

Remote Patient Monitoring and Telehealth

*Breaking Down Healthcare Access Barriers, Improving Patient Care,
and Reducing Costs*

An Executive White Paper By

Mobility eXchange™

Executive Summary

Due to aging populations, the rise of chronic illnesses, and socioeconomic hurdles, an increasing number of patients continue to struggle to get access to healthcare services.

The effects of these issues drive up expenditures as healthcare facilities operate at maximum capacity due in part to high readmission rates, hospital over-utilization, and lengthy hospital stays.

The implementation of remote patient monitoring (RPM) and telehealth systems can address these issues by improving medical care and optimizing costs. However, these modern technologies do not come without their challenges.

Still, as technology advances, it finds new solutions to age-old problems. It creates streamlined processes for facilities, providers, and patients.

A Shift in Demographics

Due to the higher understanding of positive lifestyle changes such as the risks of tobacco and alcohol and the advances in medical care, people's lifespans are extending.

Baby boomers make up a significant percentage of the United States population. All baby boomers will be older than 65 by 2030, making the percentage of those at retirement age go from 13% to almost 20%.¹

**80% of Americans,
65 and older, have
at least one
chronic disease
that requires
continuous
healthcare
services and
monitoring.²**

An Increase in Chronic Illnesses

80% of Americans, 65 and older, have at least one chronic disease that requires continuous healthcare services and monitoring.² Chronic conditions such as diabetes, arthritis, and obesity strain the healthcare systems.

These conditions will only increase as populations continue to age with increased longevity resulting in more years in need of health care services.

Non-Clinical Issues

The growing pressure on the healthcare systems presents both clinical and non-clinical challenges.

Healthcare over-utilization is not a new issue but has been escalated in the last few years due to the COVID-19 pandemic and will continue to be an issue as chronic illnesses are on the rise.

Socioeconomic hurdles such as housing, food, and transportation significantly affect an individual's positive health behaviors. According to the American Hospital Association, 3.6 million Americans do not obtain medical care each year due to transportation issues.³ These unmet socioeconomic issues continue to result in poor health outcomes and put a strain on healthcare resources.

Healthcare expenses continue to be excessively high while health outcomes are lower than in many other developed countries.⁴ According to the Center for Medicare & Medicaid Services: "National health spending is projected to grow at an average annual rate of 5.4 percent for 2019-28 and to reach \$6.2 trillion by 2028."⁵ The cost of hospital readmissions alone is substantial, costing roughly \$26 billion a year.⁶

5.4%

"National health spending is projected to grow at an average annual rate of 5.4 percent for 2019-28 and to reach \$6.2 trillion by 2028."⁶



Why Remote Patient Monitoring and Telehealth

Though by no means new technology, RPM and telehealth systems have been fast-evolving technology with many benefits for patients and providers. Implementing an RPM program for chronic care management is a solution to the vast majority of problems faced by both the patient and the care provider.

Chronic illnesses require a considerable amount of time and monitoring to manage correctly. Without proper management, conditions such as hypertension, heart disease, and diabetes are the leading causes of hospitalizations and readmissions.

Monitoring patient vitals is a healthcare provider's primary way of tracking a patient's progress. All vitals tracked through RPM devices will transmit the data to the provider digitally—eliminating the need for an in-person doctor's visit just to obtain vitals. The management of such vitals can then be discussed through telehealth, further reducing the need for an in-person visit.

Condition	Device	Vitals Monitored
Hypertension	Blood Pressure Cuff	Blood Pressure
Diabetes	Glucometer	Blood Glucose Level
Cognitive Heart Failure	Scale	Fluid Retention
COPD	Pulse Oximeter	Oxygen Levels

Like chronic illnesses, acute care can also receive the same benefits from RPM and telehealth. Acute care circumstances that can benefit from RPM and telehealth include post-surgical and acute care hospital discharges.

The Benefits of Remote Patient Monitoring and Telehealth

An increasing number of studies have been conducted on the benefits of RPM and telehealth programs.

- **Shorter length of hospital stay** resulting in hospitals having a lower operating capacity.⁷
- **Lower rates of ER visits** freeing up resources for the critically ill.⁸
- **Lower readmission rates** resulting in reduced penalization fees.⁹
- **Better health outcomes** for patients with chronic conditions.¹⁰

With the promising evidence of the benefits of RPM and telehealth, the technology is experiencing rapid growth and positive feedback from both patients and providers.

According to the American Medical Association, medical practices utilizing telehealth technology went up from 11.6% to 26.2% from 2018 to 2020.¹¹

A study from MSI International showed four out of five Americans are in favor of using RPM and telehealth.¹²

The Challenges of Remote Patient Monitoring and Telehealth

There are many different factors to consider when evaluating an RPM and telehealth solution, such as ease of use, customization, integration, and actionable analytics. Within these factors, many challenges can present themselves.

User-Friendly or User-Deterrent?

How user-friendly the software is can be an essential factor for not just healthcare professionals but the patients as well. If the software is not easy to use, the healthcare team may find it more of a hindrance than a help as they try to provide the best care possible to their patients.

At the same time, patients will be less open to the idea of remote patient monitoring if they are having a challenging time understanding how to use it. Evaluating patient demographics should be considered, too, as the elderly populations especially may face difficulties using modern technologies.

Integrated Clinical Workflow or Inconvenient Add-On?

Every healthcare facility operates in its own unique clinical workflow. As such, an RPM and telehealth system should not be one-size-fits-all. If an RPM and telehealth system is not correctly integrated with a facility's EMR system and workflow, it will feel like an inconvenience instead of a streamlined solution. It is essential to find an RPM system customizable to your facility's clinical workflow and the EMR system already in place.

Actionable Analytics or Disorganized Data?

Healthcare providers are already encumbered with large amounts of patient data. Suppose an RPM system does not scale that data into specific and actionable steps. In that case, it will be difficult to create positive health outcomes for patients. Look for RPM solutions that offer effective analytics that promote improved patient outcomes.



Implement the Right Solutions with Mobility eXchange

Mobility eXchange can help implement the right RPM and telehealth systems to improve medical care and optimize costs.

As an industry leader, Mobility eXchange offers the guidance and support needed to leverage the latest technology.

There are many overall benefits to working with Mobility eXchange for the RPM and telehealth solutions:

- User-friendly software for both the provider and the patient
- Training and technical support
- Provider to patient messaging, reminders, and video communication
- Automated Bluetooth vital monitoring devices
- Assistance in the distribution of RPM devices to patients
- Software integration to EMR and clinical workflows
- Works with your healthcare team to outline KPI's for outcomes reporting
- Completely secure and HIPPA compliant

Mobility eXchange can help implement the right RPM and telehealth systems to improve medical care and optimize costs.

Conclusion: An Advancing Technology

By examining the issues that face healthcare today, better solutions are implemented for tomorrow. Patients and providers feel more connected, and the quality of care continues to increase.

As remote patient monitoring and telehealth technology continue to grow, Mobility eXchange will continue to educate and assist providers and patients in finding the solutions that create the best outcomes.

Mobility eXchange™

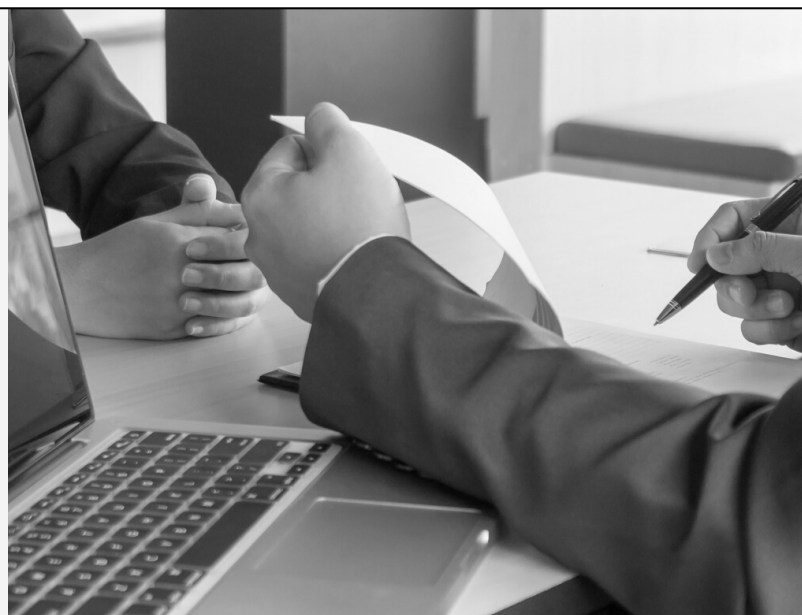
About Us

Mobility eXchange is a leading technology solutions provider deploying purpose-built devices and enabling clients in innovative ways to increase revenue, create new services, and provide distinct market differentiation within their industry while creating an edge over the competition.

To Learn More

Please visit our website at
<https://mobility.exchange/>

Or email us at
Ron@mobilityexchange.net email



Sources

1. US Census Bureau. (2021, October 8). Older People Projected to Outnumber Children for First Time in U.S. History. Census.Gov. <https://www.census.gov/newsroom/press-releases/2018/cb18-41-population-projections.html>
2. "The State of Aging and Health in America 2007," Centers for Disease Control and Merck Company Foundation. www.cdc.gov/aging/saha.htm
3. Social Determinants of Health Series: Transportation and the Role of Hospitals | AHA. (2017, November 15). American Hospital Association. Retrieved February 11, 2022, from <https://www.aha.org/ahahret-guides/2017-11-15-social-determinants-health-series-transportation-and-role-hospitals>
4. NHE Fact Sheet | CMS. (2021b, December 15). CMS.Gov. Retrieved February 10, 2022, from <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NHE-Fact-Sheet#:~:text=Federal%20government%20spending%20for%20health,the%206.3%25%20growth%20in%202019.>
5. Nassery, N., Segal, J. B., Chang, E., & Bridges, J. F. (2015). Systematic overuse of healthcare services: a conceptual model. *Applied health economics and health policy*, 13(1), 1–6. <https://doi.org/10.1007/s40258-014-0126-5>
6. Rau, J. (2016, April 11). Medicare Fines 2,610 Hospitals In Third Round Of Readmission Penalties. Kaiser Health News. Retrieved February 10, 2022, from <https://khn.org/news/medicare-readmissions-penalties-2015/>
7. Leff, B., Burton, L., Mader, S. L., Naughton, B., Burl, J., Inouye, S. K., Greenough, W. B., 3rd, Guido, S., Langston, C., Frick, K. D., Steinwachs, D., & Burton, J. R. (2005). Hospital at home: feasibility and outcomes of a program to provide hospital-level care at home for acutely ill older patients. *Annals of internal medicine*, 143(11), 798–808. <https://doi.org/10.7326/0003-4819-143-11-200512060-00008>
8. Coffey, J. D. (2021, August 13). Implementation of a multisite, interdisciplinary remote patient monitoring program for ambulatory management of patients with COVID-19. *Nature*. Retrieved February 11, 2022, from https://www.nature.com/articles/s41746-021-00490-9?error=cookies_not_supported&code=27060372-80f0-42fe-8086-fe1640731389
9. Mehta, S. J., MD. (2020, December 21). Effect of Remote Monitoring on Discharge to Home, Return to Activity, and Rehospitalization After Hip and Knee. *Jama Network*. Retrieved February 11, 2022, from <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2774354>
10. Woodhouse, A. G., Orvin, C., Rich, C., Crosby, J., & Keedy, C. A. (2022). Diabetes outcomes before and during telehealth advancements surrounding COVID-19. *Journal of the American Pharmacists Association*, 62(1), 214–217. <https://doi.org/10.1016/j.japh.2021.09.011>
11. Kane, C. K. (2021, September). Telehealth in 2020: Survey Data Show Widespread Use Across Most Physician Specialties and for a Variety of Functions. American Medical Association. <https://www.ama-assn.org/system/files/2020-prp-telehealth.pdf>
12. M. (2021, August 3). MSI International Study: Americans View Remote Monitoring of Health Favorably. Savanta MSI. Retrieved February 11, 2022, from <https://www.msimsi.com/msi-remote-monitoring-study-pr/>