



How telehealth can improve chronic disease management

COVID-19 provided a much-needed catalyst for widespread integration of telemedicine. Now it's time to use it against our biggest long-term health challenges.

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Telemedicine is not a new idea; in fact, its roots can be traced back to the 1920s, when radio transmissions were used to send medical advice to ships at sea. Recent years have brought technological advances that allow us to weave telehealth into the fabric of everyday life. Yet, despite those advances, lack of reimbursement models and overall lack of comfort with telemedicine have hindered its adoption.

COVID-19 changed everything, though. Social distancing has become woven into our everyday lives and accelerated the use of video for everything from work meetings to gym classes and happy hours. In the healthcare space, the trend is no different. Hospitals and health systems have found new ways to use video to connect patients with families when they cannot visit, conduct virtual health screenings, treat acute illness, and more. Telehealth has become more widely accepted by both providers and patients. In fact, a [survey](#) by SYKES in March 2020 found that 96% of people who have tried a telehealth appointment would schedule or already have scheduled another. This acceptance is important, because telemedicine holds tremendous potential for a variety of use cases. It can help tackle some of the most universal and pervasive challenges to health and healthcare, including chronic disease management.

The State of Chronic Diseases

Chronic diseases such as heart disease, cancer, chronic obstructive pulmonary disease (COPD), stroke, Alzheimer's, diabetes, and kidney disease account for roughly three-quarters of all physician visits, as well as 80% of hospital admissions and 81% of readmissions in the U.S. Nine in 10 prescriptions are related to the treatment or management of chronic illnesses.¹

Estimates suggest that about 45% of Americans suffer from at least one chronic condition, and unfortunately where there is one, others commonly follow. One-third of adults worldwide have multiple chronic conditions, according to the World Economic Forum. At least 25% of Americans have multiple chronic conditions², and a 2017 Commonwealth Fund report estimated that 36% of American adults over the age of 65 suffer from three or more chronic illnesses.

People are generally living longer, too, which further expounds the challenge and can bring additional complications. A growing percentage of the worldwide population is over 64. The National Institutes of Health [found](#) 8.5% of the global population was over 64 in 2016, with that figure expected to jump to nearly 17% by 2050 (1.6 billion people).

Meanwhile, healthcare costs continue to skyrocket as hospitals and health systems face pressure to reduce costs. Fifty years ago, healthcare inflation in the United States was about 5%. Today it's closer to 20%.The American healthcare system is charting an unsustainable course.

But the United States isn't an anomaly. Globally, healthcare costs increased 7.6% in 2019 – more than double the rate of inflation, according to the Willis Towers Watson 2019 Global Medical Trends Survey Report, which also projected rapid increases in the Middle East and Africa. Even in Asia Pacific and Europe, where the year-over-year cost increases aren't as dramatic, annual growth is around 7.6% and 5%, respectively.

Nothing shy of true innovation and structural evolution will dismantle the inequities in care access and costs related to these chronic illnesses that threaten growing populations.



Delivering Healthcare Differently to Save Lives (and Money)

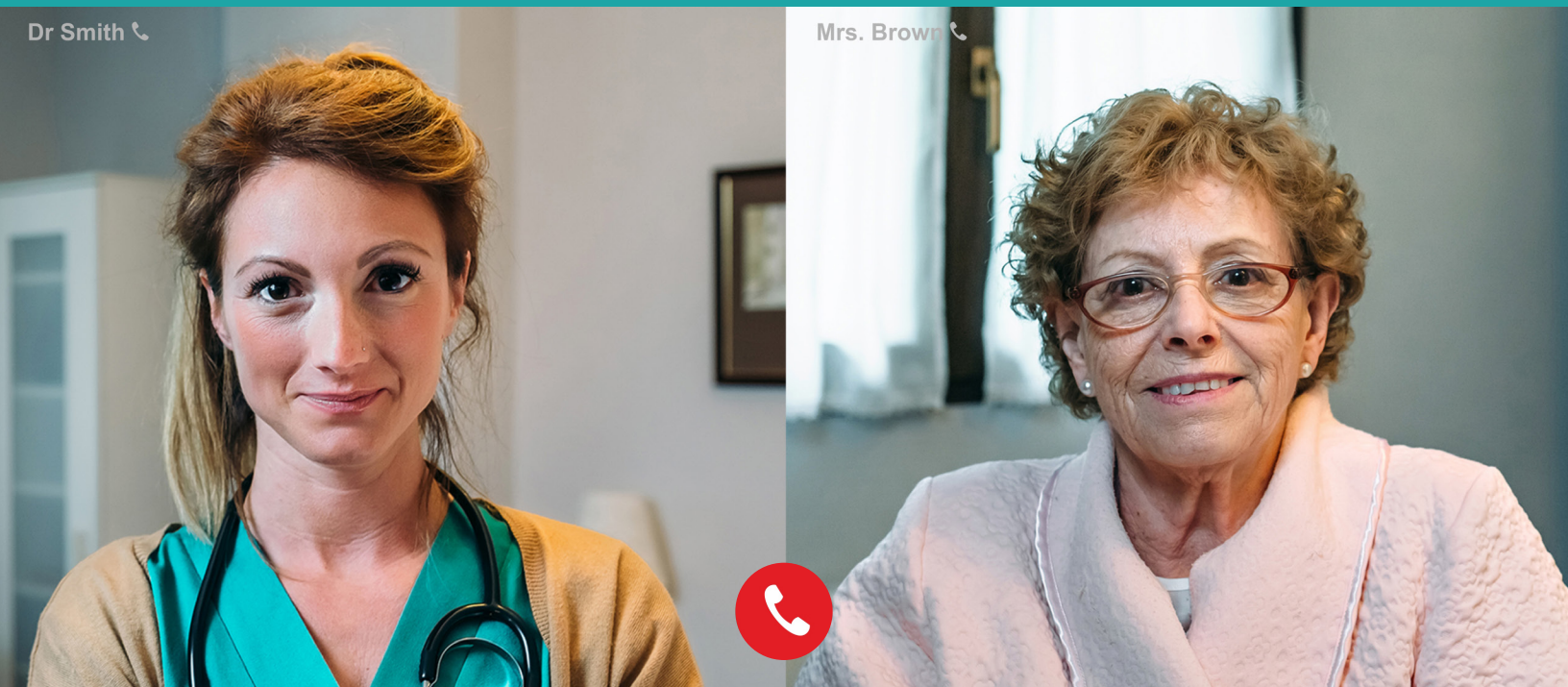
Today's healthcare service is heavily weighted toward acute care. This traditional model treats patients on a "revolving door" basis. The patient is seen in an office visit, then follow-up appointments are scheduled at arbitrary time intervals. Between those scheduled visits, the patient commonly ends up in emergency rooms, hospitals or urgent care centers due to acute flare-ups. The arrangement is fundamentally grounded in inefficiency, both economically and materially.

Telehealth is proven to reduce these routine cycles of urgent and acute care visits. A **study** in *Telemedicine Journal and e-Health* concluded, "The preponderance of evidence from studies using rigorous research methods points to beneficial results from telemonitoring in its various manifestations, albeit with a few exceptions. Generally, the benefits include reductions in use of service: hospital admissions/re-admissions, length of hospital stay, and emergency department visits typically declined. It is important that in addition to the reduction of service use, there were often reductions in mortality."

In another example, according to HiMSS, the Department of Veterans Affairs showed a 20% reduction in readmissions with the use of telehealth services to improve home care for patients with multiple chronic diseases.

Telehealth is increasingly cutting the costs of chronic disease management for payers and providers. With advances in cloud-based communications that allow for easier collaboration and access to real-time information, along with easy-to-use remote monitoring equipment, the future of chronic disease management looks bright.

Many perceive telehealth as a convenient way to accomplish acute care – a "video call" appointment, so to speak. But the potential of telehealth reaches beyond diagnosing a rash or a post-surgical follow-up; it can be a powerful tool to enable quality, long-term care. Telemedicine can confront these chronic conditions that represent the majority of healthcare costs – simultaneously saving hospitals money and, more importantly, saving lives.



Reducing Readmissions Through Virtual Visits

Patients with chronic conditions account for four of every five hospital readmissions – one of the most prominent drivers of healthcare costs. Readmissions related to COPD alone amount to more than \$15 billion annually in the United State alone.³ In addition to direct healthcare costs, readmissions can also come with hefty regulatory fines. For example, in the U.S., where accountable care models have put a focus on reducing readmissions, the Centers for Medicare & Medicaid Services (CMS) fined more than 2,500 hospitals over \$564 million in 2017 for excessive readmission rates.⁴

Telemedicine can help reduce these costly readmissions because of its impact on continuity of care. One of the biggest challenges for patients with chronic disease is compliance with complicated and extensive behavior regimens. These treatment plans grow in complexity with additional conditions (a common occurrence, as discussed previously).

With the ability to remotely monitor patients, doctors and specialists can help manage those regimens, monitor appropriate medication usage, and encourage healthy changes to lifestyles. By keeping patients healthy between provider visits, organizations can avoid costly cycles of hospitalization and readmission.

Telehealth also provides the opportunity for triaging new symptoms after hospital discharge or specialist visits. These symptoms could result from medication change side effects, for example. Rather than forcing patients back into the office or emergency department, these concerns can be addressed in a direct and convenient manner for both patient and provider.

Making it easier for patients to follow up and conduct routine check-ins also increases the overall odds of managing chronic conditions more favorably. In addition, telehealth can reduce challenges patients face when treating these conditions, such as lack of convenient transportation or other socioeconomic factors that might limit a patient's ability to attend necessary follow-ups. When patients have multiple conditions, that in turn multiplies the number of providers they're expected to see, increasing the burdens of conducting these visits and follow-ups.

In short, the easier for chronic disease patients to interact with providers, the less likely they are to fall into a costly and vicious cycle of hospitalization and readmission. Understanding how telehealth can help break this cycle involves understanding these factors that propel patients into cycles of readmission. But the advantages of telehealth for chronic disease management also extend beyond breaking this vicious pattern of traditional care.

Telehealth can Address the Full Lifecycle of Care, from Treatment to Prevention

The totality of chronic disease management extends beyond simply treating the conditions but preventing them – and telehealth has a role to play here, as well.

Especially for older patients and those at high risk of developing certain chronic conditions, the continuity of care provided through telemedicine means a valuable accumulation of patient data into a unified and simplified record. A record that translates to collaborative and holistic care.

Take a patient with one chronic condition, who has a new symptom emerge. This symptom could be representative of the existing condition getting worse, or it could be the emergence of another, new chronic illness. The opportunity to promptly diagnose this symptom can curb the development of additional conditions.

Preventative approaches to health have already shown positive impact on healthcare savings. The more this approach is applied to the most costly chronic conditions, the greater that impact. And while telehealth has long been a promise of future realities, the technology to realize these results is available today. The question becomes: How can I incorporate telehealth and what does an effective telehealth approach look like?

Protecting a Vulnerable Population – Especially in a Post-COVID World

The very nature of suffering from a chronic disease condition supposes a challenging lifestyle. The burden of getting to, waiting in and spending time at healthcare facilities can be taxing physically, emotionally and financially. For some severe patients, the sheer act of getting out of bed can be problematic.

Factor into this the increase of threats posed in many healthcare locations, such as germs and other illnesses. This consideration has taken on completely new meaning and severity in a world struggling to contain the COVID-19 coronavirus.

A primary factor attributed to susceptibility for COVID-19 is pre-existing conditions. For sufferers of chronic conditions, susceptibility is a critical reality that was bad enough prior to the new coronavirus threat. Consider a cancer patient, who may be taking on a range of chemotherapy and/or radiation treatments. The toll these treatments take on the body leave it weakened and vulnerable to infections and exposures far less threatening to other people and patients.

Simply keeping these chronic patients away from clinics and healthcare facilities, when at all possible, reduces their exposure to circumstances that provoke unexpected healthcare visits to hospitals, urgent care facilities or even personal physicians. The healthier we can make the environment for chronic patients and the more we reduce their exposure to serious risks, the more we reduce the costs of managing these chronic conditions.

A Note About Reimbursement and Public Health System Coverage

It's worth noting that a significant hindrance to telemedicine uptake in the U.S. has been provider concerns over reimbursement. In fact, results from a 2017 survey by KLAS and CHIME found reimbursement was the most frequently cited limitation to on-demand visits, scheduled visits and telespecialty consultations.⁵

Importantly, these concerns were, at least in part, addressed by the **Creating High-Quality Results and Outcomes Necessary to Improve Chronic Care Act of 2017**, in which Medicare was expanded to cover more telemedicine for chronically ill patients beginning in 2020.

In other parts of the world, telehealth options may have been previously excluded from government-provided healthcare. However, the COVID-19 pandemic has also forced governments to consider and include telemedicine on a larger scale in order to enable continuity of care, helping to remove one of the significant barriers to the proliferation of telehealth.



The Telehealth Platform of the Future – and Present

For telehealth to reach its full promise, it must be more than a “video appointment.” Video calling technology is available on just about any smartphone these days. But telehealth is more than simply being able to see the person on the other end of the call. A telehealth platform that makes an impact in patient care is one that is easy to use, integrates with provider workflows, can scale based on demand, and keeps data secure.

While we tend to think of how telemedicine would impact our existing office infrastructure, it's critical to consider the ease of access for patients. It must be simple, easy-to-use and compatible with technologies and devices they already have at home (e.g. phones, tablets or computers). Telehealth requires patient participation to be effective. Without easy adoption and buy-in on the patient side, the technology will be rejected and unused. By breaking down barriers to that participation – by providing patients with options that are simple and fit into their lifestyles – you've won half the battle.

But the other half of the battle is that ease of use must apply to providers, as well. Busy clinicians don't have the time to devote to learning completely new technologies and developing new workflows. The ideal telehealth platform integrates into current practice management systems,

scheduling flows and electronic health records (EHRs). It works well with existing conferencing systems like Cisco and Poly, in addition to purpose-built telehealth carts. It has native interoperability with widely-used software for PC and mobile devices including Microsoft Teams, Skype for Business and Google Meet. It eliminates the need for costly new hardware by allowing clinicians to join virtual appointments from any device, whether that is an office or home computer, a mobile device or even a telehealth cart in an exam room.

Beyond interoperability, the ideal solution must also scale to your operations. The ability to easily add or adjust capacity is critical when you need to grow or shift capabilities among locations.

And, of course, when you're talking about interconnected solutions, especially in a highly confidential and intimate setting like healthcare, security is a top priority. But you don't just want a network that stops with industry-standard encryption. You need to look for additional layers of protection and protocols, like PIN-protected or one-time-use virtual meeting rooms. You may also want a self-hosted solution that localizes data ownership, as opposed to multi-tenant cloud offerings. The aim of telemedicine is convenience without compromise. That means a telehealth platform worth investing in must accomplish this element of convenience for both provider and patient.

In Conclusion

For much of its early days, telehealth was considered an acute care application of technology. But with new resources available, telemedicine can transcend healthcare to tackle some of the chronic conditions that are costliest in terms of lives and in terms of financial burdens for hospitals, providers and patients.

In an [interview](#) with HCPLive, Roy Schoenberg, MD, MPH, chief executive officer at AmWell, stated, "Healthcare is going to rewrite itself from the ground up like every other industry because of this technology. And those who are willing to make the investment to learn that new language, are going to prevail and don't those that don't, just look at every other industry. They'll be challenged to continue to do their business."

Investment in telemedicine technology has become a necessity for the future of healthcare, but it's the right investments that will dictate the successes and accomplishments that drive healthcare forward.



Pexip's video engine powers telehealth solutions for some of the largest healthcare organizations in the world.

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