

Extend the Value of Telehealth with Remote Monitoring Solutions

Background

More than 147 million Americans are living with chronic conditions such as diabetes and hypertension¹. And according to a 2017 RAND Corporation Study, these chronic conditions account for 90 percent of the US healthcare spend².

For people with chronic conditions, the current acute care model doesn't work. Most spend 99.9% of their time outside of a traditional healthcare setting, leaving them with little support to manage their disease or risk factors.

Meanwhile, in the midst of a global pandemic, it's especially important to keep people with chronic conditions – who are at greater risk of serious illness from COVID-19 – healthy, at home, and out of harm's way. To address this new reality, telehealth has emerged as a key element of care, and one that will continue to grow as patients and providers experience its value.

Yet telehealth alone will not provide the scale, efficacy, and cost-effectiveness we need to keep Americans with chronic conditions safe and healthy through the COVID-19 pandemic and beyond. Remote monitoring solutions that allow for the secure tracking and sharing of patient biometrics have the potential to enhance access to care for vulnerable populations, while increasing the value of virtual visits for both patients and providers.

What is Remote Monitoring?

Remote monitoring, also known as remote patient monitoring or remote physiologic monitoring, uses connected digital technologies and mobile medical devices to collect clinical grade, patient-generated health data from individuals from where they are and electronically transmit that information securely to a care team in a different location for assessment and intervention. This type of service allows for ongoing monitoring and management of chronic and acute conditions.

These solutions are designed to improve care by facilitating communication between caregivers and patients. Unlike telehealth, which is typically used to provide a single episode of care, remote monitoring solutions are used for an extended period of time and remotely track patient biometrics – such as blood glucose, blood pressure, pulse, oxygen saturation, temperature, body weight, etc.– and report that data to a central location where it can be monitored for changes that require intervention.



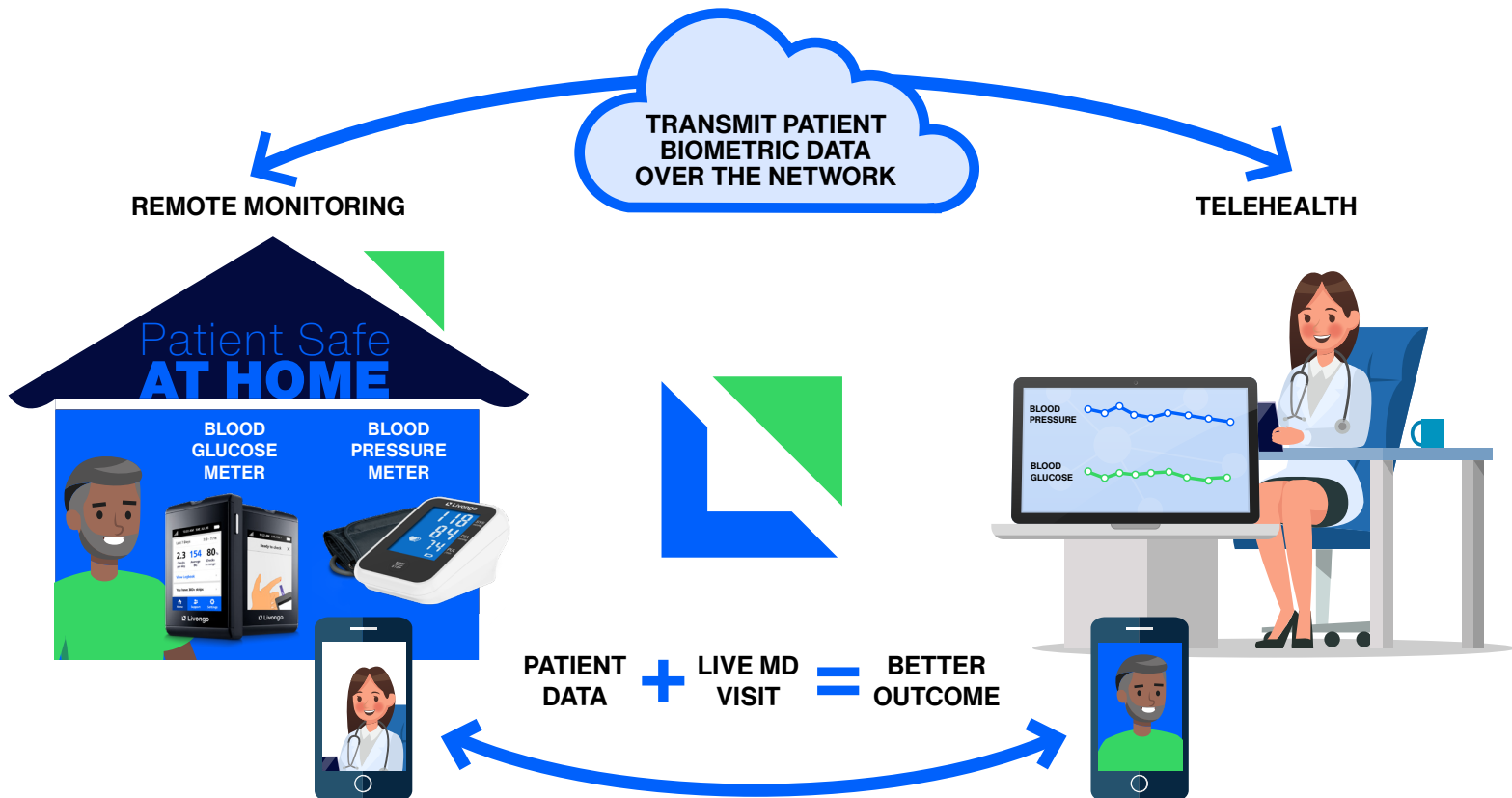
**in 2020, virtual visits
will soar to more than**

1 Billion³

At-A-Glance Comparison of Remote Monitoring and Telehealth

| Remote Monitoring | Telehealth |
|--|--|
| Allows for higher-value virtual visits by giving healthcare providers easy access to a patient's real-time biometric data (blood glucose, blood pressure, etc.) | Serves as an enhanced social visit between patient and provider, often lacking real-time clinical data |
| Triggers timely, proactive outreach to patients and their care team based on readings picked up by a device, such as an out-of-range blood glucose reading | Burden is on the patient to schedule the appointment and access or install any necessary technologies |
| Provides patients with ongoing support for chronic conditions through digital and live health coaching, helping reduce downstream effects on health and costs | Ideal for episodic or acute care scenarios when a live appointment is not possible or advisable |
| Operates at low frequencies such as 2G cellular connectivity, which is available even in rural areas | Requires broadband internet access for high-quality interactions |

Remote monitoring allows our healthcare system to meet people where they are by enabling frictionless, frequent collection of important health data; empowering people to self-manage at home; and helping physicians make better-informed care decisions in telehealth or traditional in-person visits.



Remote Monitoring Value & Cost Savings

Remote monitoring can be used to manage chronic conditions including diabetes, prediabetes, hypertension, asthma and behavioral health. In the Interim Final Rule from CMS issued in late March 2020, CMS clarified that remote monitoring can be used for both treatment and management of chronic conditions.

Solutions combining Remote Monitoring with real-time telehealth management have been proven to reduce use and spending for office-based services. A recent study in the *Journal of Medical Economics*⁴ showed that over a 12-month period, participants in a Remote Patient Monitoring program demonstrated a statistically significant 25% reduction in office-based visits (which translated in a reduction of an average of 2.5 visits/year) compared to people with diabetes who did not participate in the Remote Monitoring program.

The study also showed that this Remote Monitoring solution reduced medical spending by 21.9 percent, which included a 10.7 percent reduction in diabetes-related spending and 24.6 percent reduction in office-based services.⁴

Remote Monitoring Shows Usage and Impact Across Geographies

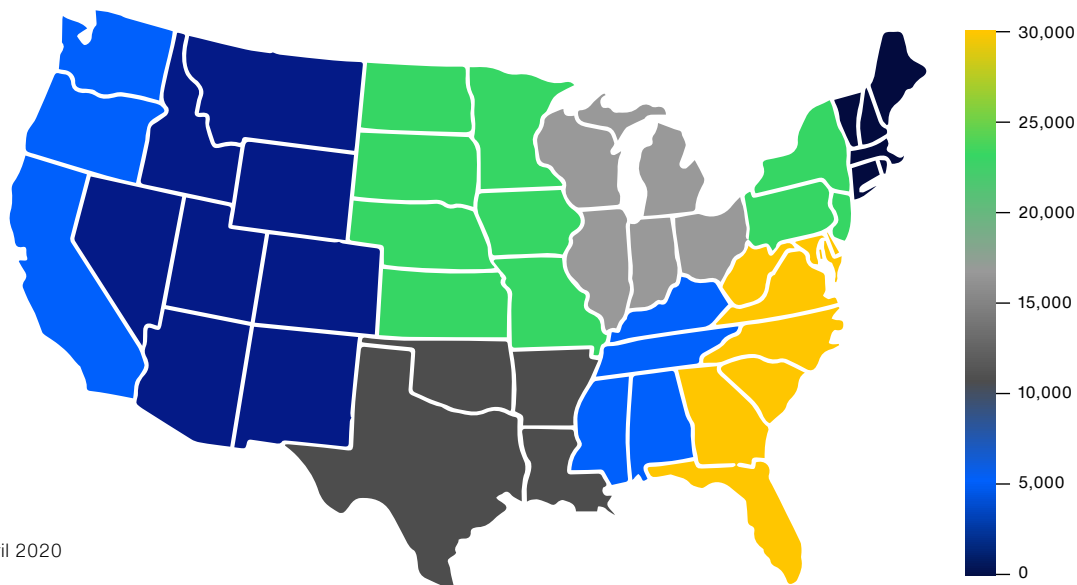
Remote monitoring helps protect vulnerable populations while providing the personalized, accessible support people need to effectively manage their chronic conditions from the relative safety of home.

This approach also addresses access to care issues across our country. For example, according to the CDC, Native Americans (American Indians and Alaska Natives) are at greater risk of having diabetes than any other U.S. racial group. Meanwhile, provider shortages – especially among specialists who care for Americans living with chronic conditions, are painfully evident in rural America and on tribal lands. Physicians speak of patients who have to wait as much as six months to see an endocrinologist in underserved areas of the country.

Remote monitoring, which operates at low frequencies such as 2G cellular connectivity, can be the key to extending digital health technologies to a greater number of Americans. Most reservations and rural communities have access to 2G connectivity, making it possible to deploy remote monitoring solutions that allow for real-time interventions and more continuous care for people living with chronic conditions.

Data analysis shows that remote monitoring has been widely adopted by people using it to manage their chronic conditions, like diabetes (see Figure 1). The range in usage across different geographies is based on the prevalence of chronic conditions in these areas, among other factors.

FIGURE 1
Distribution of Livongo Diabetes Members by the Nine U.S. Census Divisions



This suggests that remote monitoring, when accessible to an individual, is a proven approach to improving the health of Americans with chronic conditions across diverse geographies and populations — even in places with lower levels of access to care.

A Look Ahead

Remote monitoring services are of critical importance today as we weather a global pandemic. Yet they also are a key part of keeping people with chronic conditions — those who already have greater healthcare needs than the general population — on the right track even after the current health crisis has passed.

With more people having to postpone condition-related visits and with decreased access to treatment for behavioral health and other health issues, the people who are most reliant on the healthcare system are less able to get the care they need.

Having access to reliable, efficient, and easy-to-use remote monitoring solutions ensures that people living with chronic conditions can stay on top of their day-to-day health, reducing the down-stream complications and costs associated with poorly managed conditions.

For more information, contact Leslie Krigstein, VP, Government Affairs at leslie.krigstein@livongo.com

1. <https://www.cms.gov/files/document/covid-final-ifc.pdf>

2. C. Buttorff, T. Ruder, and M. Bauman, "Multiple Chronic Conditions in the United States." Santa Monica, CA: RAND Corporation, 2017.

3. <https://go.forrester.com/press-newsroom/us-virtual-care-visits-to-soar-to-more-than-1-billion/>

4. Christopher M. Whaley, Jennifer B. Bollyky, Wei Lu, Stefanie Painter, Jennifer Schneider, Zhenxiang Zhao, Xuanyao He, Jennal Johnson & Eric S. Meadows. Reduced medical spending associated with increased use of a remote diabetes management program and lower mean blood glucose values, Journal of Medical Economics, 22:9, 869-877. 2019. <https://www.ncbi.nlm.nih.gov/pubmed/31012392>