



DELIVERING HEALTHCARE FROM A DISTANCE

The Rapid Rise of Remote Monitoring and Telemedicine During COVID-19

8/10

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WITH THE NEED FOR SOCIAL DISTANCING, HEALTHCARE PROVIDERS HAVE MOVED RAPIDLY TO DEPLOY 21ST-CENTURY TECHNOLOGIES IN ORDER TO MORE EFFECTIVELY DELIVER TELEMEDICINE AND REMOTE MONITORING.

For years, the prospect of telemedicine and remote patient monitoring hovered around the edges of the healthcare delivery system. Early iterations were not widely utilized or were confined to specific, limited use cases. Hampered by technological limitations and patient perception, as well as by constraints on practitioner compensation and patient out-of-pocket costs, the experience in the doctor's office remained the best option when compared to an online visit.

With the advent of COVID-19, telemedicine and remote monitoring have become far more widely adopted. Arguably, the future is already here. With the need for social distancing, healthcare providers have moved rapidly to deploy 21st-century technologies in order to more effectively deliver telemedicine and remote monitoring.

Research conducted by Harvard University and Phreesia show a 60% decrease in ambulatory care visits among 50,000 providers. Meanwhile, nearly half (48%) of U.S. physicians are treating patients through telemedicine, up from 18% in 2018, according to a survey by physician search firm [Merritt Hawkins](#).

Anecdotally, clinics nationwide report nearly-empty parking lots, as more patients are diverted to telemedicine to protect themselves and safeguard the health of caregivers.

While these trends reflect an immediate response to the COVID-19 pandemic, there are strong indications that telemedicine and remote monitoring will remain even after the present situation has subsided. In this emerging paradigm, the effective use of data will be a key driver of success among physicians and healthcare providers.

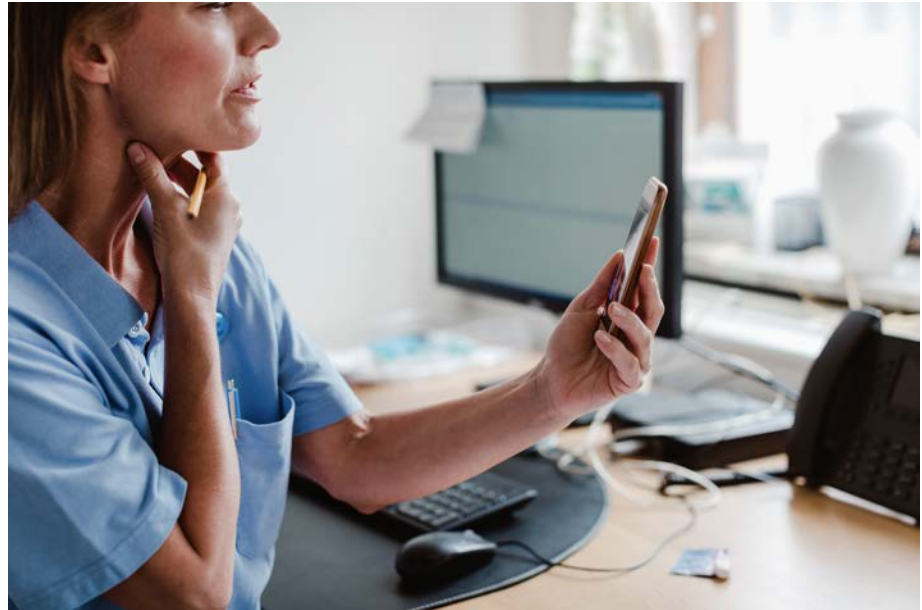
Remote Monitoring

We already see signs that the temporary changes implemented during the COVID-19 crisis could form the basis for a longer-term shift to more applications of remote monitoring. Today's emergency measures may well lay the groundwork for tomorrow's routine practices.

With an eye toward that future, researchers are developing new devices to support remote monitoring. [Stanford Health](#), for example, is conducting research on the use of wearable-device data to monitor the conditions of patients with the early onset of COVID-19, including monitoring vital metrics like temperature and heart rate. Others are looking to track blood

10/10

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oxygen saturation, another key indicator. Some healthcare device makers already are working to win FDA approval for such equipment.

All of these remote monitoring practices could have a place in supporting patient health in a post-COVID-19 world. Patients with asthma, diabetes, and a host of other chronic conditions could potentially benefit from ongoing, remote oversight—and some healthcare organizations already use remote monitoring for these conditions.

While gains are made in the delivery of care, there's still work to do in terms of reimbursements. The medical community must codify and solidify payers' willingness to compensate caregivers for this work, at rates comparable to an in-office visit. There will be changes on the equipment side too, with more patients likely to need in-home access to a wider range of diagnostic tools.

9/10

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Telemedicine

In the past, telemedicine has generally been limited to a narrow range of health services. Those parameters have widened, with practitioners gaining a freer hand to diagnose a broader spectrum of symptoms. Health-related questions that previously required the patient to sit in a crowded waiting room, exposed to possible contagions, can now be handled remotely.

This elevated sense of convenience and safety likely will drive expanded use cases in the future. Millennials in particular are expected to be drawn to this model. With their on-demand consumer expectations and native comfort with technology-driven communications, they also are more likely to make the shift to remote monitoring and teleradiology.

Telemedicine is also seeing a shift in the reimbursement landscape. The Centers for Medicare & Medicaid Services (CMS) has lately broadened access to telehealth to include compensation to providers for a wider range of services for Medicare beneficiaries.

While this is considered a temporary change as part of the country's emergency response plan, CMS policy is a bellwether. The government's willingness to cover such practices augers well for the future of telemedicine, and for the likelihood of creating a more permanent place for it in the healthcare system going forward, with a possible inclusion of providers using [HIPAA-compliant technology](#) for remote clinical visits.

About Cloudera

At Cloudera, we believe that data can make what is impossible today, possible tomorrow. We empower people to transform complex data into clear and actionable insights. Cloudera delivers an enterprise data cloud for any data, anywhere, from the Edge to AI. Powered by the relentless innovation of the open source community, Cloudera advances digital transformation for the world's largest enterprises.

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Looking Forward

For remote monitoring and telemedicine to take hold, some things will have to change.

Care delivered via screen will be qualitatively different from services rendered in a clinical setting, which will mean additional training for caregivers. New protocols will need to emerge, along with new ways of interacting that ensure the physician has a complete understanding of the patient's medical condition.

Caregivers will also need to gain a more complete understanding of the place of data in all of this—because the rise of telemedicine will in many ways be a data-driven evolution.

A practitioner treating from a distance will need ready access to the full suite of medical records. Treatment plans and key observations will need to be updated in real-time, with a more open flow of information among practitioners, in order to ensure a 360-degree view of the patient.

Data from diverse sources will need to be aggregated, formatted correctly, and deployed in a way that is timely and usable for caregivers. Doctors will need to know where the data lives, how to get to it, and what it means. They won't need to become data scientists, but they will need a higher degree of data literacy.

The medical research community already is steeped in data and fluent in its uses. We may see a new set of best practices emerge based on the experiences of this existing ecosystem. As remote monitoring becomes the norm, practitioners can begin to look to their peers in the research community to see how to leverage data for maximum impact.

Data in support of remote monitoring is designed to help mitigate a resurgence of COVID-19 and will serve in developing best practices for telemedicine going forward.

Cloudera: In Support of Healthcare

Cloudera is leveraging its unique data management expertise in support of the global health community. Working with [Ending Pandemics](#) and other nonprofit partners of the World Health Organization and the Centers for Disease Control and Prevention, Cloudera is identifying ways to contribute data expertise where it can make the most difference.

Contact [Cloudera](#) for help in making the transition to more effective [remote monitoring and telemedicine](#). Many others face the same challenges, and a collaborative approach today can drive the common solutions of tomorrow.

Learn more about [Cloudera](#) in Healthcare & Life Sciences.