The Rise of Telemedicine

The COVID-19 pandemic has turned virtual health from a niche service into a mainstay of modern medicine. But it's not working for everyone.

October 19, 2020 By Caroline Tien

When Canada went into lockdown on March 16, Nova Scotia resident Robin McGee received a familiar diagnosis: her Stage IV colorectal cancer had progressed. The 59-year-old registered clinical psychologist had battled the deadly disease twice before, in 2010 and in 2017, but never within the confines of a health care system thrown into chaos by the emergence of a novel threat to human health and well-being. "I've been told that I would benefit from being examined," she says, "but I haven't been examined because I haven't been able to access a physician to examine me at all."

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In the months since March 11, the day the World Health Organization officially declared COVID-19

a global pandemic, the medical landscape has been transformed, not only for people with cancer, like McGee, but for everyone, healthy or sick. Hospitals have delayed or even canceled elective procedures, and millions of people have skipped preventive screenings for heart disease, diabetes and cancer as well as HIV testing and viral load monitoring, citing concerns about coronavirus transmission.

Telemedicine has rushed in to fill the vacuum. The term refers to the delivery of clinical services—think doctor's appointments—from a distance; it is often used interchangeably with "telehealth," which refers to a broader array of interactions between patients and health care providers. Practically overnight, it seemed, video and phone calls became a primary mode of communication between doctors and nurses and the people they treat. In an era in which the average person spends more than six hours a day online, we now have another reason to boot up our devices and stare at a screen: medical care.

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The rise has been meteoric. On March 17, Medicare significantly expanded its telehealth insurance coverage, allowing any beneficiary anywhere to receive medical care via digital means. Before then, the average weekly number of people taking advantage of telehealth through Medicare was 13,000. By the first week of April—at the height of the COVID-19 crisis in the Northeast—that number was 1.7 million.

Many private insurers have since followed in Medicare's footsteps, swelling the ranks of telehealth users by many more millions. The total number of tele-patients has declined since

the early days of lockdown but is still substantially higher than ever before.

Hospital data reveal some of the effects on the health care system. Pre-pandemic, the University of Wisconsin Carbone Cancer Center recorded close to zero telehealth visits a year. Now, anywhere from 20% to 40% of hematology, oncology and palliative care appointments alone are conducted remotely.

“My own personal mix is probably closer to 50%,” says Amye Tevaarwerk, MD, director of the center’s survivorship program an associate professor of breast oncology at the university, “but that’s partly because I’m a breast cancer oncologist, and many of our patients can be monitored for symptoms much more readily using the phone or video than other disease types.”

In San Francisco, office visits to the Ward 86 HIV clinic at Zuckerberg San Francisco General Hospital, San Francisco AIDS Foundation’s Magnet sexual health services clinic and City Clinic, the city’s main sexually transmitted infection (STI) clinic, declined dramatically during lockdown. But telehealth visits rose. While lab tests require specimens—some of which can be collected at home or using a curbside service—telemedicine often allows clinicians to extend prescriptions for HIV pre-exposure prophylaxis (PrEP) with fewer tests and can prescribe STI treatment based on a description of symptoms, says City Clinic director Susan Philip, MD, MPH.

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In many ways, telehealth has had a positive, even transformative, effect on medicine. “It has resolved the number one issue that patients come to us with outside of just general medical

debt issues—transportation," says Caitlin Donovan, the senior director of the National Patient Advocate Foundation, which works to prioritize the patient voice in health system delivery reform. It means people who do not require physical exams no longer have to take time out of their day or money from their bank accounts to travel to a medical practice, for example. Telehealth, predicted a recent Centers for Disease Control and Prevention commentary, has the potential to "reshape health care, especially for rural patients and patients with multiple comorbidities."

But even as telehealth has knocked down some barriers, it has run headlong into others—and erected new ones.

A Mixed Bag

For patients like McGee, telemedicine is both a blessing and, while not a curse per se, definitely a hindrance. On the one hand, says McGee, it has saved her travel time and gas money, spared her many humid hours of masking and allowed her spouse to be present at meetings with her oncologist.

On the other hand, it means that, as she said during a recent Cancer Health at Home event, "no doctor has laid a finger on me" in months—a far-from-ideal state of affairs for someone facing a life-threatening illness and the many side effects of its treatment.

For doctors like Tevaarwerk, telemedicine, at least in its current "immature" incarnation, is a similarly mixed bag: convenient and family-friendly but also woefully inadequate in certain urgent or emergent situations. While she and her colleagues have devised ways to work around the limitations imposed by the digital format—having patients record their own weight; take their vital signs such as pulse, temperature and blood pressure; and, in some cases, even measure their own blood oxygen saturation levels with a pulse oximeter—some kinks have yet to be ironed out.

The biggest ones, according to Tevaarwerk, are the issues of inclusivity and accessibility with regard to telemedicine. People who do not own and cannot borrow devices such as smartphones, tablets and computers or lack broadband internet may not be able to avail themselves of virtual medical services. This disadvantages people whose income, living circumstances or disabilities, such as blindness or deafness, render such access problematic.

"While telemedicine improves access and reduces barriers to health care access for many," concluded one recent study, "several barriers and challenges remain for persons with disabilities, and novel challenges have been exposed, many of which may persist long term."

Age is a complicating factor too, as many older people are unfamiliar with or uncomfortable using videoconferencing technology. "We have data suggesting that it's absolutely an equity issue," Tevaarwerk says, "meaning that for whatever reason, as patients get older, they're much less likely to participate in a video visit."

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Digital Divides: Age, Income, Race and Language

Cindi Gatton, founder of the Pathfinder Patient Advocacy Group, which helps patients navigate the fragmented health care system, provided a specific—and heartbreaking—example of how the accelerated digitization of medicine necessitated by the pandemic is restricting access to care. On September 28, Gatton met with an elderly female client whose lack of digital literacy has proved an obstacle to her ability to care for her seriously ill husband. While she had managed to schedule a doctor's appointment for him, Gatton says the woman struggled when the doctor's office sent her preliminary documents to complete and return electronically.

"These situations reflect the digital divide, one that crosses all demographic groups," Gatton says. "For individuals who don't use or have access to email or don't have a smartphone or access to a computer, health care is definitely moving in a direction that has the potential to leave these folks with significant challenges to access to and coordination of care."

At the University of California San Francisco, Sarah Nouri, MD, MPH, and colleagues came to a similar conclusion. In a recent article in The New England Journal of Medicine Catalyst, they argue that "without proactive efforts to ensure equity, the current wide-scale implementation of telemedicine may increase disparities in health care access for vulnerable populations with limited digital literacy or access, such as rural residents, racial/ethnic minorities, older adults and

those with low income, limited health literacy or limited English proficiency.” One recent study, for example, found that Black and Latino people with cancer were less likely to use telehealth services than white people.

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So what steps can be taken to remedy this situation? The authors recommend that medical offices train staff to teach patients digital skills and help them overcome material, technological and linguistic obstacles to care by providing access to translators and referring them to companies that offer free or low-cost broadband service. But these are mere stopgap measures. In order to ensure that telehealth is sufficiently equitable, Nouri and colleagues warn, not only will insurance companies need to offer more comprehensive coverage but governments will also need to permanently subsidize broadband so that it is free or low cost, especially for people residing in poor and rural areas.

Insurance Pitfalls

Some patients have encountered problems when pursuing reimbursement for telehealth visits from their insurance companies. One common sticking point, says Donovan, is equal compensation for phone and video calls.

Some insurance companies won’t compensate their clients for telemedicine conducted over the phone versus over video. She says this is the reason that some doctors might say, “You have to come in if you want to talk about this” if you call them with a medical issue. But since video calls

require better broadband than phone calls to be successful or even marginally functional—think of how many times your iPhone's FaceTime feature has glitched on you—this bias toward video again raises issues of access.

If your household Wi-Fi isn't robust, "you might in normal times go sit in a coffee shop or something," Donovan says. "But that's not really an option for telehealth because of privacy issues. I've talked to people who have still gone to, say, the local library or even that coffee shop and stayed in the parking lot, where they could still get a Wi-Fi signal, but we really shouldn't have to do that."

Medicare, Medicaid and most private employer-sponsored health insurance plans typically cover telemedicine, although co-pay policies vary. But if you have a short-term health care plan, Donovan says it might pay to be wary. "When you look at short-term health plans, which are not Affordable Care Act–compliant plans, some of those plans cover telehealth; some of them don't," explains Donovan, "and those are places where patients could be at risk for some out-of-pocket expenses that they might not be aware of."

The bottom line is that from a financial standpoint, it's better to be safe than sorry. Prior to a telehealth visit, Gatton recommends that patients call their insurance company's customer service department to check whether and how telemedicine is covered by their current plan.

Getting the Most From a Telemedicine Visit

For all its differences, telemedicine is still medicine, meaning that many of the same tips for scheduling, preparing for and participating in an office visit apply. According to the National Institute on Aging, for example, it can be helpful to bring along a family member. For a telemedicine visit, it may be easier to arrange that.

As with an office visit, says Donovan, "Think ahead of time what questions you want to ask your doctor" and take notes. Regarding video calls specifically, she adds, patients should also make sure that background noise is kept to a minimum, that they're comfortable with how they appear onscreen and that they are familiar with the relevant software. Some medical practices, says Gatton, even offer informal crash courses on downloading and navigating popular videoconferencing applications, such as Skype and Google Hangouts.

"We are prescreening patients to see if they have the technical setup to allow for a successful telemedicine visit, and our staff have been great about helping patients learn how to do this," says Hal Burstein, MD, PhD, a medical oncologist at the Dana-Farber Cancer Institute. "For a few patients, that has opened up the world of Zoom or other videocalling [platforms] to them, and they are using that for other purposes now, like chatting with grandchildren."

Between telehealth visits and office visits, which do patients tend to prefer? The short answer is that it depends on their objective. Many patients, McGee included, seem partial to telemedicine when it comes to routine care for reasons that include convenience, cost effectiveness and ease of verbal and nonverbal communication.

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In many cases, of course, there's no substitute for face-to-face interaction. "There are some situations that telehealth simply can't replace," says Gatton, such as when a hands-on exam "is really necessary and needed."

"I know as a patient myself," she says, "you know, my doctor said, 'Well, hold your hand up, and let me see it in the camera,' and it's like, 'Hmm, this doesn't feel quite the same as it would if we were sitting in the exam room together.'"

Burstein is frank that telemedicine's lack of physical contact is one of its major weaknesses. "We cannot offer the literal 'human touch' over a call," he says. "I know that both patients and doctors miss the connection that makes the doctor/patient relationship so rewarding."

Data suggest, however, that patients do not miss it enough to reject telemedicine entirely. Indeed, telehealth visit claims have increased 8,000-fold, the share price of companies that provide telehealth platforms such as Teladoc and Livongo Health has skyrocketed and nearly two thirds of respondents to a recent Sykes Enterprises poll said they are more comfortable with the idea of virtual health care now than they were before the pandemic hit.

Donovan believes telemedicine is here to stay, even when the pandemic fades. As a patient advocate, she is familiar with its shortcomings, but as a working mother, she understands its logistical and financial appeal. Since an office visit comes with hidden fees for childcare and transportation, not to mention time off work, she says telehealth is often a cheaper option. "I do

know the frustration of carting myself or my kids all the way into an appointment only to be asked a few questions, weighed and measured and sent on my way," she says. "The convenience of doing that over telehealth, especially if it comes at a lower price point, is certainly enticing for a lot of people."

Anxious about an upcoming telehealth visit? See "5 Tips for a Successful Telemedicine Visit."
