



## Remote Patient Monitoring and Connected Care

The role of CMS, HHAs, and technology in reshaping the healthcare landscape in the United States

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## Introduction

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## Introduction

While healthcare in the United States is innovative, cutting-edge, and continues to witness progress with every passing day, the healthcare system does face some infrastructural and resourcing problems.

Over the years, the healthcare system has received criticism for inefficient resource utilization, unnecessary administrative costs, and inadequate care in rural areas and smaller towns. There is also a growing concern, when it comes to annual healthcare spending. According to the Journal of American Medical Association, in 2016, the spending on medical care in the United States was twice as much as 10 high-income countries.

However, many organisations, both public and private, have taken note of this and are working on solutions that can enable cost cuts but also sustain the quality of healthcare. The primary driver here is technology.

This paper aims to analyse the changing healthcare landscape in the United States, highlight advancements in technology that are propelling the transformation of the sector, demonstrate the need for remote patient monitoring, and requirement of greater cooperation and collaboration between healthcare organisations to provide cost-effective, efficient and timely care.

## A glance at the changing medical landscape in the US

As an individual ages, the healthcare needs usually go up as well and so do the associated costs.

When it comes to the United States, one can see that the baby boomer population is aging, which means that as the population demographic changes, more medical professionals will be needed to cater to the medical needs of seniors and aging adults.

According to the U.S. Census Bureau, by 2030, more than 20 percent of U.S. residents will be 65 and over. This statistic has a multiple implications for the healthcare and medical sector.

This means that there will be a shortage of physicians in the next ten years if things continue as they are today. Also, there will be added pressure on the active labor force to contribute to safety net programs like Medicare.

While it does seem like a gloomy picture has been painted, there are ways to ensure that healthcare sector does not face the brunt of these impending changes. The most effective way to deliver care, without compromising quality and addressing physician and funding shortages, is to integrate technology in the framework.

Technology can assist in the provision of basic medical care and monitoring to the aging population and create the foundation for a sustainable healthcare model. This model, where coordinate and collaboration between multiple healthcare institutions is there, can also facilitate data sharing, reduce duplications and ensuring faster response times.

### What is remote patient monitoring?

Remote patient monitoring has the potential to bring the paradigm shift that the healthcare system needs.

In simple words, remote patient monitoring, is collecting health data from a patient, usually outside conventional care setting, like a hospital, and sending it electronically and securely to the provider(s) to facilitate medical care.

With advancements in technology, medical alert systems, in-home medical devices, and wearables can play an integral part in providing real-time data to home healthcare agencies (HHAs) and medical professionals to ensure that patients receive timely care without having to take unnecessary trips to the clinic/ER, waiting at the doctor's office, or staying at a medical facility.

### Why move towards a model that factors in remote patient monitoring?

There are many reasons why remote patient monitoring model should be given serious consideration.

Many people experience long travel time and even longer waits before they can consult a physician. While this may seem easier for a younger individual, it becomes increasingly difficult to go through this routine when you age.

Also, individuals living with chronic conditions require close monitoring. Remote patient monitoring enables close monitoring, for clinical indicators like blood pressure, ECG,

and glucose levels, even for patients spread out over a vast geographical area, giving providers updated, relevant information. This means that it helps identify issues in real-time. The sooner health concerns are identified and treated, the easier recovery is and lesser cost is incurred.

As the Medicare population increases, this approach can help improve the quality of life for the patient and reduce per capita cost of healthcare, at the same time.

Even though there is potential for remote patient monitoring, there are some challenges which have to be addressed as well. Firstly, there is a need to create awareness and enable patients to be receptive of technology. Success of this model is heavily dependent on the proper use of technology from the patient's end, hence they need to be educated and involved.

Greater collaboration between patients, HHAs, emergency services, hospitals, medical staff, and other institutions is also crucial for timely information sharing and provision of care.

Has CMS been involved in the uptake of this model?

Centers for Medicare & Medicaid Services (CMS) has recently recognised the potential remote patient monitoring has and taken steps to move towards a model where home healthcare is factored in which making allocations for healthcare on a federal level.

For 2018 and 2019, CMS is now covering new billing codes under the Physician Fee Schedule. These codes will enable providers to be reimbursed for chronic care routinely provided via communication technologies.

Centers for Medicare & Medicaid Services (CMS) has also announced significant changes to the Home Health Prospective Payment System to modernize Medicare last year. These changes facilitate the integration of technology and reduce reporting previously required for physicians.

In 2020, CMS is also implementing a new case-mix system called the Patient-Driven Groupings Model that puts the focus on patient needs rather than volume of care.

With the new case-mix system, greater data sharing and use of technology; HHAs and doctors can create personalized treatment plans and help patients feel more independent and empowered. This is not the only benefit, though. It is estimated that in

2020, these changes will reduce the burden for HHAs by approximately \$60 million per year.

Lastly, CMS is also looking at resource utilization when it comes to medical professionals, especially physicians. This is the reason why physicians would no longer be required to do the paperwork for matters like how much longer home health services are needed.

This one change is estimated to relieve an annual burden of \$14.2 million on physicians. It also means that the time doctors have can be used on more productive activities such as consultations, surgeries, and general patient care.

### What it is in it for HHAs?

Today, HHAs have an opportunity to play a greater role in patient care than ever before. They are the crucial link between the patients and the medical professionals in a new, emerging healthcare provision model.

By integrating technology, wearables, and other alert devices into their monitoring system, HHAs can also manage their resources more effectively and provide care to a larger number of patients.

For instance, three new billing codes, CPT codes 99453, 99454, and 99457, now reimburse physicians for setting up remote monitoring equipment. Not only this, other costs such as teaching patients the equipment, report monitoring, and costs incurred by other medical staff members are also covered.

This means that patients can avoid unnecessary visits to the doctor's office and can avail services provided by HHAs. With greater real-time, patient specific data available, HHAs can ensure that patient health is monitored and any future health issues are avoided.

## Technology is the way forward

It has been established that using technologies such as wearables, can enable medical professionals and HHAs to gather data that can be used to improve personalized and preventive care.

This seamless data transmission and real-time monitoring, can help closely monitor health indicators. So, in case there is a spike in the glucose levels or a sudden change in the heart rate of the patient, a prompt action from the healthcare provider's side can be taken.

Technology is the binding force for this new healthcare model. Integration of health monitoring devices, remote sensors, and clinical wearables, is not only beneficial for the immediate stakeholders, such as the patient, HHAs, and physicians but also has the potential to turn around the healthcare spending on a national level.