Remote Patient Monitoring for Rural Michigan Hospitals

MICHIGAN CENTER for RURAL HEALTH

higi care everyday
a modivcare service

Acknowledgements

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We are grateful to have studied remote patient monitoring (RPM) implementation at three independent rural Michigan hospitals and their associated clinics. A special thank you to the care managers, clinicians, staff, and patients for allowing us to visit their practices, conduct research activities, and for sharing their care journeys, perspectives, and experiences.

We would especially like to thank the following organizations for their participation in the research that resulted in the development of this guide:

- Helen Newberry Joy Hospital (Newberry, MI)
- McKenzie Health System (Sandusky, MI)
- Schoolcraft Memorial Hospital (Manistique, MI)

These three hospitals and their associated clinics contributed deeply to the success of the project.

And finally, a special call out and sincere thank you to the project leads at the aforementioned hospitals. It is because of the steadfast support of these project champions that we were able to capture many of the nuances that come along with implementing RPM programs at rural independent hospitals, which stand to serve countless others through the memorialization of such experiences in this playbook. We are most grateful for their partnership, teamwork, and 'can-do' attitudes!

"Remote patient monitoring is transforming healthcare in rural communities by bridging the gap between patients and providers, improving health outcomes, and addressing critical social determinants. By ensuring prompt medical intervention and breaking down socioeconomic disparities, it promotes a more inclusive healthcare system. The Michigan Center for Rural Health extends heartfelt thanks to the Michigan Health Endowment Fund and our valued collaboration with Higi, a Modivcare service, for their pivotal role in driving this transformative change."

– John Barnas, Executive Director,
Michigan Center for Rural Health

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Introduction

Remote patient monitoring (RPM) encompasses the various processes and functions utilized by a patient's care team to assist the patient in effectively managing their medical conditions. This is achieved by utilizing medical devices outside of traditional health care settings, usually in the comfort of their own home. These devices capture physiological biometric readings that are electronically and securely transmitted to a patient's care team, providing a view of the patient's vital health measurements in between office visits. Biometric data captured through RPM devices includes blood pressure, blood glucose, body weight, heart rate, and oxygen saturation, appropriate to the chronic condition(s) of the patient.

RPM is a method of healthcare delivery that is considered a type of telehealth, leveraging technology to facilitate a healthcare provider's ability to provide remote, virtual care to their patients. Along with the necessary technology, care managers are also an essential component of RPM. RPM care managers are clinical professionals who directly assist and monitor patients as part of a personalized care plan for qualifying RPM diagnoses and related comorbid conditions.

> "RPM goes far beyond technology, with underlying processes and involved actors playing a central role in care provision."[1]

> "[C]ollecting patient data is not the only goal of an RPM program. Patient education is another major component. [...] [T]he data can empower patients and give them the information they need to help modify their behavior or lifestyle to create healthier outcomes."[2]

RPM can greatly enhance the primary care experience for both providers and patients but does not replace it. RPM can inform accurate diagnoses, promote medication adherence, and/or facilitate medication adjustments, but does not include standard activities performed by a patient's PCP or specialist, like adding/adjusting diagnoses or titrating medications.

While RPM traditionally addressed chronic conditions, its evolution is now leading to increased deployment in treating acute conditions, such as gestational diabetes and maternal hypertension, at a higher rate than previously seen. Research has shown that RPM can be an effective means of helping patients improve health outcomes, reduce unnecessary care, and reduce healthcare costs. In addition to these patient-centric benefits, RPM has also been proven to empower providers to operate with increased efficiency and

[1]Miranda, R., Duarte Oliveira, M., Nicola, P., Matos Baptista, F., & Albuquerque, I. (2023, January 30). Towards a Framework for Implementing Remote Patient Monitoring From an Integrated Care Perspective: A Scoping Review. Retrieved 2024 January, from International Journal of Health Policy and Management: https://www.ijhpm.com/article_4400.html

[2]Scott, J. (2021, June 17). The Benefits of Remote Patient Monitoring Are Wide Ranging. Retrieved 2024 January, from HealthTech: https://healthtechmagazine.net/article/2021/06/benefits-remote-patient-monitoring-are-wide-ranging-perfcon

provide more proactive, personalized, and convenient care to their patients. It's no wonder then, according to Insider Intelligence, an estimated 70.6 million U.S. patients will use RPM tools by 2025.[3]

With such positive clinical and experiential outcomes tied to RPM, some may be quick to think it would be a no-brainer for healthcare organizations to invest in this capability. However, provider bandwidth remains limited, and biometrics devices can lead to significant signal fatigue. If the RPM program is not implemented effectively and not in keeping with an organization's unique culture and the culture of the patients they serve, RPM can quickly turn into an expensive venture with no impact on outcomes. Hence, the importance of this playbook.

"Today's patient wants to engage in their health and experience care on their terms. Through telehealth and remote patient monitoring solutions, patients can now choose to track their health in new and novel ways, receive personalized feedback, and stay more closely connected with their providers. These solutions benefit providers, as well, through the ability to collect, interpret, and respond to patient data in a more timely and proactive manner. Providers operating in this new digital age of medicine are up against new patient expectations when it comes to their care. Their ability to meet patients where they're at and deliver value through timely, proactive, and personalized care has many outputs and is ultimately evaluated through patient experience, an integral component of healthcare quality and practice sustainability."[4]

This guide will help healthcare organizations, and especially practice teams, consider key issues that may impact the successful launch of an RPM program and promote thoughtful decisions that best fit the individual circumstances of each organization.

[3]The technology, devices, and benefits of remote patient monitoring in the healthcare industry. (2023, January 19). Retrieved January 2024, from Insider Intelligence: https://www.insiderintelligence.com/insights/remote-patient-monitoring-industry-explained/
[4]Freeman, A. M., & Bhatt, A. B. (2023). Emerging Practices in Telehealth: Best Practices in a Rapidly Changing Field. Academic Press; 1st edition. Retrieved January 2024, from ScienceDirect: https://www.sciencedirect.com/science/article/abs/pii/B978044315980000003X?via%3Dihub

Part 1: Michigan Health Endowment Fund (MHEF) 2023 Remote Patient Monitoring Pilot Overview

Scope/Description

As Michigan's non-profit State Office of Rural Health, the Michigan Center for Rural Health (MCRH) was invited to apply for the Michigan Health Endowment Fund's 2022 Special Projects and Emerging Ideas Initiative grant. MCRH's proposal, Enhancing Remote Patient Monitoring in Rural Independent Hospitals, was designed as a pilot project to embed an RPM solution into three rural independent hospitals to increase their digital health capacity and improve access to care for older rural residents. In November of 2022, MCRH was awarded the grant; in December 2022, MCRH partnered with RPM vendor Higi (a Modivcare service) to actively start working with three partner facilities: Helen Newberry Joy Hospital, McKenzie Health System, and Schoolcraft Memorial Hospital.

Over the course of 18 months, Higi oversaw the day-to-day aspects of the pilot's implementation (including project management) which anchored on operationalizing Higi's Care Everyday RPM program at each of the three partner hospitals. The first six months of the project was dedicated to planning for the RPM implementation.

RPM implementation planning phases when partnering with an RPM vendor

Baseline Preparations	Development Work	Final Planning
• Introductions between organization & RPM vendor • Contracting • Onboarding with key stakeholders • Confirm organizational goals (quality and/or efficiency) • Finalize KPIs & key metrics • Define workstreams & assign leads • Project kick-off meetings with workstream leads	• Define consumer journey • Confirm data & report communication; design & test solutions • Evaluate device connectivity limitations • Create marketing strategy, process & assets • Develop training materials & process	• Deploy training • Design & implement patient engagement program & tactics • Complete provider communication & identify additional provider champions for regular feedback • Establish reporting • Establish ongoing monitoring process • Launch RPM

Once RPM was live at each pilot site, Higi continued to oversee daily operations of the pilot and initiated the development of this playbook. Throughout the pilot, data was collected to capture clinical outcomes and patient and provider engagement and satisfaction. This playbook strives to serve as an invaluable resource for rural independent organizations as they contemplate expanding their clinical offerings to include RPM. Higi worked closely with MCRH and the three partner organizations to secure feedback and capture as many learnings as possible in hopes of memorializing the lessons learned through the MHEF funded pilot to set up other rural independent hospitals for success.

Pilot Site Organizations

Helen Newberry Joy Hospital (Newberry, MI)

Helen Newbery Joy Hospital (HNJH) is a Det Norske Veritas Accredited, Critical Access Hospital located in Newberry, Michigan, offering a wide range of services as one of the most technologically advanced, up-to-date diagnostic centers in the Eastern Upper Peninsula of Michigan. In addition to the many services and departments (including a 24/7 Emergency Department and the Gibson Family Health Clinic) which operate within the hospital, HNJH also operates two outlying clinics in the neighboring communities of Curtis and Engadine. Attached to the hospital is the Golden Leaves Living Center (39-bed long-term care unit), providing residential elders with a home-like atmosphere and access to many activities, along with 24-hour nursing care. Since 1965, HNJH has served Luce County and the surrounding area by placing a high value on compassion, customer service, quality, respect, teamwork, and trust, and their skillful physicians and professional medical staff are dedicated to growing a healthier community. For more information about HNJH and the ways in which they serve the community beyond providing compassionate and quality healthcare, please visit their website at http://www.hnjh.org/HNJHWebsite/ or call (906) 293-9200.

McKenzie Health System (Sandusky, MI)

McKenzie Health System (MHS) is a not-for-profit medical and surgical hospital in Sandusky, Michigan, with nine clinics in the surrounding region. Their team of health care professionals provides excellent, compassionate care and services to patients throughout the county. As part of their commitment to superior patient care, clinicians and staff work together to exceed expectations in quality of care, patient safety, and patient satisfaction. For more information about MHS and the many services it provides, please visit their website at www.mckenziehealth.org or call (810) 648-3770.

Schoolcraft Memorial Hospital (Manistique, MI)

Schoolcraft Memorial Hospital (SMH) is an independent state-of-the-art, 12-bed, critical access hospital in Manistique, Michigan. Founded in 1950, SMH is dedicated to delivering exceptional health and wellness services – catering to the needs of all. In 2022, the hospital completed a 12.8-million-dollar expansion project which added a state-of-the-art Rehabilitation & Aquatic Therapy center, new infusion suites and a co-located administrative building. For optimal efficiency, a Rural Health Clinic is attached to the hospital. Additional facilities include an offsite Behavioral Health Clinic and a second Rural Health Clinic in Naubinway, Michigan. The wide spectrum of services provided by SMH beyond behavioral health and the rural health clinics include: a 24-hour/day physician staffed Emergency Room, Cardiology, Otolaryngology, Physical, Occupational, Speech and Aquatic Therapy/Rehabilitation, Cardio-Pulmonary Care, Pulmonology, Medical Imaging, Laboratory Services, Home Care and Hospice, Sleep Laboratory, Physical Medicine, and Rehabilitation, Outpatient Wound Clinic, Psychiatric Medical Treatment and RediCare. Its surgical program includes Orthopedic, Podiatric, ENT, Urology, General, Bariatrics and Ophthalmology, operating two of the largest operating rooms in Michigan's Upper Peninsula. In addition to many caregivers being cross trained across disciplines to deliver care as needed within the hospital's flexible plan, SMH also welcomes various specialists who visit the area for regular appointments. To learn more about SMH and how it serves the greater Manistique Community, please visit their website at https://scmh.org/ or call (906) 341-3200.

Remote Patient Monitoring Pilot Vendor

For the pilot, MCRH worked with Higi, a consumer health engagement company and service of Modivcare (NASDAQ: MODV) that specializes in delivering risk-appropriate care management solutions, to operationalize RPM at the three pilot site organizations. By choosing to bring in a third party with RPM expertise, the pilot site organizations did not have to invest in procuring the many resources, including the necessary staff, required to implement and maintain an internally run RPM program.

Higi's RPM program, Care Everyday, is a clinician-led service that collaborates with a patient's primary care provider (PCP) to help deliver the best possible care for the patient in a way that does not further stretch an organization's employed clinicians. As the RPM vendor, Higi's clinical staff are the ones pouring over the data and weeding out all the noise generated by the nearly constant flow of patient readings from RPM devices, thus shielding the partner organization (i.e. patient's PCP) from the burden of clinically validating the data. When a physiologic reading of concern is logged, or if a patient's health numbers are trending in the wrong direction, the Higi team first assesses the situation by contacting the patient. If further medical intervention is needed, the Care Everyday clinician contacts the patient's PCP so the PCP can work with the patient on the clinically appropriate next steps.

"Practitioners' relationships with their patients, their patients' communities, and other practitioners are central to health care and are the vehicle for putting into action a paradigm of health that integrates caring, healing, and community. These relationships form the context within which people are helped to maintain their functioning and grow in the face of changes within themselves and their environments. Practitioners' relationships with individual patients both allow and demand attention to each person in all of his or her complexity—especially the meaning of health and illness to that person—rather than only to a disease or organ system within that person. Relationships with the community and with other practitioners are necessary to address fully the multiple manifestations and causes of illness and to promote the well-being of the whole person."[5]

Care Everyday serves as a powerful tool in a PCP's toolbox, providing a more complete picture of the patient's health and social needs, which helps the PCP treat patients more effectively, leading to better health outcomes, reduced clinical burden for PCPs, and enhanced coordination of care for enrolled patients.

[5]Tresolini, C.P. and the Pew-Fetzer Task Force. Health Professions Education and Relationship-centered Care. San Francisco, CA: Pew Health Professions Commission, 1994.Retrieved January 2024, from Healthforce Center at UCSF: https://healthforce.ucsf.edu/sites/healthforce.ucsf.edu/files/publication-pdf/RelationshipCentered_02.pdf

Although the Care Everyday program is enabled through technology and automation, a key differentiator is that the Care Everyday program is relationship driven. Whereas many of today's RPM solutions are either technology-driven with limited human interaction or are carried out by leveraging a technology plus humans model, Care Everyday's approach to RPM is foundationally different. Care Everyday was built on the belief that a relationship-centered care model drives the best possible outcomes. As first proposed in the longstanding and widely accepted *Health Professions Education and Relationship-centered Care: Report of the Pew-Fetzer Task Force on Advancing Psychosocial Health Education* monograph, a patient-practitioner relationship is one of four dimensions of relationship-centered care critical to improving health care outcomes:

"Recognizing the whole person perspective of health and well-being—emotional, physical, social, and spiritual—is essential, as is the ability to recognize that the many threats and contributors to health are, to the patient, dimensions of one reality, not separate realities. [...] The practitioner must be able to view health and illness in the context of the individual's lifelong process of growth and development."[5]

"I enjoy the whole process of [my dedicated care manager] telling me all the averages 'cause I am trying to get off the blood pressure medication and that's my goal. So we're working towards that, so I appreciate [my dedicated care manager's] input and giving me tips along the way." - 66 year old female pilot participant
Individual depicted is a model and not the actual patient.

The Higi Care Everyday team strives not only to build and maintain nurturing relationships with RPM patients meeting them in their community and at home, but also invests the time and resources into practitioner-practitioner relationships with members of the clinical staff at the patients' PCP organizations.

As part of the services rendered to the pilot site organizations, the Care Everyday team was responsible for the following:

- Collaborating with the pilot organizations to establish appropriate clinical workflows and data sharing processes to ensure the successful implementation of RPM
- Creating robust policies and procedures (clinical and non-clinical) for program delivery
- Ongoing regulatory compliance necessary to operationalize the RPM program
- Developing care coordination and clinical staff training materials, as well as facilitating provider training sessions
- Developing patient-facing informational materials
- Collecting patient consent (such as remote care informed consent, consent to treatment, consent to release medical information, consent to financial responsibility, patient email and text message consent, etc.) and providing applicable notices to patients (such

[5]Tresolini, C.P. and the Pew-Fetzer Task Force. Health Professions Education and Relationship-centered Care. San Francisco, CA: Pew Health Professions Commission, 1994.Retrieved January 2024, from Healthforce Center at UCSF: https://healthforce.ucsf.edu/sites/healthforce.ucsf.edu/files/publication-pdf/RelationshipCentered_02.pdf

as notice of privacy practices, notice of billing restrictions, etc.)

- Completing an initial telehealth appointment to determine and document medical necessity for patients interested in enrolling in the RPM program
- Procuring and shipping the right RPM devices to enrolled patients
- Device troubleshooting, as needed
- Providing a dedicated care manager with proper licensing to each enrolled patient for real-time monitoring and care planning
- Procuring a HIPAA-compliant RPM technology platform for day-to-day monitoring and care management
- Alert response including notification handling and intervention protocols
- Coordinating with PCPs for patient escalations
- Ongoing regular patient-specific report generation
- Facilitating ongoing operational meetings with pilot sites
- Coding and billing for RPM services rendered per all applicable billing rules and regulations
- Ongoing deployment of patient satisfaction surveys
- Regular updates to all pilots' stakeholders about program performance

Key Findings

Following the successful completion of the various implementation planning phases, the RPM pilot went live in July 2023 at Helen Newberry Joy Hospital and McKenzie Health System, with the pilot launching at Schoolcraft Memorial Hospital the following month. The enrollment period for patients opened upon the pilot's launch. Referrals were accepted up through March 29, 2024. The pilot ended June 30, 2024. All the data discussed within was collected during the aforementioned timeframe.

RPM Pilot Scope Summary		
	In Scope	**Out of Scope**
Target Population	Seniors with at least one of the following diagnosed chronic conditions: • Hypertension • Diabetes • Congestive heart failure Candidates identified by referral and or data mining	Pediatric patients
Devices	Cellular enabled: • Blood pressure cuffs • Weight scales • Glucometers	• Continuous Glucose Monitors • Remote Therapeutic Monitoring (RTM) devices • "BYOD" (Bring Your Own Device)
Data Exchange Between PCP and RPM Vendor	Regular PDF reports delivered via eFax	EHR (Electronic Health Record) bi-directional data integration

Although the main RPM workflows were standard across the three pilot organizations, there were some notable nuances based upon unique/local circumstances at each pilot site. Please find a highlight of such nuances in the following chart:

Pilot Site Organization	Patient Identification	Initial Telehealth Appointment Support	Escalations
Helen Newberry Joy Hospital (HNJH)	The HNJH team leveraged their ACO high-risk patient list and their EHR to isolate patients who were eligible to participate in the pilot. HNJH care coordinators contacted the identified patients via phone and reached them through already scheduled appointments to introduce them to the pilot. If a patient was interested in learning more, the HNJH care coordinator submitted a referral to Higi for processing.	For patients who either did not have access to internet at home or who were not confident in their ability to join the initial telehealth appointment on their own, HNJH care coordinators made themselves available for patients to come onsite and join the initial telehealth appointment with the Higi provider from a computer/tablet onsite at a HNJH location.	All patient escalations were raised up to the appropriate HNJH care coordinator. From there, the HNJH care coordinator worked with the appropriate HNJH provider to inform the patient of next steps. Following contact with the HNJH care coordinator, Higi sent an escalation report.
McKenzie Health System (MHS)	The MHS team leveraged their EHR data to isolate patients who were eligible to participate in the pilot. MHS care coordinators contacted the identified patients by phone and through scheduled appointments to introduce them to the pilot. If a patient was interested in learning more, the MHS care coordinator submitted a referral to Higi for processing. MHS providers also directly referred patients to Higi during already scheduled in-person appointments.	For patients who either did not have access to internet at home or who were not confident in their ability to join the initial telehealth appointment on their own, Higi coordinated directly with the McKenzie Health System's Sanilac EMS Community Paramedic Program to schedule a paramedic to go to the patient's home at the time of the scheduled initial telehealth appointment. The paramedic would bring an internet-enabled tablet to the patient's home so they could complete the telehealth appointment and secure the patient's signature for consent paperwork.	All patient escalations were raised up to the appropriate MHS PCP's office/nurse. From there, the MHS nurse worked with the appropriate MHS provider to inform the patient of the next steps. Following contact with the MHS PCP office/nurse, Higi sent an escalation report.

Schoolcraft Memorial Hospital (SMH)	The SMH team leveraged their EHR data to isolate patients who were eligible to participate in the pilot. SMH and Higi partnered to send a letter to these identified patients introducing the RPM program to them. Higi's patient engagement team then reached out to these patients by phone to further educate them on the program and enroll them if the patient desired.	No formal support beyond the standard Higi Patient Engagement Specialist troubleshooting was provided to patients during the initial telehealth appointment part of the RPM enrollment process.	All patient escalations were raised up to the appropriate SMH PCP's office/nurse. From there, the SMH nurse worked with the appropriate SMH provider to inform the patient of the next steps. Following contact with the SMH PCP office/nurse, Higi sent an escalation report.

"[Participating in RPM] makes me pay more attention to blood pressure and everything...that's for sure." -72 year old female pilot participant
Individual depicted is a model and not the actual patient.

Patient Identification:

The patient identification process is important to the success of a sustainable RPM program. Patient selection should be fastidious in that patients need to qualify from a medical necessity standpoint, but they also need to approach the program with a personal openness to the concept of daily biometric measurements and lifestyle recommendations. Ideally, a PCP would refer eligible patients.

Patient Enrollment:

We saw higher enrollment rates when patients were introduced to the RPM program by a trusted care partner and the referral treated like a normal Treatment or Referral Order rather than a simple suggestion.

- Patients introduced/referred to RPM directly by their PCP or by a care manager from their provider's office had the highest enrollment rates.

117	48.72%	55.34%
# of direct eligible patient referrals*	Conversion rate for eligible patients into the RPM Program	Conversion rate for eligible patients Higi was able to successfully contact**

*Although 121 patients were directly referred to the RPM pilot, 4 of those patients were later deemed ineligible to participate in the pilot due to medical disqualification. Thus, the total number of eligible referrals received was 117.
**This calculation does not include the 14 patients referred who were later categorized as 'unable to be contacted'. A patient was classified as 'unable to be contacted' after Higi made a minimum of three outreach attempts over the course of at least two weeks.

- Patients who were identified through data mining efforts and who were introduced to RPM first by a letter mailed to their home (authored by a provider from the same healthcare organization that their PCP is part of) and then received a follow up cold call from the RPM partner, enrolled at a much lower rate than the patients who learned of the program either in-person or by phone from a member of their already established healthcare team. The conversion rate for this subset of eligible patients into the RPM Program was 6.44%.

Patient Engagement:

We saw higher and greater sustained patient engagement when the patient understood how the program fit into their overall plan of care. Patients were discouraged when their PCP did not refer to their RPM enrollment/progress during appointments. Patient engagement was high when patients wanted to share their reports with specialists.

- Although patients initially introduced to the RPM program by the RPM partner as opposed to their local care team enrolled in the program at a much lower rate than patients who were referred by their already established care team, those who were initially contacted through the cold call approach and ultimately enrolled displayed very strong engagement throughout the course of the pilot. Our theory is these patients who enrolled did so as they were personally motivated to maintain or better their health status and enrolled because they wanted to, as opposed to feeling that they had to because their provider referred them.

Referring to their RPM participation

"it helps me stay on track and knowing that I have someone to talk to if I am having a bad day, I know I can reach out to [my care manager] and she will help me through whatever issue I am having" - 63 year old female pilot participant

Individual depicted is a model and not the actual patient.

Escalations:

All escalations were well received by the appropriate patient's PCP team, with medication changes being the most frequent primary care action taken.

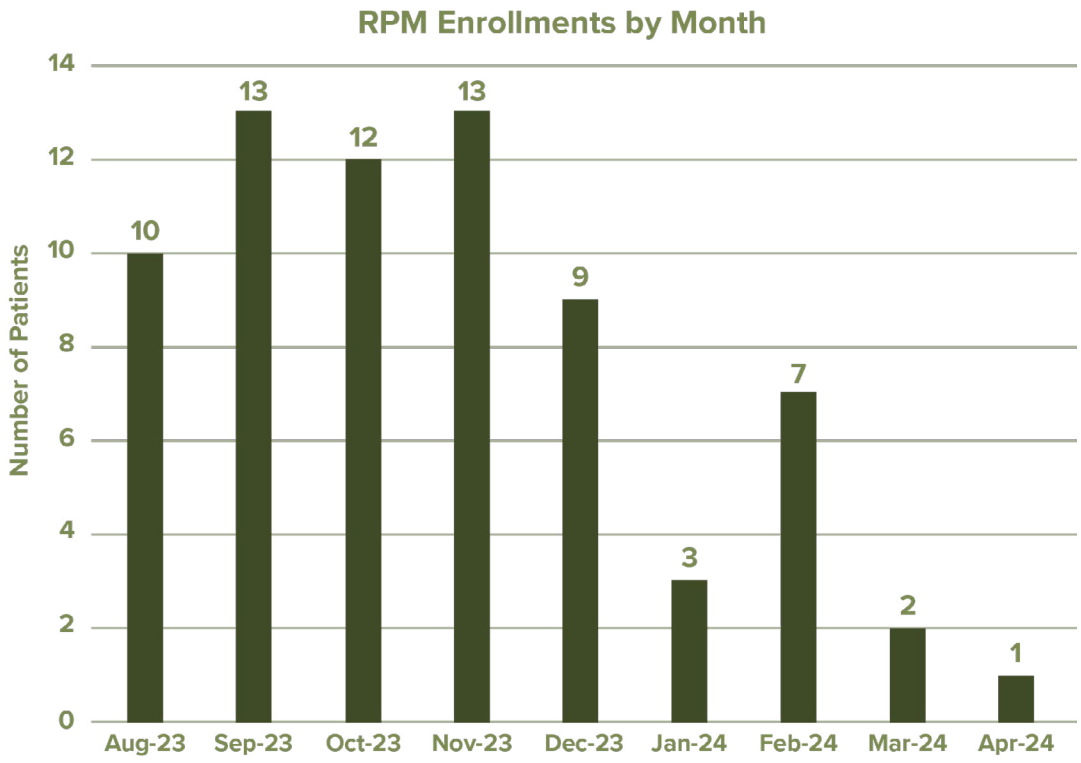
Clinical Collaboration:

Care managers from the patient's local care team/PCP office most appreciated the efforts and interventions provided through the delivery of the RPM program.

Operational outcomes:

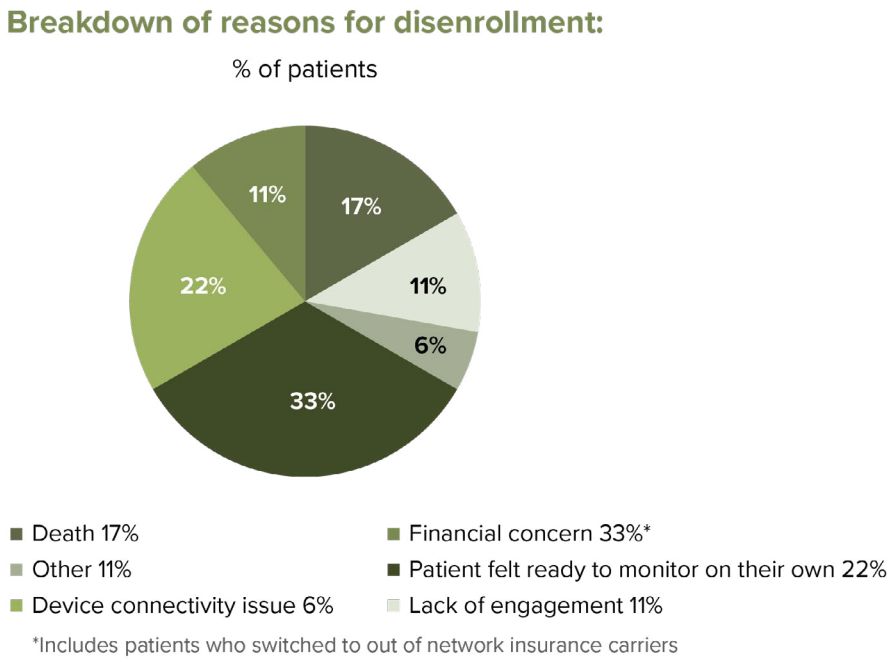
Patient Engagement

I. Aggregate Enrollment Data:
During the pilot, 70 patients enrolled in RPM.



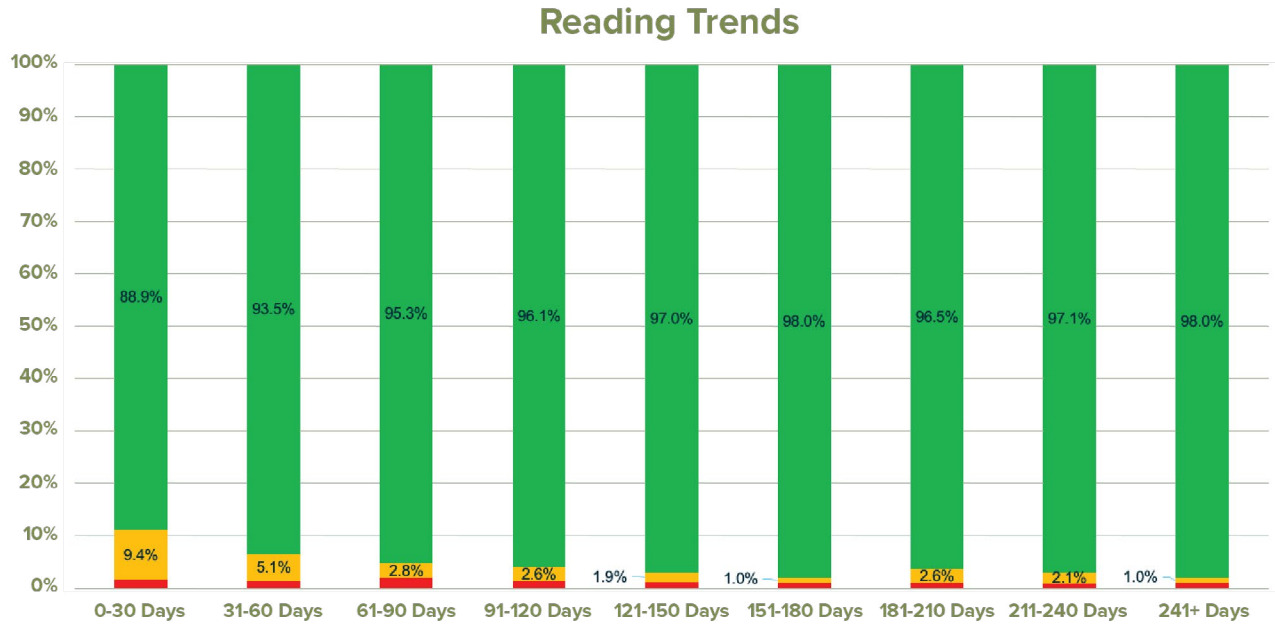
II. Aggregate Disenrollment Data:

During the duration of the pilot, 18 patients disenrolled.



Disenrollment attrition was remarkably rare. The primary cause was not lack of patient interest, but rather changes in patient's insurance coverage to out-of-network providers for whom the service was no longer covered. This age group and population also carries significant risk of death, which was the second most frequent cause of disenrollment and highlights the very real potential for meaningful health impacts which can potentially add years to life expectancy – importantly, in this demographic, at precisely the life stage when each day is increasingly valuable.

III. Out-of-Range Reading Trends:



There were > 36,000 total readings during the 11 months of active enrollment. Out-of-range readings dropped significantly over time, from 9.4% of initial readings to 1% of later readings as patient biometrics improved into normal reading ranges. Likewise, critical out of range readings dropped from 1.7% of initial readings to 0.9% of later readings. As patients progress and caregivers become increasingly confident in the action steps to take when an out-of-range reading occurs, patients can progress to increasingly self-directed healthy habits and monitoring.

IV. Population Health Observations (SDoH Data)

- 53% of pilot participants were female with the remaining 46% of participants being male.
- Pilot participants self-reported overall physical health from "Excellent" to "Poor."
- The average age of participants was 73.53 years old.
- 58% of participants indicated they needed transportation assistance for in person appointments, making digital engagement a very beneficial opportunity.
- 90% of enrolled patients had documented falls risks.
- Hypertension was the most common diagnosis for pilot participants, followed by obesity, hyperlipidemia, and diabetes.

V. Patient Satisfaction

45	9.09/10	9.33/10	9.75/10	9.71/10
# of patients surveyed	Likelihood to recommend average score	Device ease of use average score	Initial telehealth appointment experience average score	Overall experience with Higi Care Manager average score
	Based on your experience, how likely is it that you would recommend our Remote Monitoring Program to your friends or family? **Scale:** 0 = not at all likely 10 = extremely likely	Based on your experience, how easy to use is/are the device(s) you received from Higi Care Everyday? **Scale:** 0 = not at all easy 10 = extremely easy	How pleased were you with the initial telehealth visit? **Scale:** 0 = not at all pleased 10 = extremely pleased	How would you rate your overall experience with your care manager in our Remote Monitoring Program? **Scale:** 0 = not at all pleased 10 = extremely pleased

"I'm happy. I kind of enjoy [the program] because I know where my blood pressure is everyday and it's been working out fine."
- 70 year old male pilot participant
Individual depicted is a model and not the actual patient.

VI. Provider/Care Management Satisfaction

In total, 23 primary care providers were involved in the pilot. In the final months of the pilot program, a provider satisfaction survey was deployed in hopes of gaining additional, more formalized feedback from the participating pilot site providers. 16 of the participating providers completed the survey.

The most common themes heard from the responding providers included:

- Providers expressed their desire to grow the program.
- Based on earlier feedback, the RPM vendor changed the monthly summary reports provided to the PCP teams. Toward the end of the pilot survey, several providers expressed their desire for the monthly summary report to further evolve, namely condensing some aspects of the information.
- Providers expressed their desire to integrate the monthly summary reports directly into their organization's EHR for ease of use.
- For patients not directly referred by their PCP, providers shared that they would appreciate the program being locked down to provider referrals only.

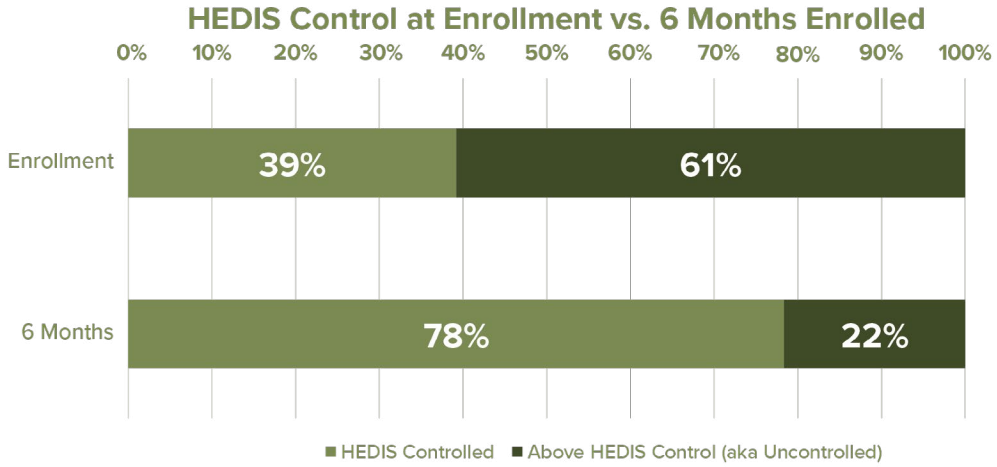
"Overall, it is a great program with amazing possibilities, especially in a rural setting. The monthly updates have the potential to empower the patient to participate in their overall health."

- Participating PCP, Dr. James Sams, Chief of Staff, *McKenzie Health System*

Clinical Outcomes:

Pilot outcomes | Improved health outcomes

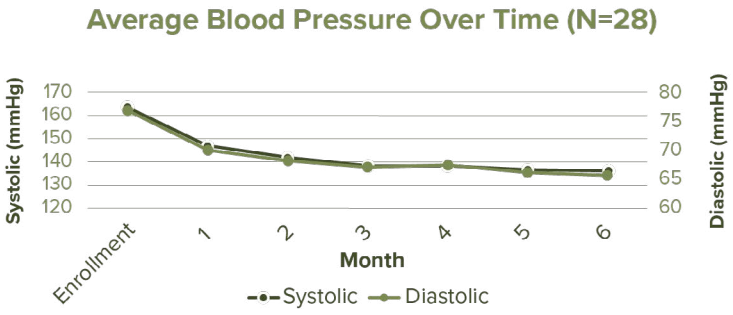
- 46 patients had 6 months of blood pressure readings
- Within our 6-month cohort, we saw a **100% increase in population under HEDIS control!**



Of the patients monitored over the program, 46 had a continuous six months of uninterrupted engagement and monitoring, allowing for more rigorous analysis of health impact. The above graph shows that at the time of enrollment fewer than half (39%) had blood pressure readings of 140/90 or below (HEDIS control measure), but that after six months of being actively enrolled in the RPM pilot, this had doubled to the majority (78%) being appropriately controlled.

Pilot outcomes | 6-month blood pressure trends continued

Patients initially uncontrolled



- N = 28 patients
- Average reduction in blood pressure:
  - Systolic: **27 mmHg**
  - Diastolic: **11 mmHg**
  - Mean Arterial Pressure: **17 mmHg**
- 5 mmHg drop in systolic blood pressure reduces risk of major cardiovasculat event by 10%*

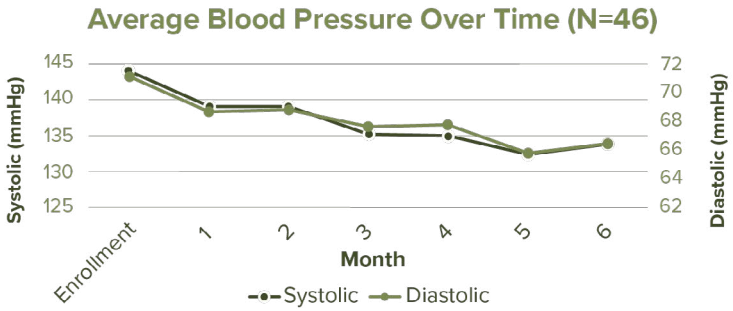
*https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8102467/

Of the 46 patients with six months of uninterrupted measurements, 28 patients began the program with defined uncontrolled hypertension exceeding HEDIS measures (greater than 140/90). The above graph

demonstrates the remarkable improvement among this most vulnerable and targeted population; not only were they brought back into HEDIS-compliant range, but their improvement was so significant (27 mmHg systolic and 11 mmHg diastolic, respectively) that they ended the program in the categorically "normal" range (less than 120 systolic/less than 80 diastolic). The benefits to individual well-being and broader health care expenditure from this improvement cannot be overstated – per the National Institutes of Health, this correlates to more than halving these patients' risk of major cardiovascular event.

Pilot outcomes | 6-month blood pressure trends continued

Patients initially uncontrolled



- N = 46 patients
- Average reduction in blood pressure:
  - Systolic: **13 mmHg**
  - Diastolic: **5 mmHg**
  - Mean Arterial Pressure: **8 mmHg**
- 5 mmHg drop in systolic blood pressure reduces risk of major cardiovascular event by 10%*

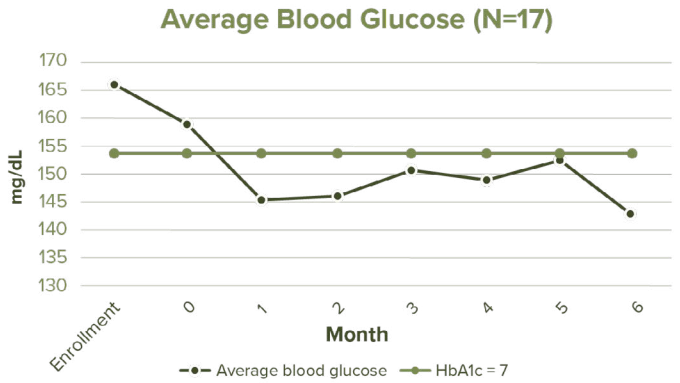
*https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8102467/

The above graph represents improvement across the entire population of patients who were continuously engaged for six months, including those who began with both controlled and uncontrolled blood pressures. Again, the group as a whole demonstrated trend toward normalized blood pressures, meeting HEDIS measures, and dramatically decreasing risk of major cardiovascular event by more than 20%[6] for the entire six month cohort.

[6]Blood Pressure Lowering Treatment Trialists' Collaboration. Pharmacological blood pressure lowering for primary and secondary prevention of cardiovascular disease across different levels of blood pressure: an individual participant-level data meta-analysis. Lancet. 2021 May 1;397(10285):1625-1636. doi: 10.1016/S0140-6736(21)00590-0. Erratum in: Lancet. 2021 May 22;397(10288):1884. doi: 10.1016/S0140-6736(21)01069-2. PMID: 33933205; PMCID: PMC8102467.

Pilot outcomes | 6-month blood glucose trends

Full 6-month patient cohort



N = 17 patients

Average reduction in blood glucose in 6-months:

- **25 mg/dL reduction**

Story highlights:

64-year-old female:
- Active in RPM for 8 months
- Average 26 readings/month
- Final **reduction 105 mg/dL** in blood glucose

69-year-old male:
- Active in RPM for 9 months
- Average 22 readings/month
- Final **reduction 96 mg/dL** in blood glucose

HEDIS blood glucose measures focus on HbA1c (typically a lab test revealing longer term averages) rather than the more volatile and rapidly fluctuating instantaneous blood glucose typically measured via glucometry. The horizontal line in the graph above at 154 mg/dL is broadly accepted as analog when averaged to equate to HbA1c of 7 per HEDIS criteria. Our population of 17 patients was able to achieve HEDIS compliant blood glucose control within the first month of the program, and most importantly, maintain this control for the duration of the program.

Pilot outcomes | Improved health outcomes

- 46 patients had weight scales issued to them as part of the pilot (N = 46)
- **70% of all patients issued weight scales lost weight**

Pilot outcomes | 6-month weight trends

- 31 patients had 6 months of weight readings (N = 31)
  - Patients **lost an average of 4 lbs** within 6 months
  - Patients **lost an average of 8 lbs** throughout total time in the program
    - Average time in program = 8.2 months (range 6 – 11 months)

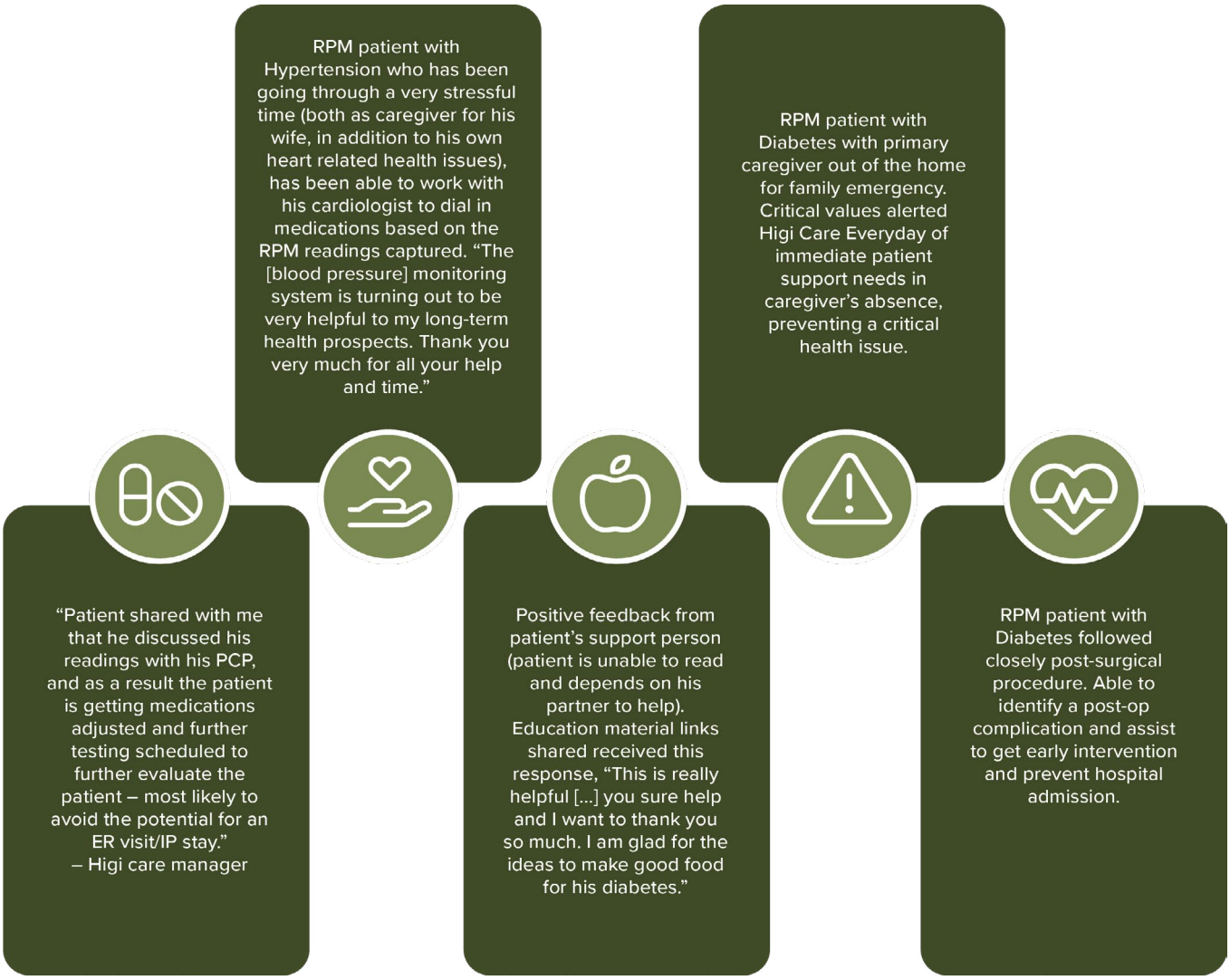
Story highlights:

68-year-old male:
- Active in RPM for 10 months
- At 6 months, weight loss **was 0.7 lbs**; at 10 months weight loss **was 33 lbs**

77-year-old female:
- Active in RPM for 8 months
- At 6 months, weight loss **was 24 lbs;** at 10 months weight loss **was 27 lbs**

Weight loss was not a primary goal for this program but monitoring of weight for purposes of overall health improvement vis-a-vis blood pressure, blood glucose, and overall cardiovascular health was performed. Of the 31 patients who were provided digital scales and participated for a continuous six months, there was an average weight loss of 4 pounds within that time, and those who remained engaged beyond the initial six months, continued to lose weight at a sustainable rate and maintain their newfound healthier habitus.

In addition to the great biometric improvements, a series of patient wins provided encouragement for the patients, their referral sources and the Higi Care Everyday team. Here are some patient wins:



In Summary:

- Patients who were referred to RPM by their PCP or by a care manager from their PCP's office were more than 8.5 times more likely to enroll in the RPM program than patients who were introduced to the RPM program through a letter from their PCP's healthcare organization with a follow up cold call from the RPM vendor. Furthermore, when the PCP or care manager spoke to the referral like they would a referral to a specialist, physical therapist, etc. vs. a mere suggestion, their patients enrolled at higher rates.
- Provider buy-in is essential. Patients enrolled in RPM had higher levels of engagement and satisfaction when their PCPs acknowledged their RPM enrollment and participation efforts. Patients who did not receive any sort of acknowledgment or feedback tied to their RPM participation disenrolled at high rates, even if they had had previously had strong engagement with the program, demonstrating the importance of seamless coordination of care as well as a PCP's support of the RPM program.
- Patients enrolled in RPM who were either homebound, had limited ongoing social interaction with others, and/or had limited support from friends or family were more likely to have a higher level of engagement than patients who got out of the house on a regular basis, had regular and ongoing social interaction with others, and/or who had ongoing support from friends or family.
- The consensus from the care managers at the pilot site organizations was they valued the RPM program implemented through the pilot as it felt like an extension of their team and allowed for a greater subset of their patient population to receive additional healthcare touchpoints outside the patient's regularly scheduled appointments.
- Connectivity remains a barrier for rural Michigan patients, although far less with cellular devices than with Bluetooth enabled devices.
  - A failure rate of <10% was noted during the pilot.
  - Organizations should continue to lobby regional carriers toward enhancing cellular service coverage in their rural areas.
- Lack of a bi-directional EHR integration can be a significant barrier throughout the program flow. From the transmittance of referral information from the PCP office through ongoing communication of alerts and monthly reporting from the RPM provider to the PCP, the manual nature of a non-integrated data exchange solution causes numerous challenges. Challenges include the extra time and manual intervention from the PCP's office and the RPM vendor to ensure it reaches the appropriate parties/destination. Participating PCPs also expressed their desire to have the various reports sent in a more electronic manner that would allow for greater customization of where the reports landed in their organization's EHR. The collective project teams identified the lack of a bi-directional EHR integration as one of the top items that would need to be resolved to ensure the sustainability and scalability of the implemented RPM project beyond the pilot.
- Patient cost share can impact enrollment levels for patients with few financial resources. Out of the 278 patients who declined to participate in the pilot, 8 individuals outlined their reason for decline was due to financial reasons. Although, we have reason to believe that at least a

subset of the other 252 patients who declined the program due to lack of interest may have foreseen a potential out-of-pocket patient responsibility as a barrier and thus provided the answer of “not interested” as a way to not divulge any such details with either their local care team or a member of the RPM vendor team who they were speaking with.

> "I was having some little blood pressure issues and we got that straightened out. My blood pressure has been really good now. [...] We are working on my weight. I had back surgery just a month ago and I am recovering from that too, but [...] everything has been going good." - 69 year old male pilot participant
> *Individual depicted is a model and not the actual patient.*

Part 2: Remote Patient Monitoring (RPM) Playbook for Rural Hospitals

Who Should Use This Playbook?

This playbook is designed to be used by healthcare organizations interested in leveraging RPM, as well as by clinicians and staff, to guide effective implementation of RPM. It is based upon research conducted by the authors and others regarding successful strategies used in rural practices with documented outcomes.

How to Use This Playbook

This playbook is intended to prompt organizations to think about (and through) important aspects of a RPM implementation early on during their planning process, and therefore, we advise at least skimming through all the sections before setting up a program.

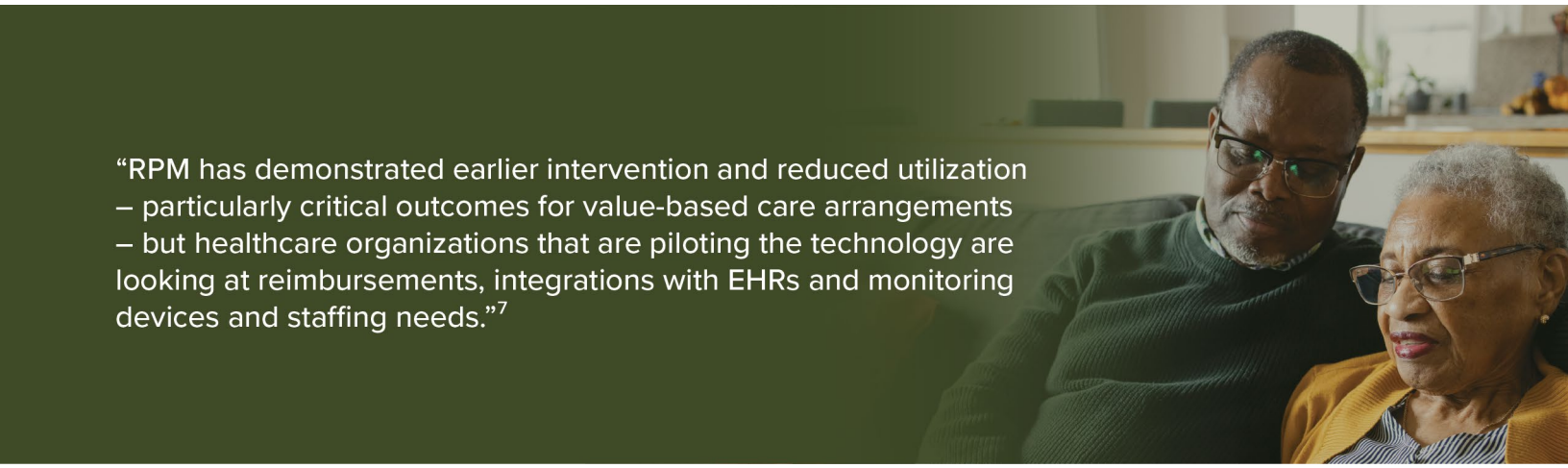
This playbook aims to cater to a broad spectrum of rural healthcare organizations by offering accessible and informative content. As such, it is important to note that this is not a resource written from solely a fee-for-service perspective, or on the flip side, written from a value-based-care only perspective. Users of this playbook are urged to assess the material through their own specific perspectives and circumstances, whether that be from the viewpoint of a Critical Access Hospital (CAH) and/or as a member of an Accountable Care Organization (ACO), or any other relevant entity. Readers are encouraged to carefully consider how the provided information applies directly to their situation or if any adjustments are necessary based on their organization's unique characteristics.

Various assessments and checklists that complement the information provided within the various sections of this playbook can be found in the Appendix. These additional resources may help organizations determine where needs are the greatest and/or where additional consensus building, research, workflow review, and so forth, may be helpful before proceeding with a planned RPM implementation.

Overview of Remote Patient Monitoring

Thinking About Bringing RPM to Your Organization? Where to Start

RPM is a digital tool providers may decide to deploy for their patients who live with chronic or polychronic health conditions or who are living with health complexities such that they believe ongoing monitoring outside of traditional healthcare settings is necessary to improve or stabilize a patient's health. Despite significant interest and alignment on the value of RPM, many organizations face formidable barriers as they attempt execution of the program, especially at scale, using existing resources.



"RPM has demonstrated earlier intervention and reduced utilization – particularly critical outcomes for value-based care arrangements – but healthcare organizations that are piloting the technology are looking at reimbursements, integrations with EHRs and monitoring devices and staffing needs."[7]

When zeroing in on rural health care facilities, particularly Rural Health Clinics (RHCs) and Federally Qualified Health Centers (FQHCs), it is important to note that historically, although these organizations could provide RPM services, it was not until January 1, 2024, that Centers for Medicare & Medicaid Services (CMS), under the CMS-17840F regulations, granted RHCs and FQHCs the ability to bill CMS for RPM services. This has served as a true turning point for many rural providers as it has granted them greater flexibility in how they can go about implementing RPM for their patient populations. And, with RPM identified as a tool to help providers meet important performance metrics underlying value-based care[8], this change in regulations was one long awaited by the greater rural healthcare community.

One of the first decisions that needs to be made by the provider/organization looking to implement RPM, is to decide whether they will implement a solution that is operationalized internally and fully supported by their own resources, or whether they would like to partner with an external organization – an RPM vendor. This decision will impact nearly every single decision that follows, and as such, should not be taken lightly.

[7]Fox, A. (2023, June 5). Reimbursements and EHR integrations are high priorities for RPM, says KLAS report. Retrieved January 2024, from Healthcare IT News: https://www.healthcareitnews.com/news/reimbursements-and-ehr-integrations-are-high-priorities-rpm-says-klas-report
[8]Godla, D. (2021, September 28). Remote Patient Monitoring for Rural Health Clinics. Retrieved January 2024, from ThoroughCare: https://www.thoroughcare.net/blog/pros-cons-remote-patient-monitoring-rural-clinics

Detailed project planning should be done to better understand the resources and efforts needed to integrate and engage with a third-party care management solution. (For more thoughts and considerations related to vendor selection, we encourage you to review the Vendor Selection and Gaging Remote Patient Monitoring Stakeholder Readiness & Potential Challenges sections.)

Key Objectives

RPM has the potential to be an extremely powerful tool that, if done right, can aid organizations in their quest to achieve the Quadruple Aim.

Possible objectives of an organization's RPM program vary for fee-for-service (FFS) and value-based organizations, but most organizations are still engaged in both payment models, in varying degrees.

Overall benefits include:

- New revenue stream and/or cost avoidance for at-risk populations
- Reduced Emergency Department (ED) visits, inpatient admissions, or facility readmissions with potential to add remote monitoring during transitions of care periods
- Improved patient health outcomes, including:
  - Improved quality measures/gap closure
  - Increased patient medication adherence
- Increased access to care
- Identifying health concerns earlier, allowing for proactive clinical intervention
- Decreased clinical burden for primary care teams
- Increased patient satisfaction
- Increased provider satisfaction
- Increased patient empowerment and knowledge about how to best manage their health conditions
- More meaningful provider-patient encounters due to the added layer of insight RPM data provides
- Ability to leverage data to uncover better population health insights
- Improved operational efficiencies for providers/practices
- Improved patient engagement in their own health

Best Practices for Implementing Remote Patient Monitoring

The following sections outline various best practices to aid in:

- The implementation of RPM
- Tracking key results
- How to approach the necessary oversight and governance of your RPM solution

While these sections are intended to bring awareness to the various aspects of a successful RPM program build and operation, *who* will carry out such tasks, procedures, and processes is a question that will be heavily dependent upon the care delivery model your organization chooses to implement for your RPM solution. By having sightlines into the many aspects of a successful RPM program as you evaluate your organization's needs, we hope the playbook will aid your critical evaluation of whether a fully internally supported RPM service or a strategic partner delivered service makes the most sense for your practice/organization to implement.

Staffing

Plan to include the following in your staffing model for a fully functioning RPM program. Alternative models with simple biometric trending might reduce the number of personnel required, with significantly different results:

- **Program superuser** to provide ongoing training and support. This individual should be comfortable with all RPM technology and the platform and be able to troubleshoot and maintain workflows.
- **Non-clinical staff** to support referral handling, appointment scheduling, device provisioning, and similar functions.
- **Licensed care managers** to engage in device education, care plan management, and ongoing coaching and alert handling. Please note, the type of licensing required for a licensed care manager varies depending on the region and specific job responsibilities. It's important to check the specific licensing requirements in the region where the care manager will be practicing.
- **Licensed providers** such as NPs and PAs to provide patient assessment/onboarding, medical necessity documentation, and care plan oversight. A supervising physician is needed to oversee the program.
- **Support teams:** Quality/Audit, RCM, Compliance, Reporting, IT, Marketing

The number of staff you need in each of these roles will be influenced by the size of your organization and the volume of patients you expect to take part in RPM. RPM vendors typical find success with at least one licensed care manger per 125 patients.

Target Patient Population

Start by identifying areas where your organization may benefit from RPM. Consider patient cohorts based on demographics or clinical information, staffing challenges presented by elevated risk or problem prone populations, and where patient access, health needs, and/or satisfaction are suffering.

- In value-based care models, identify high risk patients using risk stratification tools or targeted chronic condition diagnoses. In fee-for-service models, focus on the above-mentioned criteria and consider ability to cover program reimbursable expenses.
- Solicit feedback from clinical and operational staff to identify pain points and opportunities to enhance care for patients living with chronic conditions.
- Utilize patient complaints and patient satisfaction data to identify patient pain points and areas for improvement. Consider the full diversity of your patient population as you assess the population and responses.
- Prioritize pain points and improvement opportunities based on severity of need. Consider how that prioritized list fits into the goals of the larger organization.
- Identify a department or provider champion where the greatest value to the organization and patients served lies.
- Envision expected outcomes of an RPM program and specified populations. Research industry outcomes for specific patient populations (objective and subjective results).

Patient Outreach & Enrollment

RPM requires ongoing commitment and engagement from the patient. Program results are optimized when the patient is at the center of the process -- from device set-up to goal setting.

- Ensure the patient's PCP and broader care team are ready and willing to encourage the patient to participate. Increased participation has been seen when providers handle the conversation in the same manner as they would a formal referral to another service (such as physical therapy, occupational therapy, or home health).
- Ensure adequate time to educate patients about the program, address their questions, set expectations for program participation and, most importantly, identify their personal goals for their health.
- Develop patient training materials to support a wide variety of learning styles. Especially with the program's technological aspects, provide written and visual support materials and an FAQ for anticipated questions (both from patients and providers). For potential questions to address in an FAQ, please refer to the 'Examples of Frequently Asked Questions about a Remote Patient Monitoring Program' in the Appendix.
- Consider language and literacy barriers (including technical literacy) when developing patient-facing materials The more straightforward the messaging, the better. Be sure to explain terms and concepts not readily understood. Take your target audience, their health literacy, culture, language, attitudes, and perceptions into consideration when crafting such materials. If the RPM program is accessible to Medicare and/or Medicaid

patients, follow CMS' and the Department of Healthcare Services (DHCS) language readability requirements; language must be at no higher than an 8th grade reading level.

- Develop a plan for supporting patients who have issues with RPM access or use. Distinct categories of barriers may include:
  - Technology barriers
  - Technical literacy barriers
  - Financial barriers
- To think through additional barriers and possible solutions, please refer to the 'Remote Patient Monitoring Common Barriers & Addressable Solutions Chart' within the Appendix.
- Inform the patient about the role of RPM as a complement to primary care. Ensure the patient understands RPM serves to enhance the care they receive from their primary care team rather than replace it. Describe to patients how RPM is a tool PCP teams and specialists can deploy to help them further tailor the patient's specific care plan by providing them with additional insight about how the patient is doing in between of their regularly scheduled PCP visits and clearly communicate the coordination of care that occurs. Highlight the goal of ongoing communication with the primary care team.
- Approach the patient care plan holistically by developing a resource playbook to connect the patient to needed internal and external resources identified during patient formal assessments or ongoing interactions. These should include transportation, nutrition, medication support, mental health resources, and financial resources.
- Help patients understand the difference between technical issues and clinical issues.
- Provide direct vendor contact information regarding technical issues, if appropriate.

Potential avenues of patient outreach include:

Asset	Notes & Key Messaging
Letter to eligible patients	• Introduces offering. • Assures patients that RPM is aligned and additive to their established care and communicate solution overview, process, and value. • For patient populations who are less tech savvy, distributing information via traditional mailing services (USPS) might make the most sense. For more digitally engaged patient populations, the letter could be distributed via an email or patient portal notification.
Brochure	• Visually driven overview with simple graphics to explain the process of participating.

Waiting room & exam room signage	• Attention grabbing visual to spur dialogue between patient and provider during appointment.
Frequently Asked Questions (FAQ) material	• Provide answers to common questions that patients have about your RPM service. Promotes self-service support and reduces the workload for your frontline teams. • Aims to make essential information easily accessible to patients in an efficient and clear manner. A tool to instill trust and confidence in the program.
Patient "take away" (e.g., magnet, keychain, etc.)	• A small physical token a patient can take away from a conversation about RPM to further their excitement in the program, engagement, etc. • Possible messaging can include contact information to enroll or reminders to take their vitals.
Direct-to-voicemail provider recorded message & text message	• A quick hit introduction to your RPM program with instructions on who to contact/how to contact to learn more. • An easy to scale mass communication is a direct-to-voicemail recorded message that is delivered directly to an individual's voicemail inbox without their phone ringing. Leveraging the voice of a well-respected provider from your organization is one way to engage patients. • Text messages are also an easy to scale way to communicate with patients regarding a new program such as RPM.
In-person blood pressure checks within the community (meeting your targeted patient population where they are)	• Finding ways to physically connect with your targeted patient population within the local community is one way to help spread awareness of your RPM program. By doing a free blood-pressure check, you attract patients who want to check-in on their health and may be a good fit for RPM. Having print materials available at such an event is key. • A way to meet patients where they are, similarly to how RPM provides access to healthcare for patients where they are.
Organization newsletter, blog post, etc.	• Leveraging longtime established communication avenues to provide a high-level solution overview with a focus on value to patients.

Social media posts	• These visually driven, quick-hit messages are a way to not only gain interest in RPM during the implementation of your program but can also be leveraged throughout the year to reengage patients and reach new patients. • Aligning the messaging of your post to the current season, upcoming holidays, community events and initiatives, and sharing success stories is a way to creatively capture attention.
Press release	• A way to showcase your organization and the program. • A way to leverage quotes from respected providers and community members to build trust and interest.
Local media advertisements	• Where do your patients get their news? Newspaper, radio, local television news, and local magazines are possible communication channels to explore. • Leverage these established communication channels to drive awareness of your RPM offering.

Provider Engagement

Provider engagement is crucial to the success of any RPM program. Providers can make or break the program in terms of referral volumes, patient engagement, project funding, or growth. To secure optimal provider engagement please ensure the following:

Clear Communication & Training:

- Ensure clear communication about the goals and benefits of the RPM program (both from a patient and provider perspective).
- Provide comprehensive training to healthcare providers on the program, monitoring devices, and associated data.
- Leverage your existing communication mechanisms for implementing your provider-focused communications and training. By working RPM communications into already established and tried and true communication avenues, the focus on RPM can become ingratiated into the fabric of the organization, leading to increased chances of provider adoption, future growth, and sustainability.

Integration with Organizational Workflows:

- Integrate RPM seamlessly into existing workflows to minimize disruptions to healthcare providers' routines and maximize provider support and buy-in.

- Ensure that the data collected fits into the EHR system for easy access.

User-Friendly Technology:

- Choose user-friendly RPM devices and platforms to encourage regular use by both RPM teams and patients.
- Offer technical support to address any issues promptly.

Clinical Relevance:

- Ensure that the data collected through RPM is vetted and parsed to assist providers in identifying clinically relevant and actionable next steps.
- Provide alerts and notifications for critical issues that require immediate attention.

Patient Selection & Onboarding:

Carefully select patients who will benefit the most from RPM. Note that although a patient may benefit from RPM, if they are unwilling to actively engage in the program, enrollment is not recommended as it significantly reduces program effectiveness. If a patient has a history of non-compliance and they do not appear to be fully bought in to the program or they state they do not think they will be able to check their biometric readings consistently (at least 16 days each month), RPM enrollment is not recommended. Regular and sustained participation in the program is paramount to achieving the desired outcomes an RPM program can facilitate. Enrolling a patient who is not willing or committed to taking their biometric readings and connecting with RPM clinicians can result in several suboptimal results including:

- Waste:
  - Sending the patient a device that is rarely or never used
  - RPM clinician and administrator time attempting to track down and engage with the patient to no avail
  - Not getting enough data to be able to tailor the patient's care based on their baseline biometric levels
  - Not getting reimbursed for time/services rendered due to missing the necessary billing thresholds
- RPM enrollment can lead to a false sense of security whereby patients incorrectly assume all program benefits can be obtained without their effort or their ongoing engagement.

Implement effective onboarding processes for both providers and patients to familiarize them with the program and ensure they understand their role in the program.

Incentives & Recognition:

- If feasible and approved by regulatory compliance, offer incentives for healthcare providers to actively participate in the RPM program.
- Recognize and acknowledge the efforts of providers who excel in using remote monitoring for patient care. Let them serve as champions and spokespersons for your program.

Data Privacy & Security:

- Implement robust data privacy and security measures to ensure that patient information is protected.
- Address any concerns healthcare providers may have about the security of patient data.

Feedback Mechanism:

Establish a feedback mechanism where providers can provide input on the RPM program's effectiveness. Possible ways to facilitate such feedback include:

- During regularly scheduled meetings with appropriate providers, carve out time on the agenda for open discussion regarding the providers' experience with the RPM program. Be prepared with prompts to encourage discussion such as:
  - What is working well for you?
  - Are there any pain points for you?
  - Does anyone have a recent experience with the RPM program that allowed your team to better serve our patients?
  - Do you have any questions?
- Focus groups
- One-on-one interviews
- Quick hit survey or feedback form
- Assign a specific team member—such as the physician champion or the business owner/ project leader—to serve as the primary contact for providers to submit their feedback

Use feedback to continuously improve, refine, and optimize the program.

Outcome Measurement:

- Define clear metrics to measure the outcomes of the RPM program.
- Share success stories and positive outcomes with providers to highlight the program's impact.

Regulatory Compliance:

- Ensure that the RPM program complies with relevant healthcare regulations and standards.
- Keep providers informed about any regulatory changes affecting the program.

By addressing these factors, healthcare providers are more likely to actively engage in a remote patient monitoring program, leading to improved patient outcomes and better overall healthcare delivery.

Vendor Selection

If choosing to partner with an external organization, select a vendor whose offerings align with your organizational philosophy, goals and/or gaps. This will help to ensure you have partners willing to actively support implementation, using their expertise to reduce barriers and achieve common goals. Research available vendors who meet your needs for devices, a care management platform, EHR integration, and staffing/support. Evaluation can include the following criteria:

- **Business:** Use detailed criteria to clearly delineate business model, return on investment (ROI) or return on health data, financial viability, cost of service, and commitment to common goals.
- **Customer Service:** Planning support, implementation support, ongoing clinical support, patient support and training, data sharing.
- **Technology:** Ease and cost of EHR or other systems integration, connectivity, patient access to data and support, updates and maintenance process, device ordering and procurement; flexibility/ability to customize.
- **Data Security/Privacy:** HIPAA/HITECH, SOC2/HITRUST, liability structure, penetration testing, user authentication method, data use policies.
- **Usability (Both Patient & Provider):** Ease of use, data accuracy, dashboard or worklist capabilities, multi-disease state capability.
- **Business/Clinical Validation:** Case studies or testimonials, references, previous results, ability to deliver on your organizational/program outcomes and goals.
- **Cultural Fit:** You know your patients best. When selecting vendors who will directly interact with your patients, ensure you are selecting vendors who understand (or who are willing to learn about) the values and culture of the region in which patients reside. If your patients do not feel understood and respected by the vendor you partner with, their willingness to fully participate in the program will be compromised and the ability to reap the full benefits of RPM will not be possible.

For additional items to take into consideration specific to selecting the most appropriate RPM device vendor for your practice/organization, please see the 'Selecting a Remote Patient Monitoring Device Vendor Checklist' in the Appendix.

Systems Integration & Workflow Design

Successful integration and well-planned workflows are key to adoption, scalability, and team/patient satisfaction. As in all projects, beginning with the end in mind is key, but there may be a need for phasing specific work based on budgeting, resources, and/or competing priorities. Keep these items in mind as you plan for systems integration and new workflows:

- Begin with an ideal workflow for each of these key components:
  - Patient selection and referral management
  - Patient onboarding (including medical and insurance eligibility verification)
  - Medical necessity documentation and device ordering
  - Device procurement
  - Patient education and support, including inbound calls from patients

    - Care plan development, biometric data review policies and procedures
    - Alert response including notification handling, intervention protocols, and emergency management
    - Care team and patient coordination
    - Data sharing
    - Reports/dashboards and data sources
    - Billing and coding
- Consider the systems and hand-offs required for each of the above workflows and between workflows/work groups. Solicit input/gain buy-in from the perspective of patients, providers, care givers, and each operational stakeholder.
- EHR integration is critical to long-term success based on simplification of workflows, staff satisfaction, coordination of care, and overall program efficiency. If not immediately feasible:
    - Have a specific plan for how and when this integration will happen.
    - Prioritize and schedule phases of integration to ensure key functionality is available on a timely basis, even if full integration lags.
- Complex systems integrations may require use of middleware or a third-party data integration vendor to connect RPM device data with the RPM/care management platform and/or EHR.

Clinical Care Coordination

RPM data can be a valuable tool in care coordination -- facilitating collaboration among care managers, PCPs, and specialists. Here's how RPM data can be utilized in care coordination:

Real-time Monitoring:

- Care managers can monitor vital signs, medication adherence, and other relevant metrics remotely.
- Immediate access to real-time data allows for timely interventions and adjustments to the care plan.

Enhanced Communication:

- RPM data serves as a basis for more informed and efficient communication among care team members.
- Care managers can share relevant patient information with PCPs and specialists, fostering better understanding of the patient's health status.

Customized Care Plans:

- The collected RPM data helps care managers and providers tailor care plans to the specific needs of each patient.
- PCPs can use the data to adjust medications, while specialists can make more informed decisions about treatment plans.

Early Detection of Issues:

- RPM data allows for the early detection of potential health issues or deteriorations in a patient's condition.
- Care managers can alert PCPs and specialists to emerging concerns, enabling proactive management and preventive measures.

Reduced Hospital Admissions:

- By closely monitoring patients through RPM, care managers can intervene early, potentially preventing the need for hospital admissions.
- PCPs can receive alerts and collaborate with specialists to address issues before they escalate to the need for a higher level of care.

Streamlined Workflow:

- Integrating RPM data into EHRs streamlines the workflow for care managers, PCPs, and specialists.
- The seamless exchange of information enhances coordination and reduces the risk of duplicated efforts.

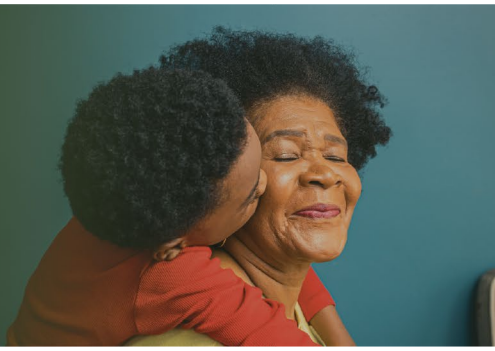
Patient Empowerment:

- RPM empowers patients to actively participate in their care by providing them with insights into their health metrics.
- Care managers can use the data to educate patients and encourage self-management, leading to improved health outcomes.

Data-driven Decision Making:

- PCPs and specialists can use RPM data to make evidence-based decisions.
- Trends and patterns in the data may guide adjustments to treatment plans, leading to more effective and personalized care.

In summary, RPM data plays a crucial role in care coordination by providing real-time information, improving communication among care team members, and enabling proactive and personalized care for patients.



Social Drivers of Health

Social Drivers of Health (SDoH) quality measures are increasingly recognized as critical factors in assessing healthcare outcomes and addressing health disparities. This is especially true of patients living with multiple chronic conditions, such as those appropriate for RPM. Along with culturally competent care that recognizes patients' diverse backgrounds, awareness of social drivers of health is key to driving positive health outcomes. These SDoH quality measures focus on the non-clinical factors that influence individuals' health and well-being, such as socioeconomic status, education, environment, and access to resources. Quality care for RPM includes a holistic approach, gathering and addressing both clinical and social needs of enrolled patients. These should include:

Screening & Assessment:

- RPM programs can implement screening protocols to identify key social drivers that may influence a patient's health during onboarding and/or care plan creation.
- This may involve assessing patients' socioeconomic status, housing stability, utility needs, food insecurity, transportation access, and social support networks.

Data Collection & Integration:

- RPM programs can establish quality measures related to the collection and integration of SDoH data into EHRs and other health information systems.
- This includes using standardized screening tools and documenting patients' social needs and resources.

Care Coordination:

- RPM programs can develop quality measures focused on care coordination efforts aimed at addressing social drivers.
- This may involve facilitating referrals to community-based organizations, social services agencies, and other resources that can help meet patients' social needs.

Patient Education & Empowerment:

- RPM programs can develop quality measures focused on patient education and empowerment related to social drivers.
- This may include providing patients with information about available resources, self-management strategies, and strategies for navigating social services.

Outcome Monitoring:

- RPM programs can monitor outcomes related to social drivers, such as improvements in housing stability, food security, transportation access, and social support.
- This involves tracking relevant metrics over time and adjusting interventions as needed to optimize outcomes.

Overall, SDoH quality measures play a crucial role in promoting health equity, improving healthcare outcomes, and addressing the underlying social factors that contribute to health disparities. In fact, mandatory copays can serve as financial barriers to participation for a population most in need of the service. Addressing access to financial support programs or untapped benefits can offset this financial barrier. Examples include LiHEAP (Low Income Home Energy Assistance Program), SNAP, Medicaid, WIC or other local/state or federal assistance programs that patients may be eligible for. By incorporating these and other social support measures into RPM programs, payers and providers can work together to create more comprehensive and effective healthcare delivery systems.

Billing & Reimbursement Basics

As with any service rendered to patients, when working in a fee-for-service setting, it is crucial to understand the reimbursement opportunities that are associated with the care delivered. Understanding billing guidelines is essential for ensuring accurate billing, maintaining compliance with regulatory requirements, optimizing reimbursement, preventing fraud and abuse, and improving overall revenue cycle management.

Please note that the billing and reimbursement items outlined within this playbook are provided as a basic reference and should not be the only resource used when establishing your organization's RPM billing practices. Organizations should do a thorough review of the current CMS Physician Fee Schedule final rule at the very start of their RPM implementation planning to ensure they understand the most current billing rules and regulations associated with RPM.

Those looking to file claims for RPM services should work with a billing expert. Although CPT & Level II HCPCS codes are used nationwide in the United States, there may be variations in how billing codes are used or interpreted based on state-specific regulations or payer policies. Individual organizations also have different comfort levels and interpretations of billing rules and regulations, and as such, organizations should take the time needed to do a thorough deep dive of RPM billing codes available to their type of organization with trusted billing experts intimately familiar with their organization and its revenue cycle management practices and policies. Lastly, all organizations should follow the recommendations of their claims editing and billing department/tools since this guide is informational, and not to be construed as billing advice.

Reimbursement rates and coverage for RPM services may vary depending on the payer (e.g., Medicare, Medicaid, private insurance, etc.). CPT codes associated with RPM continue to evolve; the information contained within this section is based upon CMS' 2024 Physician Fee Schedule final rule. (To aid in your understanding of the CMS 2024 Physician Fee Schedule final rule, a helpful summary of the final rule can be found here.)

Like with all healthcare billing, it is important to use RPM billing codes accurately and to submit them to payers in a timely fashion. Due to RPM billing complexities, often, providers choose to submit all RPM-related claims together by calendar month. Beyond understanding the intricacies of the RPM billing codes (outlined later in this section), there are several overarching rules that need to be understood before diving into the exact details of the RPM billing codes themselves:

- **Only one provider can bill Medicare per patient for RPM services at a time:** Only one provider can bill for RPM services rendered to a patient once per 30-day period. In addition, it is important to note that RPM and remote therapeutic monitoring (RTM) cannot be billed concurrently.
- **Only "established patients" are eligible for RPM:** For patients to receive RPM services, the RPM billing practitioner first must complete a service (most commonly a new patient Evaluation and Management (E/M) visit) in which the billing practitioner collects relevant information about the patient and establishes a treatment plan.
- **RPM can only be billed when medically necessary for a patient:** RPM needs to be considered reasonable and appropriate for the diagnosis or treatment of a patient's medical condition, based on accepted standards of medical practice. Determining medical necessity is typically based on clinical judgment and may vary depending on the specific circumstances of each patient.
- **RPM can be billed concurrently with other services:** Although RPM and RTM cannot be billed concurrently, CMS does allow for providers to bill RPM or RTM (but not both) alongside other appropriate care management services including, Chronic Care Management (CCM), Transitional Care Management (TCM), Behavioral Health Integration (BHI), Principal Care Management (PCM), and Chronic Pain Management (CPM). However, the time and effort involved in care provision for these services cannot be counted twice.

FQHC & RHC Specific Billing Information:

With the maturation of RPM billing codes, as of January 1, 2024, FQHCs and RHCs can now bill for RPM services. This is a very welcome change for rural communities throughout the country, as prior to 2024, if an FQHC or RHC wanted to provide RPM services, they had to work with an external RPM vendor to do so if they wanted the services to be billed. Now that the billing barrier has been removed, if desired, FQHCs and RHCs can implement a fully internal RPM program and receive payment for RPM outside of FQHC per-visit payments and RHC all-inclusive rates.

The HCPCS code available for use by FQHCs and RHCs in 2024 is:

G0511: time-based code

- A minimum of 20 minutes per month of non-face-to-face RMP services
- Can be billed multiple times per month if appropriate (for example, if 40-minutes of non-face-to-face RPM services are rendered to a patient it can be billed twice, or in conjunction with a chronic care management program)

Although the general management code, HCPCS G0511, has been expanded to include RPM billing, please note RPM services cannot be billed if duplicative of services already paid for under the general care

management code for an episode of care in each calendar month. FQHCs and RHCs should prioritize careful attention to detail in their billing practices to ensure compliance.

Unfortunately, as of 2024, FQHCs and RHCs are not eligible to claim device-based codes like fee-for-service providers. As of the publication of CMS' 2024 Physician Fee Schedule final rule that took effect January 1, 2024, HCPCS G0511 is the only billing code available to FQHCs and RHCs to use in relation to RPM services rendered.

The changes in Medicare regulations made effective January 1, 2024 provide opportunities to address the staffing and resourcing barriers faced by rural communities. In addition to encouraging the use of RPM, the changes may help bridge healthcare access issues and improve patient chronic care outcomes in underserved communities. RPM's ease of use and patient technical literacy barriers provide a potential for Community Health Worker (CHW) training and support to encourage adoption, support technical barriers and thereby expand the patient population that can be served by the technology.

Another special consideration is available if your organization is engaged as an Accountable Care Organization (ACO), such as a Medicare Shared Savings Program (MSSP). Consult with your ACO partner to determine specific recommendations relevant to RPM.

Fee-for-Service Specific Billing Information:

Within the fee-for-service environment, there are RPM CPT codes that pay for device setup, collection, interpretation, and processing of remote physiological data. These CPT codes are broken into two categories:

1. Device-based RPM CPT codes (99453 & 99454)
2. Time-based (treatment management services) RPM CPT codes (99457 & 99458)

These CPT codes, available for use by fee-for-service providers in 2024 include:

99453: device-based code

- Initial set-up/configuration & patient education on RPM provider-supplied device (one-time fee/device)
- Cannot be billed more than once per 30-days per patient (If a patient receives two devices within the same calendar month, only one device can be billed for in that timeframe. The second device would be billable in the subsequent month)
- To bill for 99453, a patient needs to transmit a minimum of 16 days of readings from a provider-supplied device (readings do not have to be within one calendar month nor do they need to be from 16 consecutive days)

99454: device-based code

- For monthly monitoring of the provider-supplied RPM device(s)
- To bill for 99454, a patient must take at least 16 daily device readings within a 30-day period (meaning there need to be at least 16 distinct days with a reading; if a patient has multiple devices,

the necessary 16 distinct days of readings can be a combination of readings from the patient's provider-supplied RPM devices)

- Can only be billed once per patient every 30 days, and only when at least 16 days of data have been collected (no matter the number of devices a patient has)

99457: time-based code

- Remote patient monitoring treatment management services requiring interactive communication with the patient/caregiver during the month (a 30-day period)
- 20 minutes per month of non-face-to-face RMP services done by a certified resource or higher
- Calendar month code

99458: time-based code

- An add-on code to 99457 (99458 can only be billed as a follow-up to 99457 -- not a standalone CPT code)
- The first 20 minutes of interactive communication is reported using CPT 99457 and each additional 20 minutes is reported using CPT code 99458
- Calendar month code

One additional CPT code that some RPM providers may choose to leverage instead of the RPM-specific codes outlined above is:

99091: time-based code

- Usually ineligible for use in combination with any RPM-specific CPT codes
- At least 30 minutes of clinical time in a calendar month for the time it takes a physician or qualified healthcare provider (QHP) to gather, interpret, and process data that a patient transmits
- Requires at least one communication between physician or QHP and patient (which can occur via a phone call, video visit, email exchange, but not text message), whereby medical management or monitoring advising occurs

Note that the cost of purchasing multiple RPM devices is not covered by any of the above CPT codes, so organizations should consider this when establishing the return on investment of their RPM program.

Return on Investment (ROI) Logic

Financial analysis for RPM return on investment (ROI) involves evaluating various inputs to determine the financial viability and benefits of implementing RPM in a healthcare setting. By analyzing the ROI, an organization can weigh the benefits against the costs, foresee potential risks, and make strategic choices that align with the organization's goals. This process begins with a thorough assessment of the initial investment, projected returns, and the timeframe over which these returns will be realized.

Below are key inputs to consider for RPM ROI analysis:

1. Initial Investment Costs:

- Hardware Costs: Costs for purchasing RPM devices (e.g., blood pressure monitors, glucose meters, weight scales, etc.).
- Software Costs: Costs for RPM platform subscriptions, software licenses, and integration with existing health IT systems.
- Installation & Setup Costs: Expenses for deploying and setting up RPM systems, including IT infrastructure.
- Training Costs: Costs associated with training healthcare providers and patients on the use of RPM technology.

2. Operational Costs:

- Maintenance & Support: Ongoing costs for maintaining RPM devices and software, including technical support.
- Data Management: Costs for data storage, management, and analysis, including potential fees for cloud services.
- Staffing Costs: Expenses for additional staff or reallocation of current staff to manage RPM programs, including monitoring, data analysis, and patient communication.

3. Revenue & Reimbursement:

- Reimbursement Rates: Revenue from insurance reimbursements for RPM services, including Medicare and private payers. This includes understanding billing codes and reimbursement policies.
- Patient Fees: Direct fees charged to patients for RPM services, if applicable.

4. Cost Savings & Efficiency Gains:

- Reduced Hospital Admissions: Savings from reduced hospital admissions and readmissions due to improved patient monitoring and early intervention.
- Emergency Department (ED) Visits: Reduction in ED visits through proactive health management.
- Improved Chronic Disease Management: Enhanced management of chronic conditions, leading to fewer complications and healthcare utilization.
- Operational Efficiency: Improved efficiency in healthcare delivery, reducing administrative burdens and optimizing resource allocation.

5. Patient Outcomes & Satisfaction:

- Clinical Outcomes: Improved patient health outcomes, which can indirectly lead to cost savings and better reimbursement rates through value-based care initiatives.
- Patient Retention: Higher patient satisfaction and engagement, leading to improved retention rates and potential growth in patient base.

6. Intangible Benefits:

- Brand & Reputation: Enhanced reputation as an innovative healthcare provider, potentially attracting more patients and partnerships.
- Regulatory Compliance: Alignment with regulatory requirements and initiatives promoting digital health and remote monitoring.

7. Time Frame for Analysis:

- Short-term: Immediate costs and benefits, typically within the first year of implementation.
- Long-term: Extended analysis over multiple years to capture ongoing operational costs, revenue streams, and long-term benefits.

8. Key Performance Indicators (KPIs):

- Patient Enrollment Rates: Number of patients enrolled in RPM programs.
- Utilization Rates: Frequency and consistency of RPM device usage by patients.
- Clinical Metrics: Health metrics improvement (e.g., blood pressure control, glucose levels).
- Financial Metrics: ROI, cost per patient, revenue per patient, and overall program profitability.

Example Calculation

1. Initial Costs:

- Hardware: $50,000
- Software: $20,000
- Installation and Setup: $10,000
- Training: $5,000

Total Initial Costs: $85,000

2. Annual Operational Costs:

- Maintenance: $10,000
- Data Management: $5,000
- Staffing: $20,000

Total Annual Operational Costs: $35,000

3. Annual Revenue:

- Reimbursements: $60,000
- Patient Fees: $10,000

Total Annual Revenue: $70,000

4. Annual Cost Savings:

- Reduced Admissions: $30,000
- Fewer ED Visits: $20,000
- Improved Chronic Disease Management: $10,000

Total Annual Cost Savings: $60,000

5. Annual ROI Calculation:

- Total Annual Benefits (Revenue + Cost Savings): $130,000
- Total Annual Costs (Operational Costs): $35,000

Net Annual Benefits: $130,000 - $35,000 = $95,000

ROI: Net Annual Benefits / Total Initial Costs = $95,000 / $85,000 = 1.12 (or 112%)

Financial analysis for RPM ROI requires a comprehensive evaluation of both costs and benefits, including direct financial metrics and indirect gains such as improved patient outcomes and operational efficiencies. By carefully considering these inputs, healthcare organizations can make informed decisions about the implementation and scalability of RPM programs.

This same exercise can be used to assess whether to partner with a third-party vendor or build a program internally. Consideration should be given to current human resource recruitment and retention patterns for all parts of the organization required to build and maintain a successful RPM program including non-clinical support staff, care management, IT, contracting, device procurement and provisioning, revenue cycle, reporting, quality assurance, compliance, and vendor management.

Special Considerations

Clinicians providing care to patients who "snowbird" (reside temporarily in another state, typically during winter months) must navigate a variety of licensing regulations and legal requirements. Here are the general rules and considerations:

1. State Licensing Requirements:

- Primary State License: Clinicians must have a valid license in their primary state of practice.
- Temporary State License: Clinicians may need to obtain a temporary or secondary license in the state where the patient temporarily resides if they intend to provide care for the patient(s) while locate there.
  - In effect, clinicians need to be licensed in the state where the patient is located at the time the care is provided.

2. Interstate Medical Licensure Compact (IMLC):

- Eligibility: Physicians who meet specific eligibility criteria can apply for expedited licensure in other member states. This allows easier access to practice across state lines.
- Member States: Not all states are members, and this organization is primarily comprised of midwestern and southern states with adjacent borders. Clinicians should verify if both the primary and secondary states participate in the IMLC.

3. Telehealth Regulations:

- Originating Site: Regulations often depend on the location of the patient (originating site) rather than the clinician.
- State-Specific Laws: Each state has its own laws governing telehealth, including requirements for licensure, patient consent, and the standard of care. Some states require video visits, others require audio, and some allow a simple text message/SMS or asynchronous communication such as email.
- Interstate Telehealth Agreements: Some states have agreements that allow clinicians to provide telehealth services across state lines without obtaining additional licenses.

4. Medicare & Medicaid Considerations:

- Medicare: Clinicians must comply with Medicare regulations, which may have specific requirements for telehealth services and interstate practice.
- Medicaid: State Medicaid programs have their own rules, which vary by state. Clinicians must adhere to the requirements of the patient's temporary resident state.

5. Insurance & Liability:

- Malpractice Insurance: Clinicians should ensure their malpractice insurance covers services provided in multiple states.
- Liability: Practicing without appropriate licensure can result in legal consequences and professional liability issues.

6. Professional Guidelines & Best Practices:

- Documentation: Maintain thorough documentation of all care provided, including the patient's location during treatment.
- Patient Consent: Obtain informed consent from patients, including discussions about the implications of receiving care across state lines.
- Continuity of Care: Ensure that the patient's care is continuous and coordinated, regardless of their location.

7. State-Specific Rules & Exceptions:

- Temporary Practice Provisions: Some states allow limited temporary practice without full licensure for specific purposes, such as follow-up care.
- Emergency Provisions: During emergencies or public health crises, states may relax licensure requirements to facilitate care.

In summary, clinicians must be proactive in understanding and complying with the licensing and regulatory requirements of both their primary and secondary states of practice when caring for snowbird patients or those who may simply be travelling briefly out-of-state. This often involves obtaining additional licenses, understanding telehealth laws, ensuring appropriate insurance coverage, and maintaining high standards of care and documentation.

Best Practices for Measuring Remote Patient Monitoring Success

Reporting & Monitoring

Reporting and success measures are crucial in evaluating the effectiveness of RPM programs. Here are key reporting metrics and success measures that are important in assessing the impact of RPM initiatives:

Patient Engagement:

- Metric: Measure the level of patient engagement with the RPM devices and data.
- Success Measure: Increased patient activation, adherence to monitoring protocols, and active participation in their own care.

Health Outcomes:

- Metric: Monitor changes in key health indicators (e.g., blood pressure, glucose levels, etc.) over time.
- Success Measure: Improved health outcomes, reduced hospitalizations, and better disease management.

Adherence to Care Plans:

- Metric: Assess how well patients adhere to care plans based on RPM data.
- Success Measure: Higher adherence rates leading to improved health and reduced complications.

Reduction in Emergency Department Visits:

- Metric: Track the frequency of emergency department visits related to the monitored conditions for patients enrolled in RPM programs.
- Success Measure: Decreased emergency department use, indicating effective prevention of unscheduled care.

Hospital Readmission Rates:

- Metric: Monitor readmission rates related to the monitored conditions for patients enrolled in RPM programs.
- Success Measure: Reduced hospital readmissions, showing the effectiveness of continuous monitoring and early intervention.

Care Team Efficiency:

- Metric: Evaluate the efficiency of care teams in responding to RPM data.
- Success Measure: Timely interventions, reduced response times, and streamlined workflows among care managers, PCPs, and specialists.

Patient Satisfaction:

- Metric: Collect feedback from patients regarding their experience with RPM.
- Success Measure: High patient satisfaction scores, indicating a positive patient experience and acceptance of RPM as part of their care.

Cost Savings:

- Metric: Analyze the cost-effectiveness of RPM programs compared to traditional care models.
- Success Measure: Demonstrated cost savings through reduced hospitalizations, emergency visits, and overall health expenses.

Data Security & Privacy Compliance:

- Metric: Ensure compliance with data security and privacy regulations.
- Success Measure: Adherence to regulatory standards, protecting patient information, and ensuring the secure transmission of RPM data.

Integration with Electronic Health Records (EHRs):

- Metric: Evaluate the seamless integration of RPM data into EHR systems.
- Success Measure: Efficient information exchange, improved coordination, and accessibility of data for care providers.

Population Health Impact:

- Metric: Assess the overall impact on the health of the targeted population.
- Success Measure: Improved population health outcomes, reduced healthcare disparities, and enhanced community well-being.

Regularly monitoring these metrics and success measures allows healthcare organizations to continually optimize RPM programs, ensuring they deliver value in terms of patient outcomes and experience, cost-effectiveness, and overall quality of care.

Best Practices for Ongoing Remote Patient Monitoring Governance

Clinical/Operations Meetings

A Clinical/Operations team meeting for a RPM program typically involves a multidisciplinary group of healthcare professionals coming together to discuss various aspects of patient care, program operations, and workflow optimization. The primary goals of such meetings are to ensure effective coordination, communication, and collaboration among team members to deliver high-quality care to patients enrolled in the RPM program. Here's an outline of the key components and goals of such a meeting:

Attendance & Introductions:

- Begin the meeting by taking attendance and allowing each team member to introduce themselves, especially if there are new members or guests present.
- Foster a sense of teamwork and inclusion.
- Highlight any outstanding work, including great teamwork.

Review of Patient Cases:

- Discuss the status of patients currently enrolled in the RPM program.
- Include reviewing vital signs data, patient-reported symptoms, medication adherence, and any other relevant information specific to a patient plan of care.
- Identify any patients who require immediate attention or intervention.
- Highlight any key successes with specific patients.

Clinical Updates & Care Plans:

- Provide updates on care plan modifications or areas of opportunity.
- Focus on providing efficiency and consistency in care plan creation, review, and updates.
- Discuss status of interventions and goals that occur monthly for effective patient care.

Operational Updates:

- Operations team members provide updates on program logistics, including device provisioning, shipping, inventory management, and technical support.
- Address any challenges or issues encountered and brainstorm solutions to improve operational efficiency.

Technology & Data Review:

- Evaluate the performance of RPM technology platforms, data accuracy, and system reliability.

- Discuss any technical issues or enhancements needed to streamline data collection, analysis, and reporting processes.

Quality Assurance & Compliance:

- Review adherence to clinical protocols, regulatory requirements, and quality standards.
- Discuss strategies to ensure compliance with privacy regulations (e.g., HIPAA (Health Insurance Portability and Accountability)) and maintain data security.
- Review Patient Satisfaction scores or other feedback to celebrate success or identify areas for improvement.

Patient Engagement & Education:

- Discuss strategies to enhance patient engagement, education, and empowerment.
- Share best practices for communicating with patients, addressing their concerns, and promoting self-management skills.
- Seek support from fellow team members as needed.

Performance Metrics & Outcomes Review:

- Analyze key performance indicators (KPIs) and outcomes data to assess the effectiveness of the RPM program.
- Identify areas for improvement and set goals and track progress for enhancing patient outcomes, satisfaction, and program efficiency.

Training & Professional Development:

- Plan training sessions or workshops to keep team members updated on new technologies, clinical guidelines, and best practices in RPM.
- Provide opportunities for professional development and skill enhancement.

Action Items & Follow-Up:

- Summarize key decisions, action items, and responsibilities assigned during the meeting.
- Establish timelines for completing tasks and schedule follow-up meetings or check-ins to track progress and ensure accountability.

By addressing these components and goals, Clinical/Operations team meetings for an RPM program can facilitate effective collaboration, optimize patient care delivery, and drive continuous improvement in program performance.

Quality Oversight Meetings

Quality oversight is crucial for the effective implementation and continuous improvement of an RPM program. Here are key components of RPM program quality oversight:

Clinical Guidelines & Protocols:

- Establish clear evidence-based clinical guidelines and protocols for monitoring various health conditions.
- Ensure alignment with industry standards, best practices, and guidelines from relevant healthcare organizations.

Training & Competency:

- Provide comprehensive training for healthcare professionals involved in the RPM program.
- Ensure all team members have the necessary competencies to use monitoring devices, interpret data, and effectively communicate with patients.

Regulatory Compliance:

- Stay updated on relevant healthcare regulations and ensure compliance with local, state, and federal guidelines.
- Implement measures to protect patient privacy and adhere to data security standards.

Data Accuracy & Reliability:

- Regularly assess the accuracy and reliability of RPM data.
- Implement mechanisms to address data quality issues promptly and ensure that monitoring devices are calibrated and functioning correctly.

Interoperability & Integration:

- Ensure seamless integration of RPM data with EHRs and other healthcare systems.
- Monitor interoperability to facilitate efficient communication among care team members.
- Address issues related to care team integration and/or communication to ensure effective care coordination.

Patient Engagement & Education:

- Evaluate strategies for patient engagement and education.
- Monitor patient adherence to monitoring protocols and provide ongoing education to enhance understanding and cooperation.

Continuous Monitoring & Analysis:

- Establish processes for continuous monitoring and analysis of RPM program performance.

- Regularly review patient outcomes, adherence rates, and other key performance indicators (KPIs) to identify areas for improvement.

Risk Management:

- Implement a risk management plan to identify and mitigate potential risks associated with RPM.
- Develop protocols for addressing emergencies and ensuring prompt interventions based on RPM data.

Feedback Mechanisms:

- Establish feedback mechanisms for both healthcare professionals and patients.
- Encourage open communication to gather insights into program effectiveness and areas that may need improvement.

Performance Metrics & Reporting:

- Define key performance metrics to assess the success of the RPM program.
- Regularly generate reports and analyze data to measure the impact on patient outcomes, cost-effectiveness, and overall program goals.

Patient Safety & Satisfaction:

- Prioritize patient safety by implementing measures to prevent adverse events.
- Monitor patient satisfaction through surveys and feedback to understand their experience with the RPM program.

Quality Improvement Initiatives:

- Implement a continuous quality improvement (CQI) framework.
- Act on insights gained from data analysis and feedback to enhance the program's effectiveness and efficiency.

Collaboration Among Care Team Members:

- Encourage collaboration and effective communication among care managers, PCPs, specialists, and other team members.
- Regularly assess the coordination and integration of care plans.

Audit & Evaluation:

- Conduct regular internal audits to ensure adherence to established protocols.
- Engage in external evaluations or audits to receive objective feedback on program quality.

Quality oversight in an RPM program involves a comprehensive and multidimensional approach, focusing on clinical, operational, and patient-related aspects to ensure the program's success and positive impact on patient care.

Gauging Remote Patient Monitoring Stakeholder Readiness & Potential Challenges

One of the first steps in developing an RPM program is to assess the key stakeholders, potential challenges, and addressable solutions that should be considered before beginning. Taking the time to zero in on these items and understand some of the common challenges rural independent hospitals have encountered on their RPM implementation journeys will help a provider/organization determine if they want to go it alone and implement an RPM program that is supported solely by their internal resources, or whether they want to find an appropriate RPM vendor that will step-in and provide resources and expertise where needed.

When evaluating an RPM program for your organization, it's essential to consider potential barriers that may impact its implementation and effectiveness. Here are some key barriers to keep in mind:

Technological Barriers:

- Access & Connectivity: Limited access to technology or unreliable internet connectivity among certain patient populations may hinder participation in RPM.
- Device Compatibility: Compatibility issues with existing healthcare IT systems or EHRs may pose challenges in integrating RPM data into clinical workflows.

Patient Engagement & Adherence:

- Patient Education: Lack of awareness or understanding about RPM among patients may result in low engagement or adherence to monitoring protocols.
- Health & Digital Literacy: Patients with limited health or digital literacy may struggle to navigate RPM devices or interpret monitoring data accurately.

Provider Buy-in & Workflow Integration:

- Provider Resistance: Resistance from healthcare providers to adopt RPM due to concerns about increased workload, workflow disruptions, or unfamiliarity with remote monitoring technologies.
- Workflow Integration: Challenges in integrating RPM data into existing clinical workflows or care coordination processes may impede seamless collaboration among providers and care teams.

Reimbursement & Financial Sustainability:

- Reimbursement Policies: Uncertainty or limitations in reimbursement policies and rates for RPM services may impact the financial sustainability of the program.
- Costs & Investments: Upfront costs associated with purchasing RPM devices, implementing technology infrastructure, and training staff may pose financial barriers for organizations.

Data Security & Privacy Concerns:

- Data Security Risks: Concerns about data security breaches, patient privacy violations, or regulatory non-compliance may deter organizations from adopting RPM technologies.
- HIPAA Compliance: Ensuring compliance with Health Insurance Portability and Accountability Act (HIPAA) regulations and other data protection standards is essential but may require additional resources and expertise.

Regulatory & Legal Considerations:

- Regulatory Requirements: Keeping up with evolving regulatory requirements and standards governing RPM technologies, data transmission, and patient consent may present compliance challenges.
- Legal Liability: Potential legal liabilities associated with the use of RPM devices, data interpretation, and clinical decision-making require careful risk assessment and mitigation strategies.

Patient Population Characteristics:

- Complexity of Conditions: Managing RPM for patients living with complex medical conditions, comorbidities, or diverse socioeconomic backgrounds may require tailored approaches and additional support resources.
- Health Disparities: Addressing health disparities and ensuring equitable access to RPM services for underserved populations may require targeted outreach efforts and community partnerships.

Evaluation & Outcomes Measurement:

- Outcome Evaluation: Challenges in measuring and demonstrating the impact of RPM on patient outcomes, healthcare utilization, and cost-effectiveness may affect stakeholders' confidence in the program's effectiveness.
- Data Interpretation: Ensuring accurate interpretation of RPM data and translating insights into actionable clinical interventions may require ongoing training and clinical support for providers.

By proactively identifying and addressing these potential barriers, organizations can develop strategies to mitigate risks and optimize the implementation and success of their RPM programs. Please refer to our 'Common Barriers & Addressable Solutions Chart' in the Appendix with some of these challenges divided into three overarching categories: people, processes, and technology.

Conclusion

Like all aspects of healthcare, digital health solutions continue to evolve. When leveraging this playbook, it is important to understand that these findings and suggestions stem from research and work that took place from November 2022 through June 2024. When researching remote patient monitoring and evaluating the best approach for your organization, be sure to spread your research net far and deep and include recent publications, regulations and/or billing guidelines in your review.

Appendix

About Michigan Center for Rural Health

The Michigan Center for Rural Health (MCRH), a 501c3 established in 1991, is the State of Michigan's Office of Rural Health (SORH). As Michigan's SORH, MCRH plays a key role in rural health care by assisting in the creation and implementation of partnerships among organizations, health departments, hospitals, government, and academia. Historically, these collaborations have resulted in new opportunities in network development, quality of care, emergency medical services, continuing education, and recruitment and retention of rural health care providers.

About Higi Care Everyday

Higi Care Everyday is a RPM and chronic care management platform, and a service of Modivcare (Nasdaq: MODV). Through Higi Care Everyday, patients monitor their chronic conditions using remote medical devices, including blood pressure cuffs, blood glucose meters, and weight scales. Patients are assigned a dedicated care manager to help them track their progress and reach their health goals, all from home.

Glossary

Accountable Care Organization (ACO): A group of healthcare providers who work together with the primary goal of improving patient care quality and controlling costs by coordinating care for a defined patient population.

Allowable charge: The maximum amount an insurer will reimburse a provider for a given service.

Blood pressure monitor: An instrument used for measuring systolic and diastolic blood pressure. Typically, the monitor is comprised of an inflatable cuff which works to collapse and then release the artery under the cuff in a controlled manner so the blood pressure can be read based on the variations in the volume of blood in the artery.

Centers for Medicare & Medicaid Services (CMS): The federal agency that provides health coverage to more than 160 million people in the US through Medicare, Medicaid, the Children's Health Insurance Program, and the Health Insurance Marketplace. Most commonly this agency is referred to by the acronym "CMS."

Community Health Worker (CHW): A frontline public health worker who is a trusted member of and/or has an unusually close understanding of the community. Provides basic healthcare services, education, and support to community members (often in underserved populations) and builds individual and community capacity by increasing health knowledge and self-sufficiency. CHWs (community health workers) usually share ethnicity, language and socioeconomic status, and life experiences with the community members they serve.

Current Procedural Terminology code (CPT): More commonly referred to as a "CPT" code, a system of identification from the uniform nomenclature for coding medical procedures and services. The American Medical Association's CPT Editorial Panel is responsible for updating or modifying code descriptors, coding rules, and guidelines foreach CPT code.

Critical Access Hospital (CAH): A designation given to a rural hospital that has met specific criteria set forth by the Centers for Medicare & Medicaid Services (CMS). Criteria includes having 25 or fewer acute care inpatient beds, being located more than 35 miles from another hospital, maintaining an annual length of stay of 96 hours (about 4 days) or less for acute care patients and providing 24/7 emergency care services. CAHs (Critical Access Hospital) receive cost-based reimbursement from Medicare. The CAH designation is designed to reduce the financial vulnerability of rural hospitals and improve access to healthcare by keeping essential services in rural communities.

Electronic Health Record (EHR): A digital version of a patient's medical history, accessible to authorized healthcare providers for efficient and coordinated care delivery.

Federally Qualified Health Center (FQHC): A community-based healthcare facility funded by the government to provide comprehensive medical, dental, and behavioral health services to underserved populations, regardless of their ability to pay. They play a crucial role in improving access to healthcare for vulnerable populations, including low-income individuals, uninsured individuals, and those living in rural or urban areas with limited healthcare resources. FQHCs must meet certain requirements to receive federal funding and must provide services on a sliding fee scale based on patients' ability to pay.

Fee-for-service (FFS): A healthcare payment model where providers are reimbursed for each service they deliver to patients, typically based on a predetermined fee schedule. This payment model has been traditional in healthcare but has been evolving towards value-based care (VBC) models where reimbursement is tied to the quality and outcomes of care rather than the volume of services provided.

Glucometer: Also commonly referred to as a "glucose meter," a glucometer is a medical device for determining the approximate concentration of glucose in the blood. Most glucometers require the user to pierce a fingertip with a lancet to secure a small drop of blood that then is placed on a disposable test strip which the user inserts into the meter to calculate the blood glucose level.

Health insurance: A contract that requires a health insurer to pay some or all healthcare costs in exchange for a premium. A health insurance contract may also be called a "policy" or a "plan."

Healthcare Common Procedure Coding System (HCPCS): A standardized set of codes used for billing and reimbursement in healthcare, covering procedures, services, and supplies provided to patients. It consists of two levels:

- Level I: These codes, also known as Current Procedural Terminology (CPT) codes, are maintained by the American Medical Association (AMA).
- Level II: These codes are maintained by the Centers for Medicare & Medicaid Services (CMS) and cover a broader range of services and supplies not included in CPT codes. Level II HCPCS codes include durable medical equipment (DME), prosthetics, orthotics, supplies, and certain outpatient services.

Healthcare Effectiveness Data & Information Set (HEDIS): A set of performance measures (more than 90 measures across 6 domains of care) widely used in the healthcare industry to assess the quality of care and services provided by health plans.

Insured person: A person enrolled in a healthcare plan and entitled to benefits under the plan, often referred to as a covered person, enrollee, member, or subscriber.

Physiological biometric readings: Measurements of various biological parameters or characteristics (e.g., vital signs, blood glucose levels, oxygen saturation, body composition, physical activity) of an individual. These readings can provide valuable insights into an individual's health and wellness, aid in disease management, support preventative healthcare measures, and facilitate personalized healthcare interventions.

Provider: A term used to designate a healthcare professional or organization who/that provides healthcare services. The term provider is broad and encompasses many different licensed healthcare professionals who provide care to patients.

Medicaid: Health coverage available to eligible low-income adults, children, pregnant women, elderly adults, and people with disabilities. Medicaid is funded jointly by states and the federal government and is administered by states in accordance with federal requirements.

Medicare: Federally funded health coverage for people 65 or older, some younger people with disabilities, and people with End-Stage Renal Disease (ESRD).

Medicare Shared Savings Program (MSSP): A value-based payment model established by the Centers for Medicare & Medicaid Services (CMS) to incentivize healthcare providers to improve the quality of care while reducing healthcare costs for Medicare beneficiaries. Under the MSSP, eligible healthcare providers, including accountable care organizations (ACOs), voluntarily participate in coordinated care efforts, with incentives for achieving savings and meeting quality standards.

Quadruple aim: A framework for optimizing healthcare delivery and achieving value-based care that advocates for enhancing patient experience, improving population health, lowering the cost of care, and improving the provider/healthcare team experience.

Qualified Healthcare Professional (QHP): Someone with the necessary education, training, and licensure to provide healthcare services within their field/scope of practice. Specific qualifications requirements may vary depending on the country, region, and healthcare discipline.

Revenue Cycle Management (RCM): The process of managing the financial aspects of healthcare services provided to patients, from the initial appointment scheduling and patient registration to the final payment collection, to optimize revenue and ensure timely reimbursement. It encompasses various administrative and clinical functions, including verifying insurance eligibility, submitting claims to payers, coding and billing for services rendered, and following up on unpaid claims and denials.

Remote Patient Monitoring (RPM): A digital method of healthcare delivery that uses technology (remote medical devices) to gather patient data outside of traditional healthcare settings to better inform a patient's provider-established care plan. Collecting such physiological data allows healthcare providers to monitor a patient's health conditions in real-time, allowing for early identification of potential issues and intervention. Sometimes remote patient monitoring is used synonymously with "remote physiological monitoring."

Remote Patient Monitoring (RPM) care manager: A healthcare professional responsible for overseeing and coordinating RPM activities (e.g., setting up monitoring devices, educating patients on their use, reviewing and interpreting collected data, communicating with patients about their health status, coordinating care with other healthcare providers, and intervening, when necessary based on data received) for a group of patients. RPM care managers play a vital role in ensuring the effectiveness and success of RPM programs by providing support and guidance to patients while facilitating communication and collaboration among the healthcare team. They play a primary role in evaluating and ensuring patient engagement.

Remote Therapeutics Monitoring (RTM): A method of healthcare delivery that allows healthcare providers to collect and monitor therapeutic data from patients through a patient's self-reported metrics. These metrics provide healthcare providers the ability to monitor how the musculoskeletal and respiratory systems are functioning, as well as therapy adherence and therapy response in patients, which enables active management and adjustment of treatment plans from a distance.

Return on Investment (ROI): A financial metric used to evaluate the efficiency and profitability of an investment. It is calculated by dividing the net profit generated by the investment by the initial cost of the investment and then multiplying the result by 100 to express it as a percentage. A higher ROI indicates a more profitable investment.

Rural Health Clinic (RHC): A healthcare facility in a rural area that provides primary care services to medically underserved populations, aiming to improve healthcare accessibility in those regions. To qualify as a Centers for Medicare & Medicaid Services (CMS) recognized RHC and thus receive payment from CMS for outpatient physician and certain nonphysician services, a clinic must meet specific qualifications.

SMART goal: A framework for setting clear, achievable, and meaningful objectives. The acronym SMART stands for specific (the goal should be clear and specific so anyone looking at it understands what is to be achieved), measurable (the goal should have criteria for measuring progress and determining when it is accomplished), achievable (the goal should be realistic and attainable, not impossible to reach), relevant (the goal should matter to you and align with other relevant objectives), time-bound (the goal should have a deadline or a specific timeframe to create a sense of urgency).

Social Drivers of Health (SDoH): Conditions in which people are born, grow, live, work, and age and the wider set of forces and systems shaping the conditions of daily life. These determinants include factors such as socioeconomic status, education, neighborhood and physical environment, employment, social support networks, and access to healthcare services. They play a significant role in influencing individuals' health outcomes and overall well-being. Addressing SDoH is essential for achieving health equity and improving population health outcomes. Sometimes social drivers of health are used synonymously with "social determinants of health."

Value-based Care (VBC): A healthcare delivery model that prioritizes the quality and outcomes of patient care over the volume of services provided. The goal of VBC is to create a more efficient and effective healthcare system that delivers better outcomes for patients and increases patient satisfaction while controlling costs. VBC payment models link reimbursement to the quality and effectiveness of care. VBC places high importance on preventative care and managing the health of populations to prevent or better manage chronic conditions.

Weight scale: A device used to measure a person's weight or mass.

Remote Patient Monitoring Common Barriers & Addressable Solutions Chart

Stakeholder	Common Requirements	Challenges	Addressable Solutions
People	1. Define target patient population 2. Assess commercial payer coverage of RPM 3. Identify staffing plan: • Providers • Care managers • Support staff • Contracting support/ Legal/compliance support • RCM • IT (Information Technology) • Marketing 4. Assure appropriate licensing for providers and care managers	1. Identify high risk, high-cost populations, and impactful conditions 2. Commercial coverage varies; may require additional contracting 3. Supervising physicians, clinicians, and care managers will be needed, with adequate time and focus needed to optimize RPM outcomes. This can be challenging in small organizations without adequate staffing. Initial program design, escalation protocols and billing rules require dedicated support personnel with adequate bandwidth to confirm and oversee regulatory, compliance and risk-related aspects of the program 4. Multi-state licensing may be required. Licensure portability for cross state coverage (for patients who may winter in states outside of their primary residence)	1. Risk stratified population health tools (internal or external) and target impactful chronic conditions prevalent in your population 2. Begin with Medicare, Medicaid dual-eligibles while assessing 3rd party payers 3. Use of cellular enabled devices with no app or Bluetooth requirement 4. Focus on Compact Licensure for nursing staff

Processes	1. Robust policies and procedures (clinical and non-clinical) 2. Variable coverage payer to payer 3. Medicare category limitations (RPM, RTM, CCM, etc.); annual Medicare regulatory rules 4. Part B copay collection	1. Many policies and procedures are required for initial implementation, ongoing training, on-boarding, and annual review 2. Commercial coverage varies; may require additional contracting; Robust eligibility checks needed 3. Annual changes in coverage and exclusions must be monitored and implemented to maintain compliance; additional training may be required for staff personnel. 4. Difficulty collecting copays in vulnerable populations; may hamper enrollment and consent	1. Consider outsourcing 2. Commercial coverage varies; may require additional contracting 3. Engage appropriate legal/compliance expertise 4. Assess all financial support programs available to reduce financial barriers

Technology	1. Device selection 2. Patient Wi-Fi or cellular access 3. RPM data system with reading and alert management; billing capabilities; care planning; enrollment tracking; care manager time tracking; reports and analytics capabilities 4. Telehealth needs: provider visits; digital engagement system (phone/text and/or email platforms)	1. Consider ease of use and reliability Potential technology literacy barriers 2. Cost of Wi-Fi; cellular network available 3. Robust platform needed to assure billing capture and efficient team performance 4. Lack of patient ability to download app or utilize portal; Patient lacks skills with technology for telehealth visit	1. Consider cellular devices with no need for application download, Bluetooth sync or patient portal 2. Assess cellular network availability to avoid internet/Wi-Fi cost issue 3. Use EHR for telehealth/medical necessity visit; assess EHR or 3rd party platforms for RPM data and care management 4. Use community support resources (home health, EMS, or similar programs) or engage caregivers for support

Remote Patient Monitoring Patient Population Selection Checklist

❒ **Identify Target Conditions:**

- Determine the specific chronic conditions or health issues that could benefit from remote monitoring (e.g., hypertension, diabetes, heart failure, etc.).

❒ **Review Clinical Guidelines:**

- Consult relevant clinical guidelines and recommendations to identify conditions suitable for RPM monitoring.
- Consider conditions with high morbidity, frequent exacerbations, or those requiring ongoing management.

❒ **Assess Patient Suitability:**

- Evaluate patients' clinical characteristics and medical history to determine suitability for RPM.
- Consider factors such as disease severity, stability, and the potential for exacerbation.

❒ **Define Inclusion & Exclusion Criteria:**

- Establish clear criteria for including patients in the RPM program (e.g., diagnosis criteria, age range, willingness to participate).
- Identify any contraindications or factors that may exclude patients from participation (e.g., cognitive impairment, lack of access to technology).

❒ **Assess Technology Readiness:**

- Evaluate patients' access to and familiarity with technology needed for remote monitoring (e.g., smartphones, tablets, wearable devices).
- Consider factors such as internet connectivity, device compatibility, and technical support availability.

❒ **Consider Socioeconomic Factors:**

- Consider socioeconomic factors that may impact patients' ability to participate in RPM (e.g., access to transportation, financial resources).
- Address disparities in healthcare access and ensure equitable participation opportunities.

❒ **Engage Stakeholders:**

- Involve key stakeholders such as PCPs, specialists, care managers, and patients in the selection process.
- Seek input and collaboration to ensure that selected patients align with the goals and objectives of the RPM program.

❒ **Assess Patient Motivation & Engagement:**

- Evaluate patients' willingness and ability to actively engage in remote monitoring activities.
- Consider factors such as motivation for self-management, adherence to treatment plans, and communication preferences.

❒ **Review Regulatory Requirements:**

- Ensure compliance with regulatory requirements governing the use of RPM technology and patient data (e.g., HIPAA regulations).
- Address legal and ethical considerations related to patient consent, privacy, and data security.

❒ **Evaluate Resource Availability:**

- Assess the availability of resources and support needed to implement and sustain the RPM program (e.g., staffing, infrastructure, training).
- Consider the capacity of healthcare providers and organizations to manage the selected patient population effectively.

❒ **Pilot Testing:**

- Consider conducting a pilot test or trial period to assess the feasibility and effectiveness of remote monitoring for the selected patient population.
- Gather feedback from participants and stakeholders to inform adjustments and improvements to the program.

❒ **Monitor & Adjust:**

- Continuously monitor patient outcomes, engagement levels, and program effectiveness.
- Be prepared to adjust selection criteria and program strategies based on ongoing evaluation and feedback.

By following this checklist and considering a range of factors, healthcare providers can effectively select a suitable patient population for their RPM program, ensuring optimal outcomes and patient satisfaction.

Selecting a Remote Patient Monitoring Device Vendor Checklist

Product Features & Capabilities:

- ❒ Device can monitor relevant parameters for your target patient population (e.g., blood pressure, heart rate, glucose levels, etc.).
- ❒ Device can securely transmit data to healthcare providers or monitoring platforms in real-time or at scheduled intervals.
- ❒ Data structure is compatible with existing healthcare IT infrastructure, electronic health record (EHR) systems, and monitoring platforms.
- ❒ Device's battery life and charging requirements are sufficient to ensure continuous monitoring without frequent interruptions.
- ❒ Device's user interface, setup process, and instructions for patients to ensure ease of use and minimal training requirements.
- ❒ Accuracy and reliability of the device's measurements has successfully demonstrated clinical validation and testing.

Data Security & Compliance:

- ❒ Device and associated software comply with the Health Insurance Portability and Accountability Act (HIPAA) regulations for patient data protection.
- ❒ Data transmission and storage are encrypted to protect patient privacy and prevent unauthorized access.
- ❒ Ownership rights and responsibilities regarding patient data collected by the device and associated software meet your organization data security and privacy requirements.

Technical Support & Maintenance:

- ❒ Vendor's technical support services, including availability, responsiveness, and expertise in resolving technical issues meets your service level expectations.
- ❒ Warranty terms and maintenance agreements adequately address timely repairs, replacements, and updates for the devices.
- ❒ Training programs and resources are provided by the vendor to educate healthcare providers and patients on device use and troubleshooting.

Cost & Affordability:

- ❒ Initial cost of purchasing the devices, including any hardware, software, and setup fees are clearly stated.
- ❒ Ongoing subscription or licensing fees for access to monitoring platforms, software updates, and technical support are clearly stated.

- ❒ Total cost of ownership over the device's lifespan, including maintenance, support, and replacement costs meets budgeted expense and results in a positive ROI.

Scalability & Integration:

- ❒ Device can accommodate future growth in patient volume and expansion of monitoring programs.
- ❒ Devices are compatible with your healthcare data systems, EHR platforms, and third-party applications for seamless data integration and workflow optimization.

User Experience & Patient Engagement:

- ❒ The device's design and usability from the patient's perspective will promote engagement and adherence to monitoring protocols.
- ❒ The device's ability to provide feedback, reminders, and notifications are clear and available to patients to encourage active participation in their care.

Clinical Validation & Evidence:

- ❒ Clinical studies, publications, and evidence support the device's effectiveness, accuracy, and clinical outcomes.
- ❒ Device has received regulatory approval or clearance from relevant authorities (e.g., FDA (Food and Drug Administration) approval in the United States) for its intended use.

Vendor Reputation & References:

- ❒ The vendor's reputation, experience, and record of accomplishment in providing RPM devices and services has been assessed and there are no remaining concerns.
- ❒ References or case studies have been received from current customers to assess their satisfaction with the vendor's products and service and there are no remaining concerns.

Customization & Flexibility:

- ❒ Customization options for tailoring the device's features and functionalities to meet specific clinical needs or patient populations have been discussed and meet your organization requirements.
- ❒ The device's flexibility in deployment options (e.g., cloud-based, on-premises) accommodate diverse healthcare settings and preferences that may be needed across your organization.

Futureproofing & Innovation:

- ❒ The vendor's product roadmap and commitment to ongoing innovation, including plans for future enhancements and updates are available and part of the ongoing partnership with your organization.
- ❒ The vendor's investment in emerging technologies (e.g., artificial intelligence, predictive analytics) to enhance device capabilities and patient care outcomes has been discussed and aligns with your organizational goals and interests.

By systematically evaluating vendors against this checklist, healthcare providers can make informed decisions when selecting RPM devices that best meet their clinical needs, technical requirements, and budget constraints.

Examples of Frequently Asked Questions about a Remote Patient Monitoring Program

When creating various patient facing materials (including an FAQ document), aim to include the answers to questions such as these:

- What is RPM?
- Who is a good candidate for RPM?
- What RPM devices does [insert organization's name] offer enrollment services for?
- How will enrolling in RPM benefit me?
- How can I learn more about [insert organization's name] RPM program?
- What chronic conditions are managed by RPM?
- Does the RPM program replace my current primary care doctor?
- Do I have to have a primary care doctor to be able to enroll in RPM?
- Why does my doctor need my vitals monitored?
- What is the step-by-step process for how the RPM program works?
- I already have a device. Can I enroll in the RPM program and use my current device?
- Who will my personal health data (including my biometric readings) be shared with?
- Does the RPM program include other telehealth services?
- Does a patient enrolled in RPM talk to real people, or is this program run by computers and algorithms?
- Is the cost of RPM covered by my medical insurance? How much will RPM cost me?
- How long does a patient typically stay enrolled in the RPM program?
- Can a patient unenroll from the RPM program at any time?
- If I unenroll from the RPM program, do I have to return the devices?
- Who does a patient contact if they experience technical issues with their RPM devices?
- What is the difference between RPM and Chronic Care Management?
- Can an individual be enrolled in RPM and Chronic Care Management at the same time?

Remote Patient Monitoring Program Clinical & Operational Team Sample Meeting Agenda

I. Opening (5 minutes)

- Welcome and Introductions
- Brief Overview of the Meeting Agenda

II. Review of Previous Meeting Minutes (5 minutes)

- Summary of Action Items from the Last Meeting
- Confirmation of Completed Tasks

III. Patient Progress & Data Analysis (20 minutes)

- Overview of Patient RPM Data Trends
- Discussion on Notable Changes or Concerns
- Collaborative Analysis of Patient Outcomes
- Identification of Patients Needing Attention or Intervention

IV. Adherence & Engagement (15 minutes)

- Assessment of Patient Adherence to Monitoring Protocols
- Strategies for Improving Patient Engagement
- Sharing Success Stories and Challenges Faced

V. Care Plan Adjustments (15 minutes)

- Review of Current Care Plans
- Discussion on Necessary Adjustments Based on RPM Data
- Collaboration on Individual Patient Care Approaches

VI. Integration with Care Team (15 minutes)

- Updates on Communication and Collaboration Among Care Team Members
- Feedback on RPM Data Utilization by PCPs and Specialists
- Identification of Opportunities for Streamlining Workflows

VII. Patient Education & Support (10 minutes)

- Overview of Patient Education Initiatives
- Discussion on Patient Support Programs and Resources
- Feedback on Patient Satisfaction and Suggestions for Improvement

VIII. Program Evaluation & Metrics (15 minutes)

- Review of Key Performance Indicators (KPIs)
- Analysis of Success Measures and Areas for Improvement
- Planning for Program Expansion or Optimization

IX. Technology & Data Security (10 minutes)

- Updates on RPM Technology Infrastructure
- Discussion on Data Security Measures and Compliance
- Addressing Any Technology-related Issues or Concerns

X. Future Planning & Goals (10 minutes)

- Setting Short-Term and Long-Term Goals for the RPM Program
- Identification of Opportunities for Program Enhancement
- Planning for Training and Skill Development

XI. Open Floor for Questions & Concerns (10 minutes)

- Inviting Team Members to Share Questions or Concerns
- Collaborative Problem-solving and Idea Sharing

XII. Closing Remarks (5 minutes)

- Summary of Action Items and Next Steps
- Thanking Team Members for Their Contributions
- Announcement of the Next Meeting Date

Note: Adjust the topics and associated time allocations based on the specific needs and priorities of your RPM program. Encourage active participation and collaboration among team members to ensure a productive and effective meeting.

Organizational Readiness Assessment for Remote Patient Monitoring Program Launch

Checklist Item	Description	Date Completed
Define Program Objectives	Clearly articulate the goals and objectives of the RPM program, including improving patient outcomes, enhancing care coordination, and reducing healthcare costs. Make the objectives SMART goals, wherever possible.	
Determine RPM Scope	Clearly define whether to include the following: • billing to payers • as a complement or in lieu of CCM • personalized vs standardized care plans • workflow with primary care office • documentation requirements	
Assess Organizational Readiness	Evaluate the organization's capacity, resources, and infrastructure to support the RPM program, including technology, staffing, and administrative support.	
Establish Stakeholder Engagement	Identify key stakeholders, including clinicians, administrators, IT personnel, and patients, and engage them in the planning and implementation process.	
Develop Program Policies & Procedures	Define program policies and procedures, including patient eligibility criteria, consent processes, data privacy policies, documentation, and billing protocols.	

Select RPM Devices & Vendors	Evaluate and select RPM devices and vendors based on features, reliability, data security, and affordability, ensuring compatibility with organizational requirements.	
Integrate with Existing Systems	Ensure seamless integration of RPM data with electronic health records (EHRs), health information systems, and other healthcare IT infrastructure to support clinical workflows.	
Establish Clinical Protocols	Develop clinical protocols and workflows for patient consent, enrollment, device setup/education, data monitoring, and response to abnormal readings or alerts.	
Provide Staff Training	Train healthcare providers, staff, and patients on the proper use of RPM devices, data interpretation, and adherence to monitoring protocols. Ensure providers understand how to order or refer a patient for RPM and the escalation process and data available.	
Obtain Patient Consent	Define and test the workflow for getting informed consent from patients participating in the RPM program, ensuring understanding of the program's purpose, benefits, and data privacy policies (as approved by legal and compliance teams).	
Implement Data Security Measures	Implement data security measures to protect patient information, including encryption, access controls, and compliance with regulatory requirements.	

Establish Communication Channels	Set up communication channels for patients to report issues, receive support, and engage with healthcare providers, including phone lines, messaging platforms, and patient portals.	
Pilot Test & Iterate	Conduct a pilot test or trial period to assess the feasibility and effectiveness of the RPM program, gathering feedback from participants and stakeholders to inform adjustments and improvements.	
Develop Marketing & Outreach Strategies	Develop marketing and outreach strategies to promote awareness of the RPM program among patients, caregivers, and referring providers, highlighting its benefits and value proposition.	
Monitor Program Performance	Establish metrics and key performance indicators (KPIs) to monitor the performance and impact of the RPM program, regularly assessing patient outcomes, engagement levels, and program effectiveness.	
Compliance & Documentation	Ensure compliance with regulatory requirements, accreditation standards, and organizational policies, maintaining documentation of program activities, outcomes, and quality improvement efforts.	
Go / No-Go Meeting	Once every checklist item has been completed, gather all core stakeholders for a GO/ NO GO vote of confidence and set a date for launch.	
Celebrate!	Take time to celebrate the significant effort extended by the team once the first patient is successfully enrolled (or another milestone selected by your organization)	