medical Licensure Compact Member States.

for regulating medical practice. Amending location-based policies could also present challenges for boards' disciplinary activities and reach. Reforms that respect states' historical control over licensure are therefore probably the best path forward.

At the same time, hoping that states will act on their own to expand options for out-of-state licensing appears to be an ineffective strategy. The low rate of use of the interstate compact among physicians in participating states highlights the ways in which administrative and financial hurdles can continue to impede interstate telemedicine. It's unlikely that states will enact permanent reciprocity laws on their own, given internal resistance.

Perhaps the most promising strategy is one that uses federal authority to encourage reciprocity. Building on prior legislation regulating physicians in the VA system and TriCare, Congress could mandate licensure reciprocity in the context of Medicare, another federal program. Physicians could be permitted to provide telemedicine services to Medicare beneficiaries in any state, as long as they possess a valid medical license. Such a policy would most likely accelerate the adoption of state legislation regarding reciprocity, thereby affecting patients with other forms of insurance as well.

The Covid-19 pandemic has raised questions about the utility of the existing licensure framework, and it's become increasingly clear that a system that relies on telemedicine deserves a new regime. Potential models abound, and the degree of change involved ranges from incremental to categorical. We believe that building off the existing state licensure system but encouraging reciprocity among states presents the most practical path forward.

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The Inequity of Isolation

Simone Vais, M.D.

"Cradle to grave" — that is the promise and privilege of family medicine: the opportunity to care for individuals and families at every stage of life. For a family medicine intern, this privilege has a slightly different flavor. It's the privilege of witnessing the events that bring people into the hospital throughout their lifespan — birth and death and the illness in between them. And as an intern in the midst of a pandemic, I've learned that this privilege can go hand in hand with pain. These days, it is the pain of witnessing the profound loneliness created by closing our hospital doors to all but the ill and the people charged with healing them — a loneliness that feels entirely distinctive at each age and stage of life.

In the past few months, as I've learned to catch and care for babies, select elegant antibiotics, and titrate methadone, I've also learned that bearing witness to my patients' isolation and its repercussions is now part of my job, too. The visitation restrictions enacted to contain the spread of Covid-19 have vastly increased hospital isolation. More disturbing is that the absence of loved ones at the bedside means that as our patients endure illness, there is no one beside them to ask questions, advocate for further testing, notice subtle changes in appetite or behavior, or insist that the problem that brought them to the hospital be solved before they're sent home. So these roles — noticing, advocating, accompanying — are my job now, too. I must fill the gaps left by the absence of loved ones. And as in all aspects of my job, I am still learning.

First, I am learning to see. The hospital landscape has shifted, and I'm learning to adjust my lens to notice the effects of that shift.

To the new mom in postpartum room 6: I see your outrage when I tell you that your partner must leave the hospital now. With some trepidation I explain that while your baby will remain admitted for further phototherapy, you are ready for discharge. Once you are discharged, you will become a visitor, which makes your partner visitor number 2. Right now our policy is one visitor per patient, to limit the spread of the virus. You realize that this rule means losing the support of the person who has been by your side, holding your hand, through 20 hours of labor and being left, exhausted and delirious, alone with your newborn. You are outraged. Thank you for voicing your outrage and for showing me that I need to fight for you and for a different solution, which turns out to be relocation to the pediatrics ward, where we allow two visitors at a time. You teach me that that is my job now, too: to fight for you today and to rethink our policy tomorrow.

To the young man in the hallway considering your choices for how your father will live out his final days after a long battle with metastatic cancer: I see that you have no choice at all. I see your yearning to bring him back home with you. I hear how trapped you feel because you can't take time off work to care for him and don't have the resources to hire help. You understand that institutional hospice is your only choice, but that the hospices in our region have zero-visitor policies right now. You ask me, "So I'm being forced to ship him off to die alone?"

I see your pain, the inequity of this reality. We make a plan: