

Remote Patient Monitoring

Current Use and Future Trends

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The COVID-19 pandemic brought forth a global awareness of remote patient monitoring (RPM) as a [viable means of clinical care](#) during the mandated lockdowns. But the benefits of using technology and wearables to evaluate health and wellness extend beyond respiratory conditions to other indicators of our health. For patients unable to travel to a medical facility because of illness, disability, or proximity, RPM offers a safe and convenient way to access care, along with real-time data we can use to make informed decisions about our patient's healthcare needs.

CURRENT STATE OF THE INDUSTRY

As demand for wearable devices increases, so does RPM's market value. Including [common monitoring devices](#) for cardiac issues, respiratory concerns, and neurological disease, the global AI RPM market was [estimated](#) at \$1.4 billion in 2022. Factoring in [smartphone usage](#), the value increased to \$6.8 billion.

RPM is an economical alternative to medical testing for chronic diseases, [particularly hypertension](#). Bluetooth features of medical devices such as blood pressure monitors, diabetic testing machines, and medical scales help document patient history and evaluate whether a treatment is effective. In addition, for ailments like cardiac issues or neurological disease, which may result in fatal consequences if not addressed promptly, the use of RPM prompts us to act quickly when a problem arises.

The current fitness trackers, smartwatches, and medical-grade devices allow us to collect data on a patient's sleep patterns, heart rate, oxygen levels, and overall fitness in real-time. This data can be used to identify changes in a patient's health status and provide the appropriate interventions. Monitoring health conditions such as arrhythmias and heart rate further reduces the risk of serious complications and even death from a sudden cardiac event.

FUTURE TRENDS

A 25.2% growth rate is [expected by 2027](#) for the global AI remote patient monitoring market, at an estimated market value of \$4.3 billion. With Bluetooth connectivity and artificial intelligence being factored into the development of more patient-facing devices, the market value of RPM is predicted to increase. [One study predicts](#) an \$18.23 billion growth in the market of blood glucose monitoring by 2030, while [another](#) speculates that the use of smartphone technology may soon replace physical diagnostic methods like sticking one's finger for blood analysis. New technology, such as [digital inhalers](#), is currently being tested for their effectiveness in treating asthma in patients with poor adherence to traditional methods.

While growth in the use of remote patient monitoring systems is anticipated, and technological advances make its use more practical for many, it is not without potential drawbacks. The theft of medical data and personal information [remains a potential target](#) for cyber thieves and warrants heightened security monitors. There is also the potential cost of [increasing the workforce](#) that develops and maintains both the systems used to monitor RPM and the production of the devices themselves.

RPM devices can provide more accurate data than patient feedback, especially among elderly patients, persons diagnosed with cognitive or neurological disorders, and [infants](#). As the population ages and geriatric issues become more prevalent, the ability to access data around the clock and provide remote treatment while minimizing the potential for exposure will become paramount. Finally, the use of RPM may help address the [current global shortage](#) of healthcare professionals.

PROMOTING OVERALL HEALTH

When we have a patient's health data at the ready, we can evaluate progress toward health goals, including weight loss and cardiac fitness. This information can be used to motivate patients and encourage them to make healthy lifestyle changes to achieve their goals. With respiratory conditions like long Covid, asthma, or bronchitis, the use of RPM for heart rate and [pulse oximetry monitoring](#) captures data we can use to develop more accurate and tailored treatment plans.

Using RPM to track weight loss and assess patient fitness over time provides a window into overall health and helps establish goals that build toward a lifetime of fitness. When the data collected from RPMs is stored in a patient's digital health profile, it is available for access and analysis by both primary healthcare providers and specialists if the patient consents. This connectivity enhances communication and encourages [collaboration](#).

Real-time tracking of patient activity and key health measurements make smartphones an important part of RPM while also encouraging healthy habits such as daily exercise, hand washing, and sleep goals. As the Internet of Things expands, it is likely the use of RPM will become a normal part of our everyday healthcare interactions. By [leveraging the power of digital technologies](#), we not only ensure a timely response to changing health conditions and medical concerns but also ensure the most comprehensive care for our patients.