Asynchronous remote patient monitoring goes mainstream

Healthcare systems expand clinical reach, increase patient capacity and improve quality of care.

INTRODUCTION

By 2024, as many as 30 million Americans will use remote patient monitoring (RPM) to track their well-being or collect medical data for a medical professional or healthcare provider.[1]

RPM shows great promise, and the COVID-19 pandemic has sharply accelerated interest in the technology. According to a study by VivaLNK, 20% of large healthcare facilities said they have already adopted some sort of RPM solution for their organization.[2] But as more providers have begun to use connected devices and other forms of RPM in the course of caring for their patients, healthcare systems are encountering two significant obstacles standing in the way of achieving the technology's full potential:

- **Most RPM solutions address a single disease or clinical area,** leading to a proliferation of multiple disparate RPM solutions within a large healthcare system which quickly becomes unmanageable

- **Most RPM solutions dictate a specific workflow,** a big impediment for providers who are loath to adjust their workflows to suit a technology

What is needed to overcome these obstacles is a comprehensive, flexible, asynchronous RPM platform, so that healthcare systems can step back and consolidate their RPM practices and address practically any clinical condition or protocol with one solution — a critical capability for large healthcare organizations that want to enable remote patient care across departments and across disease states.

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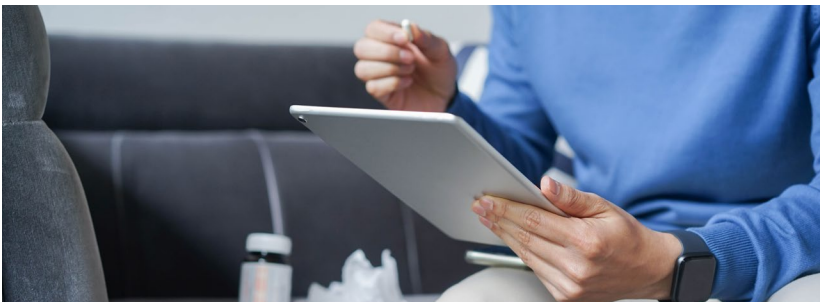
1   "The Remote Patient Monitoring Report," eMarketer, https://www.emarketer.com/content/remote-patient-monitoring-report

2   "Remote Patient Monitoring to Be Mainstream in 5 Years," HealthTech Insider, https://healthtechinsider.com/2021/03/12/remote-patient-monitoring-to-be-mainstream-in-5-years/

"Rigid individual point solutions for RPM require a provider to adapt to the solution's workflow. Best-in-class, complete platforms offer more flexibility, allowing providers to implement any workflow they want and practice medicine the way they know is best."

— **Uri Bettesh, Founder and CEO of Datos Health**

With one solution across the healthcare system, hospitals can avoid the growing complexity of managing multiple RPM point solutions and make sure they're experiencing all the upsides and none of the downsides. Many noncritical care activities can be automated with asynchronous remote care, freeing up care teams to devote more time to tasks that require their full expertise. Healthcare systems that embrace this new paradigm of high-quality, asynchronous care through RPM will set themselves up to thrive in three important ways:

Reduction in Hospital Readmission

According to the University of Pittsburgh Medical Center, RPM helped to reduce its readmission rate by 76%.[3]

Improved Patient Outcomes

Lincoln Hospital District #3 in Spokane, Washington, saw such dramatic improvement in clinical outcomes in patients' A1C in a pilot group that they moved forward with implementing RPM with other primary chronic diseases such as COPD and CVD.[4]

Increase in CMS reimbursement

The Centers for Medicare & Medicaid Services (CMS) has finalized payment for seven RPM codes,[5] making it easier than ever to bill and be reimbursed for remote care.

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3 "At UPMC, remote patient monitoring helps reduce ER utilization and hospital readmissions," Healthcare IT News, https://www.healthcareitnews.com/news/upmc-remote-patient-monitoring-helps-reduce-er-utilization-and-hospital-readmissions

4 "Chronic Diseases Managed from the Comfort of Patients' Own Home," Washington State Hospital Association, https://www.wsha.org/wp-content/uploads/WSHA-RPM-Article-041116.pdf

5 "Final Policy, Payment, and Quality Provisions Changes to the Medicare Physician Fee Schedule for Calendar Year 2021," CMS.gov, https://www.cms.gov/newsroom/fact-sheets/final-policy-payment-and-quality-provisions-changes-medicare-physician-fee-schedule-calendar-year-1

A SAMPLE LIST OF USE CASES FOR A COMPLETE RPM SOLUTION

A complete RPM solution such as Datos Health will introduce customizable workflows across departments and disease state including but not limited to the following:

- Cardiac rehabilitation
- Covid-19 monitoring
- Type 1 and 2 diabetes care
- Childhood obesity and diabetes
- Hypertension monitoring
- Psychiatric monitoring
- IBD symptom management
- LVAD monitoring
- Neurology and Parkinson's monitoring
- Gestational diabetes and preeclampsia monitoring
- Oncology symptom management
- Pulmonary rehab

COMPLETE RPM SOLUTION BENEFIT #1:

Quickly and easily create custom workflows across multiple disciplines and in any location

The American Hospital Association reports that people with chronic diseases use the majority of healthcare services and account for most of the costs.[6] While care in most chronic disease areas stand to benefit from automated RPM, what is needed is a comprehensive, flexible RPM platform that allows providers to customize the RPM workflows to best suit their unique existing processes, while allowing healthcare systems to only have to manage one single robust automated RPM system across all areas of specialization.

For example, one senior executive at a large healthcare system discovered that various healthcare provider groups across the system had deployed at least eight or nine different RPM products. With some effort, the organization was able to cut that number down to four, but it was still too many to manage efficiently considering each solution had its own data models, connected devices, integration capabilities, data security models, etc. to manage.

By replacing these solutions with a single system, this organization would be able to cover all of the needs of these healthcare providers while only managing one vendor and the requirements that go with it. Each provider, regardless of specialty, would be able to use the basic pieces of the RPM system as Lego blocks to build a completely custom workflow to suit how they practice medicine.

6   "," American Hospital Association, https://www.aha.org/system/files/content/00-10/071204_H4L_FocusonWellness.pdf
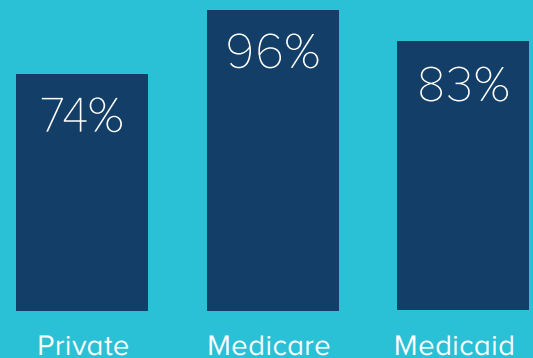
People with chronic diseases use the majority of heath care services and account for most of costs.

PERCENT OF HEALTH RESOURCES USED BY PEOPLE WITH CHRONIC CONDITIONS

Percent of Health Services Used

Prescriptions Filled	Hospital Admissions	Physician Visits
91%	81%	76%
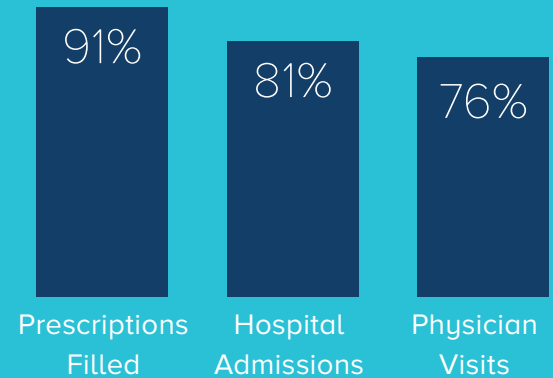
Percent of Health Expenditures

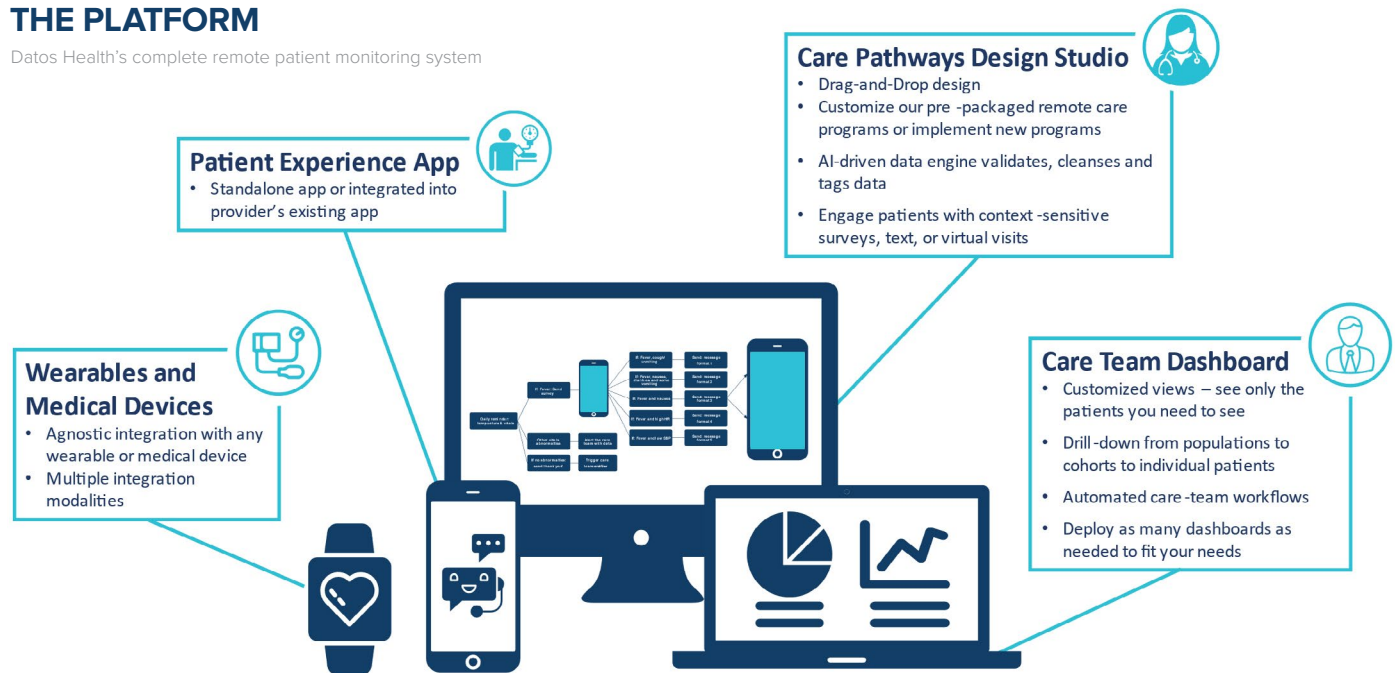| Private	Medicare	Medicaid
74%	96%	83%

COMPLETE RPM SOLUTION BENEFIT #2:

Optimize the time of specialists by limiting their noncritical day-to-day workload

Healthcare providers practice medicine and nursing because they're passionate about caring for patients. They strive to practice at the top of their license at all times, prioritizing activities that leverage the full extent of their education, training, and experience and delegating activities that can be done just as effectively by someone with another set of skills.

THE PLATFORM

Datos Health's complete remote patient monitoring system

Patient Experience App
- Standalone app or integrated into provider's existing app

Wearables and Medical Devices
- Agnostic integration with any wearable or medical device
- Multiple integration modalities

Care Pathways Design Studio
- Drag-and-Drop design
- Customize our pre-packaged remote care programs or implement new programs
- AI-driven data engine validates, cleanses and tags data
- Engage patients with context-sensitive surveys, text, or virtual visits

Care Team Dashboard
- Customized views — see only the patients you need to see
- Drill-down from populations to cohorts to individual patients
- Automated care-team workflows
- Deploy as many dashboards as needed to fit your needs

"Without a complete, adaptable and flexible RPM system, healthcare providers might find a dozen different uses and need a dozen different products. It's an unmanageable logistical and technological challenge that would prevent a healthcare system from making the most of this incredible advancement in technology."

— David Yavin, PhD, Chief Strategy Officer of Datos Health

This is where the full value of RPM applied at scale to a healthcare system's operations becomes clear. Asynchronous RPM that can be customized to different specialties and workflows allows providers to optimize the way they deliver their care. Noncritical care activities for lower acuity patients such as symptom monitoring, vitals collection and some triage can be automated with asynchronous remote care, freeing up care teams to devote more time to critical tasks that require their full expertise. Patients who need it continue to be supported by synchronous care, such as in-person visits or telemedicine video calls.

Noncritical care activities for lower acuity patients can be automated with asynchronous remote care, freeing up care teams to devote more time to critical tasks that require their full expertise.

And with noncritical and rote care activities automated, care teams can focus on more high-quality interactions with patients who need their attention. This increases the capacity of the healthcare team to provide care while also increasing the consistency and quality of care for patients according to who needs attention most urgently — all based on flexible clinical workflows customized to the care team's needs.

According to a joint report from AHIP, the national association of America's Health Insurance Plans, and C-TAC, the Coalition to Transform Advanced Care, remote patient monitoring (RPM) is among the most efficient and effective tools available for chronic disease management for older adults — particularly those with diabetes, heart failure, and chronic obstructive pulmonary disease (COPD).[7]

7   "Report: RPM 'Growing in Popularity' for Chronic Disease Management." Care Innovations, https://news.careinnovations.com/blog/rpm-growing-in-popularity-for-chronic-disease-management

"Daily monitoring of symptoms and side effects can help reduce suffering, increase adherence to life-saving treatments, and reduce unnecessary visits to the ER. But patients within different specialties need different kinds of follow-up. A comprehensive, flexible, automated RPM system allows healthcare providers to focus their attention on the patients who need it most."

- Uri Bettesh, Founder and CEO of Datos Health

COMPLETE RPM SOLUTION BENEFIT #3:

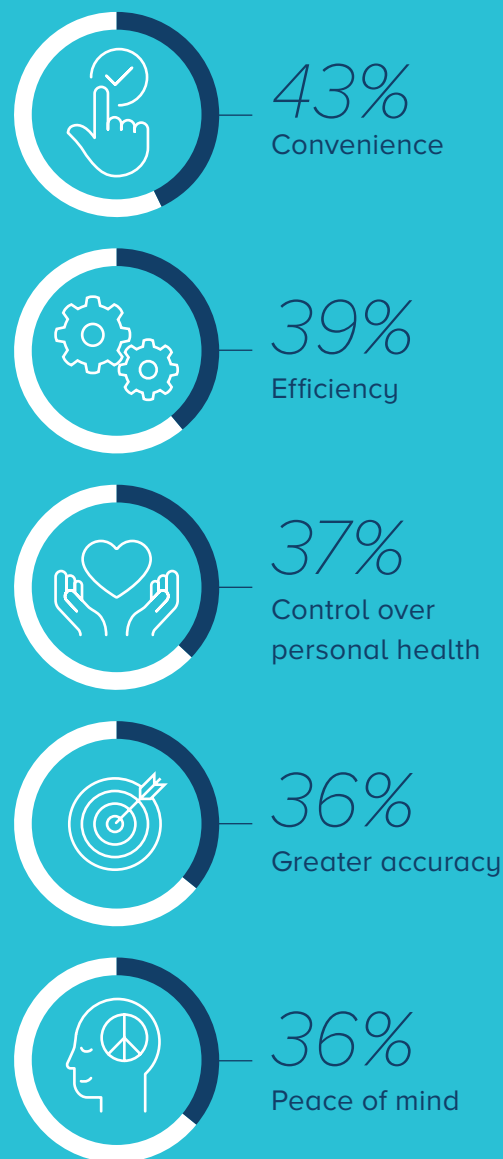**Deliver a better patient experience and better outcomes**

When health systems enable providers to make some of patient care asynchronous, patients have more flexibility to manage their care through activities like measuring their vital signs and reporting symptoms or tracking their activity levels. They are more engaged, and therefore more likely to adhere to their care plan. Furthermore, they can monitor their health on their own time, not tied to a clinician's schedule. Thanks to automation, care teams are able to devote more time to the patients who need it most.

In certain settings, automated triage can also help alleviate a patient's symptoms without the need to actually speak with a provider and can help prevent some patients from unnecessary trips to the ER during off-hours. Overall, this has a positive impact on the patient's experience, as they feel more connected to their healthcare provider and health status and less anxiety about their health.

When chronic disease patients do head into the office or healthcare system to see their doctors, which might only take place a few times a year, the doctor has much better data pertaining to how the patient has been doing since the last visit and can therefore focus more time on the patient's care.

In chronic disease care, automated, asynchronous RPM not only improves care and patient experience between visits, but also significantly improves the quality of the periodic synchronous encounters with the provider. Without RPM, a patient might come in for their quarterly visit and spend the first 10-15 minutes of the appointment trying to recall their experience and the symptoms they've been having. Unfortunately, especially for patients with chronic conditions, what happens in

MSI INTERNATIONAL REPORTS[8] THE FOLLOWING TOP FIVE BENEFITS OF REMOTE PATIENT MONITORING ACCORDING TO AMERICAN PATIENTS:

43%
Convenience

39%
Efficiency

37%
Control over personal health

36%
Greater accuracy

36%
Peace of mind

8   "MSI International Study: Americans View Remote Monitoring of Health Favorably," MSI International, https://www.msimsi.com/msi-remote-monitoring-study-pr/
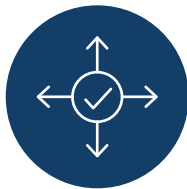
between patient encounters can be as important, if not more important than what happens during an in-person visit. Any loss or inaccuracy in that data can have serious consequences.

With RPM however, a doctor can quickly ascertain most of what they need to know about the patient's health between the visits with a quick glance at the patient's dashboard that's been automatically updated from home over the course of the past few months. The data is more complete and accurate, the physician has the information they need in the format they prefer, and the patient knows that their full experience has been captured for the person who can help them the most. And in between visits, patients can receive care on their own schedule in a consistent way that removes the risk of anything being missed by their provider.

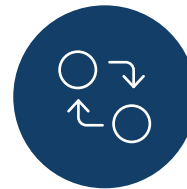## BENEFITS OF MODERN RPM

| Device agnostic and disease agnostic | Highly adaptable to conform to any remote care workflow | Clean, validated, and tagged synchronous and asynchronous data | Use as a standalone tool, or integrate with the EMR | Replicates the steps in a clinical workflow with advanced automation | Built-in reporting for CPT codes that can be uploaded to your RCM system for max reimbursement |

"With automated monitoring and workflow, patients get exactly what they need when they need it: the majority of patients carry on as usual, while patients who experience a change in symptoms or side effects have access to context-specific, automated recommendations that can react to what they've reported. Healthcare providers only take action on patients who truly need a caregiver's attention."

— David Yavin, PhD, Chief Strategy Officer of Datos Health

DELIVER THE FUTURE OF CARE — TODAY

Care providers that use RPM to deliver best-in-class care to their patients see the benefits directly. These providers are welcoming a new era of additional capacity and expertly applied automated follow-up into healthcare, using technology to enhance and improve the human genius that saves lives every day. Especially in the face of new demands on health systems to deliver high-quality care amid resource, budget, and staffing shortages, RPM represents an opportunity to deliver the future of care to healthcare patients right now.

Managing multiple point solutions for RPM across specialties and departments is a significant obstacle to broad adoption of RPM, and the solution is to consolidate those systems and use one platform to create those customized, automated care workflows. With every provider and caretaker building systems under one umbrella, health systems will have every necessary piece in place to truly provide best-in-class, optimized, and efficient care.

DATOS HEALTH

ABOUT DATOS HEALTH

Since 2015, Datos Health has supported the growing need to monitor and care for patients remotely while maintaining high-quality standards of care and patient satisfaction. The Datos Health platform enables quick and easy deployment of personalized, automated remote care programs. Our device-agnostic solution facilitates connected care delivery across any clinical condition, patient profile, and treatment plan, significantly increasing patient engagement and helping to reduce adverse events. Datos Health can be used as a standalone platform or can integrate with any EMR. Care teams can choose from our pre-built remote care programs which can be fully customized as needed, or they can leverage their dedicated Datos Health Client Success manager to implement their own programs.