# Table of Contents

## PART 1 / WARMUP
- Introduction to the Digital Health Implementation Playbook... 4
- Introduction to Digital Health Solutions... 6
  - What is Remote Patient Monitoring?... 7
  - Remote Patient Monitoring in Practice: Hypertension... 8
- The Path to Implementation... 9

## PART 2 / PRE-GAME
- Step 1 / Identifying a Need... 10
- Step 2 / Forming the Team... 14
- Step 3 / Defining Success... 18
- Step 4 / Evaluating the Vendor... 22
- Step 5 / Making the Case... 26
- Step 6 / Contracting... 30

## PART 3 / GAME TIME – REMOTE PATIENT MONITORING
- Step 7 / Designing the Workflow... 34
- Step 8 / Preparing the Care Team... 38
- Step 9 / Partnering with the Patient... 40
- Step 10 / Implementing... 44
- Step 11 / Evaluating Success... 48
- Step 12 / Scaling... 52

## PART 4 / POST-GAME – RESOURCES
- 56
- 60
- 66
Part 1: Warmup

Before you embark on your digital health implementation, it’s important to understand what digital health is and how it’s impacting the world of health care. The following pages define digital health and explain how to use the resources included in this document.
Introduction to the Digital Health Implementation Playbook

Digital tools that enable new methods and modalities to improve health care, enable lifestyle change, and create efficiencies are proliferating quickly. Clinical integration of these tools is lacking. We want to change that.

At the AMA, we are committed to partnering with physicians to meet the changing landscape of health care. Recent research¹ found that physicians had four key requirements for the adoption of digital health in practice:

- Does it work?
- Will I receive payment?
- Will I be liable?
- Will it work in my practice?

In support of that pursuit, we have collaborated² with physicians and thought leaders to create the Digital Health³ Implementation Playbook.

WHAT IS THE DIGITAL HEALTH IMPLEMENTATION PLAYBOOK?

Months of research compiled into a Playbook documenting the most efficient path to implement new digital health solutions including key steps, best practices, and resources to accelerate and achieve digital health adoption.

WHO IS THIS PLAYBOOK FOR?

This Playbook is intended for those who believe in the importance of digital health and its role in helping deliver better care. Whether you are a physician, a care team member, health care administrator, or a passionate advocate for the implementation of digital health technology, if you are looking for guidance to navigate the process and achieve scale, this Playbook is for you.

WHY SHOULD I USE THE PLAYBOOK?

Implementing digital health technology can be complicated and time-consuming. On average, it takes hospitals 23 months to go from identifying a digital innovation need to scaling a digital solution to meet that need⁴. The Playbook is designed with input from over 80 physicians, care team members, health care administrators, and digital health thought leaders to help health care organizations adopt change faster and more successfully.

WHEN SHOULD I USE THE PLAYBOOK?

Refer to this Playbook whenever you are considering the implementation of a digital health solution. By adopting these solutions now, your organization can improve its ability to deliver on the Quadruple Aim of Healthcare.⁵

WHERE CAN I USE THE PLAYBOOK?

The Playbook is designed for care teams and administrators in medical practices of all sizes and areas of specialty. We have consulted with small private practices and large health systems, in rural and urban settings, with high income and Medicaid-dependent populations. No matter where you are, you can use this Playbook as a guide to successfully implement digital health solutions in your practice.

HOW DO I USE THE PLAYBOOK?

The Playbook is organized into 12 key steps to guide you along your path to implementation. In addition to this timeline, you will also find resources, checklists, practice spotlight stories, and examples to provide further guidance along your journey.
Digital Health is the Future.

New technologies are fundamentally changing the way people interact with health care. Successful implementation of digital health technology will be imperative for improving patient outcomes and ensuring financial stability for health care practices.

The landscape of digital health technology is seemingly endless and spans from internal efficiency solutions to data management to population health to patient interaction tools. You’ve likely been exposed to or considered implementing a number of these solutions.

Despite the increasing prevalence of digital health, health system leaders struggle to drive innovation. They are looking for a better and more efficient path to scaled implementation, but report that knowledge gained by other organizations and best practices are not readily available. This Playbook is an effort to provide widespread access to institutional knowledge and best practices currently held by experts in the field.

This Playbook is a living document that will be updated to include new content over time. As the Playbook evolves, it will provide helpful frameworks and resources for your practice related to specific digital health solutions.

Currently, this Playbook provides resources for the implementation of:

Remote Patient Monitoring

If you are currently interested in learning more about digital health, you can find more resources at www.ama-assn.org/delivering-care/digital-health-leadership.
Introduction to Digital Health Solutions

WHAT IS REMOTE PATIENT MONITORING?

Remote patient monitoring (RPM) is a digital health solution that captures and records patient physiologic data outside of a traditional health care environment.

RPM solutions transmit that data to health care professionals for review, diagnosis, or clinical management. With this data, the care team can monitor chronic conditions outside of the traditional health care environment and intervene in disease management as necessary.

With seven out of the 10 leading causes of death in the United States and 86% of U.S. health expenditures attributed to people with chronic medical or mental health conditions, finding a solution is essential to population health and the fiscal solvency of the U.S. health care system. According to Healthbox and their recent Remote Monitoring and Connected Care report, “Remote monitoring programs present an opportunity to better understand and manage chronic diseases including diabetes, COPD, asthma, and chronic heart failure.”

RPM is particularly helpful in managing these conditions because it provides visibility into patients’ lives outside of their scheduled appointments, which has historically been a barrier to timely and effective diagnosis and management. With data collected over time, care team members can manage and treat chronic conditions in a way that is timely, meaningful, and realistic to the patient’s lifestyle. The data generated through RPM can help facilitate conversations between patients and physicians around the impact of disease and response to treatment and provide opportunities to intervene more quickly when health conditions worsen.

In addition to providing care teams with better, more actionable information earlier, RPM has been praised for engaging patients in their own care by providing them access to their own data so they can better understand the impact of their treatment and advocate for their medical needs.

“I had a young mom, she kept passing out, saw multiple physicians, etc., so we did a remote monitoring device. Sure enough, within two months, we picked up a rhythm that was easily curable for life. Once we cured the rhythm, she comes back and first thing she says is, ‘This has changed my life.’ Traditional ways for looking for rhythms and all that stuff just didn’t pick things up, and using this newer technology, we were able to really impact her life.”

—DR. RAJ S., CARDIOLOGIST
(SCL Health)

“Because they’re involved, [patients] take a more proactive role in their health, so they’re able to send info to me, I’m able to send info back to them. You know, for some of them, it’s sort of a way to remind them of things in between visits. So, I think it has certainly improved some of the health outcomes.”

—DR. B, PRACTICING PHYSICIAN
Hypertension affects about 46% of U.S. adults, has estimated costs exceeding $50 billion annually, and is the most common chronic condition for which patients see primary care physicians. Since hypertension often has few or no symptoms, it is commonly undertreated, leading to severe and life-threatening complications. A significant number of patients experience elevated blood pressure when in a clinical setting, which can make hypertension challenging to accurately diagnose. Poor measurement technique and measurement bias can also contribute to inaccurate office-based blood pressures. RPM is suited to address these challenges by providing:

- Frequent blood pressure monitoring over longer periods of time, yielding a more accurate assessment of patient’s true blood pressure and risk of future cardiovascular events
- Providers’ and patients’ access to daily blood pressures to assess the need for and response to adjustments in treatment
- RPM can signal effectiveness of treatment and cue earlier changes in treatment to get blood pressure under control faster

A 2018 study published in JAMA demonstrates how remote patient monitoring has the potential to significantly increase blood pressure control.

The AMA and their partners focus on reducing chronic disease and achieving the vision that everyone with hypertension in the U.S. will meet their goal blood pressure. This Playbook will contribute to that goal by providing best practices for RPM implementation. We have collaborated with medical professionals currently using RPM for hypertension control, as well as medical professionals using RPM for other chronic conditions, such as diabetes and heart disease, to develop a comprehensive list of best practices.
The following step-by-step process is intended to guide your practice through the implementation of a digital health solution.

The first six steps in Part 2 are fundamental to the implementation of any digital health solution and will remain consistent regardless of which technology you are looking to adopt. The subsequent six steps in Part 3 focus on specific digital health solutions and the unique considerations relevant to that specific technology.

While we have displayed these steps chronologically, we know that the real world is not always straightforward. Use this process as a guide while understanding that:

- The order of steps may shift based on your practice or organization
- Some steps may overlap or may be executed simultaneously
- Some steps may take more or less time than others
- You may need to reiterate or circle back to an earlier step when expanding your program or if challenges arise

We recommend reading through the Playbook in its entirety before embarking on the path to implementation, so you know what lies ahead. Then, once you’ve commenced the process in practice, refer to each step in Part 2 and Part 3 for best practices, checklists for success, and practice spotlight stories to guide you along your way.
Part 2: Pre-game

The following six steps will serve as the general foundation for implementing digital health solutions in practice and will prepare you to embark on the steps outlined in Part 3, which are specific to distinct digital health solutions.
Step 1: Identifying a Need

Ground your digital health implementation in a true need.

Start by identifying concrete areas where you want to see your organization improve. Brainstorm a list of your organization’s challenges—where you lose efficiency, where your staff encounter pain points, or where patients’ health or satisfaction suffers. The focus on need will help you avoid the temptation to experiment with new technologies that ultimately won’t result in tangible improvements to the efficacy of your organization or the health and satisfaction of your patients. Before adopting any new digital health solution, first identify what areas your organization needs to address or improve, envision the outcome you hope to achieve, and then look for a technology that is capable of delivering that solution.
WHY IDENTIFYING A NEED IS IMPORTANT

Prioritize resources by centering your initiative around a true organizational need.

This practice also:

• Brings purpose and context to the project
• Helps crystalize buy-in from key stakeholders
• Incites long-term stability for the project

GOALS TO ACCOMPLISH DURING IDENTIFYING A NEED

- Solicit feedback from staff to identify the biggest pain points and opportunities that exist in your organization (Appendix A.1)

- Identify areas of opportunity from patients via satisfaction and/or experience survey responses

- Prioritize your list of pain points and opportunities based on severity of need and fit with the strategic goals of the organization (Appendix A.2)

- Select a problem that, if solved, would have the greatest value to your entire organization and patients

- Envision the expected outcome(s) if that problem were addressed

- Research digital health solutions capable of delivering the desired outcome
Identifying a Need

BEST PRACTICE
Prioritize opportunities identified by front-line staff that align with your organization’s strategic goals.

This ensures time and money invested into any new implementation will deliver maximum value throughout the entire organization.

AVOIDING A MISSTEP
Be wary of flashy new technology that promise to make huge improvements.

The newest technology can be very compelling. To avoid wasting time solving a problem that you don’t really have, take the time to do your due diligence and make sure it is a good fit for your needs.

LARGE PRACTICE CALLOUT
Prioritization can be especially difficult for large organizations.

It is difficult when key decision-makers may not regularly interact with front-line staff. Seek feedback from care teams to avoid misalignment between the organization’s strategic priorities and the day-to-day needs of staff and patients.
Practice Spotlight

Engage end users to generate buy-in.

Many health organizations want to implement meaningful improvements but struggle to prioritize which initiatives to pursue first. In order to better align strategic and implementation goals, some organizations hold annual staff hackathons, competitions, or acceleration programs. These organizations encourage their staff to submit day-to-day pain points, challenges, or opportunities. Administrators and executives evaluate these submissions to determine which areas cause the most pain, and therefore, are most in need of a solution. By sourcing priorities from the bottom up, these organizations tend to better understand their needs and foster more engagement among their staff. Most importantly, these organizations make more informed decisions about which initiatives to prioritize—based on the real needs of their staff and patients.

—NICK DOUGHERTY, MANAGING DIRECTOR, MASSCHALLENGE

QUICK TIP

Look to your network.

Seek out colleagues within or at practices similar to yours who have previously counseled or executed the implementation of digital health solutions. Foster open communication with these advisors. If you are affiliated with another practice or health system, explore how they might support your implementation with existing programs and/or technology. Throughout the implementation process, rely on their experience and advice as you run into challenges.
Step 2: Forming the Team

The success of any implementation depends on engaging the right people.

Although one person can be accountable for driving the process forward, the process itself is a group effort. While you won’t need to directly engage all the teams right away, it’s helpful to identify who will be on which teams and consider when and how different players will be involved. (Appendix B.3) Consider organizing your key stakeholders into four teams: Core, Leadership, Advisory, and Implementation based on the criteria and responsibilities outlined in Appendix B.1.
WHY FORMING THE TEAM IS IMPORTANT

Having the right people involved upfront provides diverse perspectives.

These different viewpoints are critical to the development, selection, and implementation of digital health solutions, as they help to:

• Anticipate barriers from all angles
• Facilitate buy-in
• Minimize workflow disruption during implementation

GOALS TO ACCOMPLISH DURING FORMING THE TEAM

- Identify the key members of your Core, Leadership, Advisory, and Implementation teams (Appendix B.2)
- Outline and communicate the responsibilities and time commitment required of each team member
- Set up regular meetings with your Core team
- Solicit input from your Implementation team
- Set key checkpoints with the Advisory team
- Pre-seed your program intent with key members of your Leadership team
Forming the Team

AVOIDING A MISSTEP

Carefully consider who needs to be at the table.

It’s possible to have too many players involved, which could slow down the process. Alternatively, missing a key person or role during the planning stages can result in rework or difficulties with developing buy-in.

BEST PRACTICE

Keep the end user in mind.

The foundation of your implementation should be informed by the people you are designing for, so the solution is tailored to suit their needs. Consider who will be most impacted by the new technology—including staff and patients—and solicit feedback early on. Or, ask representatives for these individuals to sit on the Advisory or Core teams so you can keep their needs top of mind throughout the implementation process.
“If you don’t have the right people involved up front, you’ll face pushback down the road.”

—Dr. Katie Richardson, Health Care Innovation Leader, Colorado Permanente Medical Group

Practice Spotlight

In many organizations, the implementation of new technology is set by upper management.

For instance, when Sarah Ortiz, a health care administrator, was interested in using a different remote monitoring system, she discovered that a group consisting of a senior director, senior project manager, and one physician solely determined which technologies were used across all clinics in her organization. As a result, practice managers often had to backtrack and meet with the care teams to discuss the project, scope, roles, and importance of teamwork and host Q&A sessions with vendor representatives. To avoid a great deal of inefficiency, she recommended that the individuals responsible for selecting new technology engage their end users early on for perspective and incorporate their feedback prior to implementation.

—Sarah Ortiz, Healthcare Administrator

Quick Tip

Pre-seed your implementation idea with the Leadership team.

Use standing meetings or casual conversations to keep Leadership team members updated on your program rather than keep it a secret. Share your intent and provide initial exposure to your implementation before seeking official approval to secure high-level sponsorship and increase buy-in potential.
Step 3: Defining Success

Define what success looks like early.

Once you’re aligned with your Core team on an overall vision for success, use this phase to set specific short- and long-term goals with measurable metrics and a process for tracking your progress to guide your team along the way.
WHY DEFINING SUCCESS IS IMPORTANT

Envisioning success brings clarity to the goal you are trying to achieve.

This helps:

- Identify the right vendors
- Rally the team around a common goal
- Bring rigor to tracking metrics

GOALS TO ACCOMPLISH DURING DEFINING SUCCESS

- Research the types of results that are feasible with the solution you are considering
- Identify 3–5 goals that are most important for your entire practice or organization
- Identify which metrics are most appropriate for assessing progress toward these goals
- Ensure each goal is S.M.A.R.T. (Appendix C.2)
- Set up a process or system to collect data and track progress against the goals above
- Establish specific checkpoints to collect data
- Set clear endpoint criteria to re-evaluate as needed or to scale the program
- Plan for how and when you’ll establish baseline metrics as a comparison point for your program’s success
Defining Success

BEST PRACTICE

Align your goals to the Quadruple Aim of Healthcare.

By focusing on health outcomes, improving the patient experience, reducing cost and/or increasing provider satisfaction, you will inevitably impact the end user, care team or patient, in a positive way. These goals are also more likely to align with the strategic imperatives of your organization which will be an advantage when seeking approval and resources later in the process. (Appendix C.1)

AVOIDING A MISSTEP

Don’t skip this step!

Failing to establish a clear vision for success and a way to measure progress can lead to confusion, the need to rework, and frustration, which can ultimately jeopardize the fate of your implementation.

QUICK TIP

Explore how digital health solutions fit into government programs.

See how digital health solutions (i.e., remote patient monitoring) could help your practice or organization meet the participation requirements for programs such as the Quality Payment Program (QPP), Merit-based Incentive Payment System (MIPS), and/or Alternative Payment Models (APMs).
“What’s the destination? Where am I headed? Implementation is about picking your destination and knowing where you’re going and then working your way backwards on how to get there.”

—DR. RANDALL WILLIAMS, CARDIOLOGIST, DIGITAL HEALTH FOUNDATION

Practice Spotlight

Amidst the many considerations associated with the implementation of digital health—patient privacy, clinical workflow, financial viability, etc.—it’s tempting to approach one step at a time, while neglecting to consider the larger picture.

When executing a digital health solution in the treatment of diabetes and hypertension, the implementation team at Froedtert & Medical College of Wisconsin knew it was important to envision what success looked like upfront. Otherwise, they risked being derailed by several items, including how quickly to react to patient shared data, how to design and coordinate cross team workflows, as well as how to demonstrate the value of using the tool to patients. As a result of beginning with the end in mind, they now have promising data to demonstrate the benefit of digital solutions, which is encouraging patients and the organization to think beyond current care delivery models in favor of a more digitally enabled, patient-centric approach.

IMPLEMENTATION TEAM, FROEDTERT & MEDICAL COLLEGE OF WISCONSIN
Step 4: Evaluating the Vendor

Evaluate possible vendors across key criteria that will enable your goals.

Go into the process with the intent of finding someone who will be a long-term partner and not just someone to execute a transaction. Select a shortlist of quality vendors by speaking with organizations or practices similar to yours. Alternatively, attending health care technology conferences like HIMSS (and local HIMSS chapters), TEDMED, Connected Health, Health 2.0 or Rock Health; collaborating with a health care accelerator or incubator; or leveraging the AMA’s Physician Innovation Network\textsuperscript{12} to connect with one of 400+ companies, can expose you to possible vendors and practical solutions.
WHY EVALUATING THE VENDOR IS IMPORTANT

Select a vendor who is worthy of a long-term partnership.

This ensures you will have:

- An expert resource always on hand in challenging situations
- Support throughout your implementation process, from start to finish (and beyond)
- A partner who is equally motivated as you to achieve a successful outcome

GOALS TO ACCOMPLISH DURING EVALUATING THE VENDOR

- Research potential vendors
- Build a Request for Proposal (RFP), clearly outlining the goals you identified in Step 3
- Send RFPs to vendors that most closely align to your goals
- Review RFP responses alongside key representatives from the Core and Advisory teams
- Ask for case studies and referrals
- Schedule live vendor demos with select members of the Core, Advisory and Implementation teams
- Narrow your options to one or two preferred vendors to include in your pitch to leadership
Evaluating the Vendor

**BEST PRACTICE**

Evaluate vendors across six key variables to find your best partner.

(Appendix D.2) If you’re struggling to identify a vendor that’s right for you, consider engaging external resources, such as the Medical Group Management Association (MGMA), Lucro Solutions, or the Xcertia mHealth App Guidelines, for support.

<table>
<thead>
<tr>
<th>BUSINESS:</th>
<th>INFORMATION TECHNOLOGY:</th>
<th>SECURITY: (APPENDIX D.3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Organizational overview – tenure, funding source, financial stability, affiliations, notable customers, etc.</td>
<td>• Ability to integrate with your current IT landscape, particularly your EHR system</td>
<td>• HIPAA compliance and process for ensuring protection of confidential patient information</td>
</tr>
<tr>
<td>• Impact to program ROI – product cost, business model, reimbursement rates, risk sharing, support payment program participation, etc.</td>
<td>• Cost, process, and timeline associated with integration and product updates</td>
<td>• Liability and process for managing potential security breaches</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>USABILITY:</th>
<th>CUSTOMER SERVICE:</th>
<th>CLINICAL VALIDATION:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• User experience of device and interface for patients and care team members</td>
<td>• Level of support available to practice during and after implementation—staff training, patient education, project management, data analysis and insights, etc.</td>
<td>• Documented clinical outcomes</td>
</tr>
<tr>
<td>• Patient and care team engagement metrics</td>
<td>• Degree of technical support available to patients</td>
<td>• Published peer-reviewed research</td>
</tr>
<tr>
<td>• Ability to engage with and encourage participation from patients</td>
<td>• Degree to which this technology/vendor will reduce disruption to existing workflow</td>
<td></td>
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</tbody>
</table>
QUICK TIP

Test technology with a patient advocate or staff member unfamiliar with the project.

A technology may be too complicated for patients if your test user cannot operate the equipment or process on their own without the help of vendor training.

AVOIDING A MISSTEP

Do your due diligence.

Don’t rely on the sales pitch to provide all the information you need. Ask for case studies and referrals to support the pitch, and ask to speak with the product engineers and existing customers to gain a realistic picture of the process to integrate this solution into your organization.

SMALL PRACTICE CALLOUT

Value-adds make a big difference for a small group.

If you are worried about not having the internal resources to support your implementation, talk with vendors about value-added services they may be able to provide, such as project management, staff and patient training, patient engagement management, etc.

LARGE PRACTICE CALLOUT

Anticipate scale from the beginning of your project.

Discuss expectations about when and how you intend to scale your program. If you are hoping to scale a program to a large number of patients, consider whether vendors have the resources and infrastructure to support a large-scale rollout within your expected time frame.

Practice Spotlight

Dr. B wanted to implement remote patient monitoring in her practice but was concerned that her low-income and low health-literacy patients may struggle with accessing and operating the technology necessary to use a remote patient monitoring solution successfully. To ensure she picked a solution that would work with her patient population’s specific needs, Dr. B was thoughtful and targeted with questions during vendor selection. In addition to the broad case studies provided in vendor pitches, Dr. B asked about their experience with different patient populations and how success rates varied with different socio-economic patient groups. Through this pointed questioning, Dr. B was able to narrow in on a vendor with a simple interface and low-tech requirements, which better suited her patient population’s needs. By contracting with the right vendor for her patients, Dr. B was able to set up her practice for success.

—DR. B, PRACTICING PHYSICIAN
Step 5: Making the Case

Compile the content you’ve gathered into a Leadership team proposal.

Share the problem you’ve identified, what success looks like, and the metrics you will use to keep the team informed of their progress. You will also introduce your recommendation to solving the problem, which vendor is most suited for the job based on the initial evaluations, and how partnering with them will deliver a positive ROI for the organization.
GOALS TO ACCOMPLISH DURING MAKING THE CASE

☐ Clearly define resources needed to move forward with this implementation (funds, additional staff, additional bandwidth, political support, official approval, etc.)

☐ Estimate the budget required to obtain the resources to implement your program including vendor services, equipment, marketing, education, EHR integration, additional personnel resources, etc.

☐ Estimate the value your solution will contribute to the organization if goals are achieved

☐ Calculate the ROI of your implementation considering the budget and value you’ve estimated

☐ Align your implementation with organizational objectives/goals to justify why this is a priority

☐ Research coding and payment available for your chosen digital health solution (Appendix E.1) and assess your liability and risk (Appendix E.2)

☐ Compile all necessary information in a proposal to the key decision-makers to obtain approval and resources to support your implementation

WHY MAKING THE CASE IS IMPORTANT

Making the case is integral to getting your organization on board.

Communicating your vision opens up the opportunity to:

- Gain valuable input to improve your program
- Secure funding
- Obtain program sponsors to champion the success of your program throughout the organization as you scale
Making the Case

AVOIDING A MISSTEP

Tailor your pitch to your stakeholders.

Different decision-makers will have varying priorities and motivators. Take time to consider what will be most motivational to your organization. Emphasize the ROI metrics that will resonate with your stakeholders. Consider how much detail you want to include and how much room for input you need to leave. If you’re not sure, consult peers at your organization who are familiar with the leadership approval process.

SMALL PRACTICE CALLOUT

Don’t skip this step even if official alignment isn’t necessary.

In a small practice, you may not need to pitch to a board of directors or your CEO for approval. However, thoroughly evaluating budget and ROI against your objectives will help determine which technological investments will have the largest impact on your practice. Thinking through key business elements of your project helps you strengthen your plan and increase your probability for success.

BEST PRACTICE

Use storytelling to engage others in your initiative.

Look for opportunities to share your passion and drive excitement around the project. Leverage your patient advisory board to strengthen your proposal. Share personal stories that led you to seek the implementation of this new technology that will bring the patient’s voice into the room. Convince the Leadership team that your program will add value to the organization.
QUICK TIP

Consider alternative methods of funding.

Come to leadership with a plan for how to fund the project, highlighting options beyond traditional funding through reimbursements (Appendix E.1). That could include creative external funding sources, such as government grants, accelerator sponsorships, or community support. For internal funding, consider where there is room in the budget and what departments might be willing to pitch in.

Practice Spotlight

“Innovation strategy needs to be fully aligned with corporate strategy and needs to be a multi-year commitment for it to work.”

—JUSTIN GERNOT, VICE PRESIDENT, HEALTHBOX

Obtaining alignment of the steering committee, who often authorize funding for new initiatives, is a common barrier associated with the implementation of remote patient monitoring.

Executive leadership must consider how a new proposal or business plan could impact the financial and operational health of the organization, making clinical outcomes only part of the overall decision criteria. To ensure proposals are viewed favorably by the board, Matthew Warrens of UnityPoint Health, always aligns his proposals to the strategic goals of the business. By doing this, Matthew is able to easily demonstrate the relevance of his recommendation to the success of the organization as a whole, which improves the probability that it will be approved. This approach also helps to generate enthusiasm for his program at the highest levels of the organization. This support is often helpful in navigating any future barriers and has helped speed the implementation of new technology, like remote patient monitoring.

—MATTHEW WARRENS, MANAGING DIRECTOR OF INNOVATION AT UNITYPOINT HEALTH

33
Step 6: Contracting

Lay the groundwork for a successful long-term vendor relationship.

Think beyond financial considerations to align on expectations for how you’ll work together and communicate. Discuss the level of support or training you’ll expect from them as your partner and think creatively about where they can provide additional value or share the risk with your organization. Ensure your negotiations are clearly captured in key legal documents that protect both you and your new partner.
WHY CONTRACTING IS IMPORTANT

A strong contract underpins a successful long-term relationship by providing:

- Aligned expectations
- Written, agreed upon terms to hold each party accountable
- Legal protection for you and your vendor

GOALS TO ACCOMPLISH DURING CONTRACTING

- Secure any remaining approvals within your organization to proceed with contracting
- Negotiate terms (financial investment, customer support, additional services, upgrade schedule, success metrics, etc.)
- Document clear and measurable definitions of success for your working relationship and the initiative at large
- Identify the timeline for the current contract and outline when terms will be renegotiated
- Clearly outline the plan to scale your program, and align on any relevant contingency plans
- Work with your legal, financial, procurement, or IT teams as necessary to get the contract signed (Appendix F.1)
Contracting

**BEST PRACTICE**

Think about your contract as a “Path to Commitment.”

If your original contract only covers an initial rollout of your solution, spend time talking with your vendor about what that larger contract will look like when you are ready to expand. Your scaling plan should consider each partner’s financial investments, timing considerations, and success metrics. Clear expectations upfront will help build a healthy, long-term partnership.

**AVOIDING A MISSTEP**

Plan ahead to avoid future delays.

Make sure you discuss how your organization intends to scale. Ensure your partner has the inventory and resources to keep up with your organization’s size and expected scaling speed. While there are many benefits to working with a startup, this is a particularly important area to align on upfront.

**QUICK TIP**

Negotiate beyond finances.

While your contract obviously needs to lay out the financial terms of the deal, you may also be able to negotiate for the inclusion of additional services and future upgrades. Ask about ways your vendor can provide support pre- and post-implementation (training, tech support, workflow design, collaboration, data analysis, project management, etc.).
SMALL PRACTICE CALLOUT

Explore external resources.

If you don’t have an internal legal and/or compliance team, you may want to invest in obtaining input from a compliance or legal expert.

Practice Spotlight

Many health care organizations struggle to adapt their contracting policies to meet the evolving work of digital health.

Consider Omada, a digital health developer of solutions aimed to prevent chronic disease, who is often presented with contracts that are subject to the same terms used for an $100MM EHR vendor. According to Carolyn Jasik, VP of Medical Affairs, “It’s like swatting a fly with a sledgehammer”. These rigid contracts can create months of red tape, delaying digital health adoption. As an alternative, Omada partners with health care organizations to “right-size” contracts by removing unnecessary traditional contracting language and adding in clauses that are specific to Omada's offering. By working together, they are able to bring technology into clinical practice faster and more successfully.

— CAROLYN JASIK, MD, VP OF MEDICAL AFFAIRS, OMADA HEALTH
As you move from planning to implementation, your path will require more detail specific to the digital health solution you have chosen to adopt. The remaining steps focus on the unique considerations necessary to implement a remote patient monitoring solution including the development of a modified workflow, education necessary to execute a remote patient monitoring solution, and how to measure success and expand the program.
Step 7: Designing the Workflow

Document an updated workflow for remote patient monitoring (RPM).

This will likely require changes to your current clinical protocols to ensure that you are efficiently managing your staff’s time amidst their new RPM responsibilities. Consider how to use your EHR to simplify communication and ensure staff members have access to resources and clinically relevant RPM data to execute and adapt patient care.
WHY DESIGNING THE WORKFLOW IS IMPORTANT

Remote patient monitoring often alters practice interaction with patients.

A clear workflow is vital to ensure everyone understands their role and how to maximize the value of RPM through procedures that:

- Streamline the patient experience to drive adherence and accurate data collection
- Manage and analyze incoming data
- Detect and report clinically relevant data to the appropriate care team members
- Facilitate clinical interventions and changes to care plans as necessary

GOALS TO ACCOMPLISH DURING DESIGNING THE WORKFLOW

- Engage the Implementation team (specifically, an IT representative) to provide input on workflow design
- Document your existing workflow
- Identify updated procedures necessary for RPM, such as patient identification, patient training, device management, data monitoring and analysis, interventions, and billing
- Define what data points are clinically relevant and protocols for how “clinically relevant data” will be identified and communicated to the appropriate care team members
- Ensure bandwidth to perform new responsibilities (streamline procedures, automate, outsource, hire new staff)
- Assign accountability for any new actions necessary for integration
- Document a new workflow that incorporates necessary changes across departments
- Engage your IT team and/or vendor to understand how to best integrate your workflow into your EHR
- Develop resources to support and socialize the new workflow (written procedures for each department, patient tracking documentation, communication templates)
- Collect staff feedback and iterate as necessary
Avoiding a Misstep

Protect physicians from an overwhelming influx of data.

Identify a process to quickly identify medically relevant data requiring their attention, by:

- Defining protocols and empowering staff to work at the top of their medical licenses, especially when it comes to patient engagement and initial data analysis
- Utilizing your vendor as a resource for data screening and analysis
- Partnering with third-party data analytics or monitoring service to identify clinically relevant data points and escalate based on protocols

Best Practice

Ensure your workflow addresses the RPM-specific requirements below.

Then, when adapting your organization-specific workflow, consult the Workflow Design Checklist in Appendix G.1 for specific considerations.

- Patient Engagement and Education: identifying and enrolling patients, tracking eligible patients, fielding patient phone calls, supporting patient troubleshooting, reminding patients to participate, etc.
- Device Management: inventory, distribution, tracking, cleaning, and calibration
- Data Monitoring: reviewing incoming data, discussing data with patients, flagging areas of concern, etc.
- Managing Interventions: making medical decisions based on data, reaching out in emergency situations, discussing medical changes with patients, etc.
- Coding and Billing: knowing codes available for RPM, integrating CPT codes into the EHR, understanding documentation requirements, etc.
“You have to intimately understand and appreciate how a process works from the perspective of the patient, providers, caregivers, and each operational stakeholder before you can improve or replace it.”

—OMID TOLOUI, VICE PRESIDENT OF DIGITAL HEALTH, CAREMORE

Practice Spotlight

When Froedtert and the Medical College of Wisconsin decided to implement remote patient monitoring for diabetes and hypertension, they needed to develop a complex workflow across multiple departments.

Representatives from each pivotal department assembled to collaboratively map the workflow. Each department’s specific role was defined, and standard communication templates were created to ensure consistent documentation and efficient handoffs between departments. Each department also created internal workflows that delineated specific communication procedures at each handoff point. One master workflow was compiled and communicated to ensure all departments understood how their actions impacted the other departments. The team continued to improve the workflow through weekly meetings.

—RACHEL DRURY, PHARM. D, AMBULATORY PHARMACY COORDINATOR AT FROEDTERT HEALTH

QUICK TIP

EHR integration is vital to the long-term success of your new RPM program.

Failure to integrate can lead to staff frustration and lower adherence to new procedures, so discuss the possibilities for integrating the RPM solution and your EHR with your vendor as soon as possible. By integrating your EHR and RPM solution upfront, you can remove barriers, such as manually tracking new procedures or entering RPM data into the patient record.

If immediate EHR integration is not feasible at your organization:

• Have a specific and timely plan for how and when integration will happen
• Identify phases of integration, if necessary, which will allow you to get basic functionality in a timely manner, even if full integration will come later
• Align with your vendor about when and how integration will occur
• Earmark funds to finance future integration
• Identify a temporary workflow that will allow your staff to manually transfer data into your EHR
• Be transparent with your staff about how and when the EHR integration will occur and how this will impact workflow

QUICK TIP

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Failure to integrate can lead to staff frustration and lower adherence to new procedures, so discuss the possibilities for integrating the RPM solution and your EHR with your vendor as soon as possible. By integrating your EHR and RPM solution upfront, you can remove barriers, such as manually tracking new procedures or entering RPM data into the patient record.

If immediate EHR integration is not feasible at your organization:

• Have a specific and timely plan for how and when integration will happen
• Identify phases of integration, if necessary, which will allow you to get basic functionality in a timely manner, even if full integration will come later
• Align with your vendor about when and how integration will occur
• Earmark funds to finance future integration
• Identify a temporary workflow that will allow your staff to manually transfer data into your EHR
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Failure to integrate can lead to staff frustration and lower adherence to new procedures, so discuss the possibilities for integrating the RPM solution and your EHR with your vendor as soon as possible. By integrating your EHR and RPM solution upfront, you can remove barriers, such as manually tracking new procedures or entering RPM data into the patient record.

If immediate EHR integration is not feasible at your organization:

• Have a specific and timely plan for how and when integration will happen
• Identify phases of integration, if necessary, which will allow you to get basic functionality in a timely manner, even if full integration will come later
• Align with your vendor about when and how integration will occur
• Earmark funds to finance future integration
• Identify a temporary workflow that will allow your staff to manually transfer data into your EHR
• Be transparent with your staff about how and when the EHR integration will occur and how this will impact workflow
Step 8: Preparing the Care Team

Thorough workflow and technical training lead to successful RPM integration.

Provide technical training on the remote monitoring system, new workflow procedures, and patient engagement materials. Ensure everyone knows their role and responsibility for utilizing remote patient monitoring to achieve the success metrics outlined in Step 3 (Defining Success).
WHY PREPARING THE CARE TEAM IS IMPORTANT

Successful implementation of an RPM solution is a team effort.

Your team will serve on the front-line, reviewing clinical data and engaging patients, so it is important for them to know their role and responsibilities within the implementation (Appendix H.1). Proper staff preparation ensures:

- Staff understand the importance of the program and are motivated to participate
- Staff understand their key responsibilities in achieving aligned success metrics
- New procedures are understood, correctly followed, and documented
- Data is collected, analyzed, and presented to physicians in a clinically relevant manner
- Staff are prepared to impart the skills, knowledge, and mindset patients will need to be successful with the program

GOALS TO ACCOMPLISH DURING PREPARING THE STAFF

- Talk with your vendor about available training support
- Identify staff leaders who can help develop, position, and socialize training materials
- Identify “superusers” who can act as ongoing trainers for other staff
- Develop (or source from your vendor) written and/or video training materials (scripts, guides, reference documents) that staff can use and refer back to
- Schedule large group training session(s)
- Plan for how and when training will be refreshed/reviewed
- Educate staff on the new workflow, clinical protocols, and operation of the RPM solution
- Train staff to educate patients (see Step 9: Partnering with the Patient for tools)
- Provide a process/opportunity for staff to provide ongoing feedback or ideas for improvement
Preparing the Care Team

**BEST PRACTICE**

Train staff from the perspective of the care team and patient.

Because RPM is a technological solution, create a realistic training environment for care team members to operate devices, access portals, troubleshoot, and answer questions from the perspective of a care team member and a patient. This will ensure they have well-rounded exposure to execute the clinical workflow and support patients in using their remote monitoring system. Your vendor may also be able to provide or support this training.

**AVOIDING A MISSTEP**

Incorporate staff feedback to secure and maintain buy-in.

Depending on the input you receive, be open to further optimizing your workflow to address relevant feedback from your end users.

**SMALL PRACTICE CALLOUT**

Many vendors provide resources for staff training and support.

When bandwidth is limited, consider partnering with your RPM vendor to provide in-person educational sessions and training materials.

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**QUICK TIP**

Appoint a staff “superuser” to provide ongoing training and support.

This person should have an advanced understanding of the RPM technology and updated workflow to support staff as needed.
Practice Spotlight

A CEO at a multi-hospital system knows that obtaining input from staff facilitates acceptance of new initiatives.

In response to staff “pushback,” she engages them to participate in the solution. For instance, when staff expressed concerns about standardizing a clinical protocol across multiple sites, she organized small group meetings of direct peers from different sites. These groups were charged with recommending alternative process changes that would reach the same stated outcome—systemwide standardization—while maintaining positive quality and patient satisfaction scores. The protocol was then modified to reflect staff recommendations. “Health care workers have a strong sense of peer accountability. They are motivated to improve versus their peers. They don’t want to fail if another department or organization is succeeding,” she says. Furthermore, participating staff feel ownership over the change, and take on leadership roles to educate their teams and advocate for buy-in.

“This is a must-have. Otherwise, the program will result in failure.”

—CEO, MULTI-HOSPITAL SYSTEM

—DR. JEET BARMECHA, CHIEF INFORMATION OFFICER, ST. BARNABAS HOSPITAL
Step 9: Partnering with the Patient

Strategically engage patients to maximize the impact of RPM.

Many RPM solutions require daily, active participation from patients. Ensure that they’re prepared through a patient-centered initiation process. As you plan to educate patients about the program, ensure there is adequate time to set expectations, answer questions, and discuss how remote monitoring can assist them in reaching their goals.
WHY PARTNERING WITH THE PATIENT IS IMPORTANT

Remote patient monitoring relies on patient engagement.

Thorough preparation is vital to ensuring that patients:

- Are confident with the technology
- Participate and generate accurate data
- Know how their data will contribute to their care
- Feel empowered to troubleshoot issues they encounter

GOALS TO ACCOMPLISH DURING PARTNERING WITH THE PATIENT

- Develop (or source from your vendor) a wide variety of patient training materials to support different learning styles
- Develop clear “what if” scenarios to inform how the patient should respond to their readings (Appendix I.1)
- Finalize eligibility criteria for RPM program participation
- Apply your eligibility criteria to identify eligible patients (EHR/Population Health database query, staff or physician identification/recommendation, etc.)
- From your set of eligible patients, identify those patients who are “likely to succeed”
- Plan to introduce eligible patients to the program at their next appointment or through direct communication (i.e., phone call, email, or direct mailer)
- Identify how you will enroll interested patients
- Finalize training protocols and materials for patients to participate in the program
- Ensure you are prepared to initiate workflow to distribute and activate monitoring devices to patients
Partnering with the Patient

BEST PRACTICE

Make the program about the patient.

Use techniques like motivational interviewing to understand patient goals and generate excitement around how remote patient monitoring will help them reach those goals and identify what will motivate them to continue participating in their care. Consider having a care team member follow up with patients or engaging caretakers to keep patients accountable and help with using the device and transmitting data. Consider how your vendor can support patient engagement or provide additional customer service.

AVOIDING A MISSTEP

Even with the best training, expect patients to need occasional assistance.

Prepare patients to deal with issues they might encounter by:

• Helping patients understand the difference between technical and clinical concerns
• Providing direct vendor contact information for technical concerns, if possible
• Setting expectations about what their data will look like and what data points are normal vs. cue the need for medical intervention
• Providing visual materials which are specific, clear, and concise to refresh their training
• Reviewing training at their next several appointments
QUICK TIP

Identify eligible patients who are also “likely to succeed.”

When identifying ideal patients for an initial RPM implementation, consider more than just their clinical eligibility (i.e., BP exceeding 130/80mmHg). You also want to identify those who are likely to succeed. Look for patients who are already engaged in their care plan, seeking opportunities to improve, and can independently operate a smartphone or computer (proxy for their tech savviness). Especially for elderly patients, consider the ability to remember tasks and whether they have a caretaker who can support any technical skills. For more information on establishing patient eligibility criteria, visit the Federally Qualified Health Center’s RPM tool kit.14

Practice Spotlight

To ensure a patient is successfully on-boarded to their new remote patient monitoring (RPM) program, CareMore Health has developed a 3-step process that leverages their clinical model, dedicated RPM team, and vendor partnerships to ensure an optimal experience and outcomes.

First, patients are informed of the benefits of the program, enrolled, and educated on how to use the RPM equipment at a CareMore Care Center. Immediately following enrollment, a package containing the patient’s equipment and brief instructions is mailed to the patient’s home. Using package tracking, the dedicated RPM team is notified as soon as the package is received by the patient. Lastly, a phone call is made by the CareMore RPM team to officially welcome the patient into the RPM program and advise on what to expect and how to best use the devices. During the call, essential topics are reviewed, such as device set-up, how to take proper readings, and how to contact the RPM team for technical or clinical needs. Dedicated RPM clinical staff (Nurse Practitioners and Registered Nurses) continually engage the patient, especially when a potential exacerbation of their condition is detected. As a result, a strong personal connection is established through the RPM team that gives the patient the dedicated clinical support needed while also freeing up the Care Center clinical team.

—OMID TOLoui, VP DIGITAL HEALTH STRATEGY & ALLIANCES, CAREMORE

“For the patient, training is sort of a tipping point that helps a person go from ‘I’m not doing this’ or ‘I have fears about doing this’ into ‘I’m ready to do it. Now I have the information, the training, the support. I know how to do it. I’m not afraid of it. My questions have all been answered. I’m ready to go.’ And then they’re ready to walk through the door and do it.”

—TIMI R., REMOTE MONITORING E-PATIENT AND FAMILY ADVOCATE
Step 10: Implementing

Launch your program and execute your plan.

Put your new workflows to the test. Particularly with RPM, you’ll focus your energy on supporting patients as they onboard, managing incoming data, and communicating results to physicians in a clinically relevant way. You’ll also need to monitor the impact of your program by tracking your key success metrics. Ensure you collect feedback from staff and patients and iterate as necessary.
GOALS TO ACCOMPLISH DURING IMPLEMENTING

- Get baseline numbers for your success metrics to compare against later
- Officially launch the program with your identified eligible patients
- Support patients with any technical or data connection issues during onboarding
- Schedule follow-ups with patients to address any issues with their device or data transmission
- Ensure patient data is being monitored as intended in your workflow design
- Act on incoming data to improve patient outcomes, whether through emergency interventions or adjustments to care plan
- Solicit feedback from staff and patients; adjust procedures as necessary
- Ensure you are tracking key success metrics

WHY IMPLEMENTING IS IMPORTANT

This is the payoff for all your hard work!

During this initial implementation, you’ll finally see your RPM system in action. Celebrate the work that has gone into the process thus far and recognize how this phase will allow you to:

- Better understand and communicate with your patients about their condition and care in between appointments
- Improve patient outcomes through earlier clinical intervention
- Generate data to validate your program’s value to the organization
- Demonstrate success to justify scaling the program
Implementing

BEST PRACTICE

Don’t take shortcuts because you’re working within a smaller scope.

Design the initial implementation of remote patient monitoring as if you were launching it full scale across your organization. Although it may take more planning upfront, it will ease the expansion of your program in the future.

AVOIDING A MISSTEP

Schedule on-site support from your vendor or IT team.

Especially early on in an RPM implementation, the ability to troubleshoot technical challenges quickly is key; otherwise, you may lose engagement from patients and care team members. Work with your vendor or IT team to ensure that your staff and patients can get the timely support they need while adjusting to the program.

QUICK TIP

Set up weekly feedback sessions with your vendor, IT, and care teams

Address any potential challenges early by setting up regular meetings to check in with those who are integral to successfully executing the plan. Ensure you have a process for collecting feedback from staff and patients and funneling that feedback to the appropriate teams for adjustment.
Health care technology is evolving at lightning speeds. It can be difficult to keep pace with innovation and deliver cutting-edge, value-based care when implanting new programs through a lengthy formal implementation process. To address this barrier, Dr. Katie Richardson, and her team, leverage ‘Tech Tryouts’. These 12-week feasibility studies are designed to quickly evaluate functionality, ease of use, engagement and clinical potential. After the ‘Tryout’, the team meets with the project manager to evaluate the technology through key metrics set out at the start of the project. At which point they decide whether the data warrants: 1) immediate regional rollout, 2) further evaluation to determine if longer-term outcomes can be achieved, or 3) dissolution because the technology did not meet their needs or expectations. By holding themselves to a strict timeline and evaluation protocol, the team is able to quickly and efficiently adopt digital health solutions more quickly and efficiently.

—DR. KATIE RICHARDSON, HEALTHCARE INNOVATION LEADER AT COLORADO PERMANENTE MEDICAL GROUP
Step 11: Evaluating Success

Determine your program’s success by revisiting your goals.

Focusing on the key success metrics you identified in Step 3 (Defining Success), relevant data points you’ve collected will allow you to determine whether you’ve achieved success. In addition to hard metrics, such as increased productivity and clinical outcomes, remember to consider how remote patient monitoring has impacted patient and staff satisfaction, patient behavior, and compliance with treatment as a result of patients being more active in their care. If you haven’t hit your goals, determine if this is due to an issue with the remote monitoring technology, patient engagement, or the organizational implementation. Then, look for opportunities to restructure the program for improvement.

If you are achieving success, compile your most compelling data to justify scaling your program for greater impact.
WHY EVALUATING SUCCESS IS IMPORTANT

Validate your program’s success to secure its future.

In order to determine the next step for your program, you have to know how it’s performing. Use RPM-generated data to evaluate patient outcomes and engagement. Combine this with observed impacts to satisfaction, financial, and operational measures to determine:

- Whether to scale the program to expand benefits of RPM to more patients
- How to rework the program to better perform against key metrics
- The most persuasive measures to justify continued or expanded funding

GOALS TO ACCOMPLISH DURING EVALUATING SUCCESS

- Gather data used to track your key success metrics
- Collect feedback from your Implementation team (Appendix J.1)
- Determine your success by comparing this data to the pre-implementation baseline
- If failing to meet goals, revisit your process to identify hurdles to success; rework and iterate as necessary
- If succeeding, gather compelling success metrics into an expansion proposal
- Consult your Core and Leadership teams to determine the program’s future
- Align on goals for next iteration or phase of the program
Evaluating Success

BEST PRACTICE

Measure success against your initial goals.

Hold yourself accountable to the goals you set at the beginning of the project to determine if you’re achieving success. Aligning to these metrics provides objectivity and enhances buy-in since key decision-makers are already aligned with these goals. Your performance against these goals should provide clear direction on your next steps.

AVOIDING A MISSTEP

Re-evaluate and iterate to reach success.

If you are not hitting your goals after your initial implementation, take the time to evaluate why the program is struggling. Rather than scrap the program entirely, go back through the previous steps to identify the root of any problems and consider if and how you can rework the program for success.
“You need to stick to metrics and really define your goals upfront. I think that’s one of our big issues with evaluating success, sometimes we forget to come back to it.”

—DR. RACHEL C., PCP, SCL HEALTH

Practice Spotlight

The implementation of any new technology can be mistaken as a linear, forward-only process.

That said, organizations who support a culture of feedback and continual improvement are often far more successful. For example, when the team at AMITA Health launched RPM for ICU patients, they performed daily huddles with the physician and nursing end users to evaluate and improve the program and clinical process. In doing so, two opportunities were identified: the need for additional education for the on-site APNs and added clarity on EHR documentation among the remote physicians. In response, the APNs received additional training on the role of remote physician, which improved adoption, buy-in, and acceptance of the program. The clarification of physician documentation increased compliance with note writing and order entry to 100%, and, overall, the handoff process improved.

—LAURA MESSINEO, SYSTEM DIRECTOR, TELEHEALTH STRATEGY AND DEVELOPMENT, AMITA HEALTH

QUICK TIP

Clinical success can be slow to measure.

It may take six months or longer to prove the clinical results of your program. In the meantime, lean on more immediate measures of success, such as staff and patient satisfaction, to confirm if the program is having an impact. With an RPM system, patient engagement with the technology or data can be a key metric that patients like the program and feel it offers a tangible benefit.
Step 12: Scaling

As you scale, focus on growing smart, not fast.

Leverage your success metrics to position your program for expansion. Consider other areas remote patient monitoring can improve your practice. Is there a new patient population you’d like to reach? Another department or location? Once you identify your target for expansion, circle back to Step 7 (Designing the Workflow). Evaluate possible workflow changes to accommodate a larger program, then proceed through the remainder of the steps, modifying your program as needed.
GOALS TO ACCOMPLISH DURING SCALING

- Resolve any improvement opportunities identified in the initial implementation
- Socialize the success of the RPM program throughout your organization to generate enthusiasm
- Select your next scaling prospect (i.e., new disease state, new department, more patients, etc.)
- Budget and secure financing for growth
- Negotiate the next phase of your partnership with your vendor
- Adjust workflows to account for program growth
- Retrain staff or train new staff to account for program growth
- Engage, enroll, and train new patients
- Continue tracking key success metrics for ongoing impact

WHY SCALING IS IMPORTANT

Don’t allow your initial implementation to die in the “Pilot Graveyard.”

Adopting an organized scaling process maintains the momentum you’ve generated with RPM and provides the opportunity to:

- Negotiate better pricing on RPM devices and services due to higher volume
- Apply initial implementation learnings to continuously improve the program
- Improve management of chronic disease, patient engagement, and resulting health outcomes
- Reduce cost through more efficient patient care
- Improve organizational performance against quality and patient satisfaction metrics
Avoid redundant labor and centralize RPM administration.

RPM can be used on a variety of disease states and patient populations. Prevent creating siloed programs requiring similar yet separate resources. Instead, standardize the RPM across your organization. Consider designing a common assessment to gauge patient risk and fit with remote monitoring, centralizing data analysis, developing training templates that can be customized rather than created from scratch, or identifying a dedicated monitoring program staff rather than adding this role to existing staff within the care team.

Avoiding a Misstep

Scale in small, manageable batches.

Develop an iterative scaling approach that allows you to re-evaluate your process as the program grows. It may take several rounds of gradual expansion before RPM is integrated throughout your entire organization. However, the iterative Plan, Do, Study, Act growth process allows you to address any remaining challenges for an efficient and effective expansion.
“You can’t achieve impact without scaling a solution across all relevant patients. This type of iterative scaling allows you to roll it out responsibly across the organization.”

—NIKO SKIEVASKI, CO-FOUNDER AND PRESIDENT, REDOX

Practice Spotlight

Following a successful initial implementation, the team at Massachusetts General Hospital took a “hiatus,” or a pause, to thoroughly evaluate lessons learned and gather evidence to generate a strong use case for scaling the program broadly.

While the vendor had been a strong collaborator to date, institutional knowledge and internal credibility, not a sales pitch, was needed to appeal to the Executive team for approval and funding. Therefore, they presented their proposal and use case among an exclusively internal team. Once approved, initial results distributed to the organization via email garnered excitement among other departments and helped identify the next wave of participation. Finally, a streamlined pricing structure and security assessment were negotiated into an organization-wide contract to diminish remaining barriers to implementation. As a result, four additional departments have integrated the use of this technology into their daily operations.

—MICHAEL PANDOLFI, PROJECT MANAGER
AT MASSACHUSETTS GENERAL HOSPITAL
This Playbook is a living document that will be updated to include new content over time.

As the Playbook evolves, it will provide helpful frameworks and resources for your practice related to specific digital health solutions.

We look forward to your feedback, welcome your shared stories about implementing RPM, and ask for your input on what digital health solutions should be featured next!

Contact us at digital.health@ama-assn.org.

If you are currently interested in learning more about our AMA digital health initiatives, you can find more resources at the AMA’s digital health website (https://www.ama-assn.org/delivering-care/digital-health-leadership).
Thank you to the following organizations for their generous contribution of time and expertise, without which, this Playbook would not be possible.
Part 4: Post-game – Resources

The following resources have been developed to support your digital health implementation based on the steps detailed in this Playbook. These resources include additional information, helpful tables and charts, and interactive worksheets that you can print out or modify to suit your organization’s needs.
APPENDIX A / IDENTIFYING A NEED
A.1: Idea Intake Form
A.2: Idea Prioritization Worksheet

APPENDIX B / FORMING THE TEAM
B.1: Team Structure Framework
B.2: Team Structure Worksheet
B.3: When to Engage Your Teams

APPENDIX C / DEFINING SUCCESS
C.1: Using the Quadruple Aim to Establish Value of a Digital Health Solution
C.2: S.M.A.R.T. Goals Overview

APPENDIX D / EVALUATING THE VENDOR
D.1: Selecting a Vendor Guide
D.2: Vendor Information Intake Form
D.3: Cybersecurity 101: What You Need to Know

APPENDIX E / MAKING THE CASE
E.1: Navigating Digital Medicine Coding and Payment
E.2: Digital Medicine Liability and Risk: What You Need To Know

APPENDIX F / CONTRACTING
F.1: Key Financial and Legal Documents

APPENDIX G / DESIGNING THE WORKFLOW
G.1: Key Considerations When Designing an Implementation Workflow

APPENDIX H / PREPARING THE CARE TEAM
H.1: RPM Clinical Roles and Responsibilities

APPENDIX I / PARTNERING WITH THE PATIENT
I.1: “What If” Plan for Patients

APPENDIX J / EVALUATING SUCCESS
J.1: Lessons Learned Worksheet
APPENDIX A.1: IDENTIFYING A NEED

Idea Intake Form

Use this worksheet to gather feedback from your staff and care team members to identify concrete areas where your organization could improve.

What areas are most frustrating about your job?

What could we do to make your job easier?

Drawing from your experience with patients, what could we do to make patients’ lives better?

How might you address one of these opportunity areas if given the resources to do so?

What’s the most important thing we should do this year?
If you are considering multiple opportunities to improve, it’s important to review and prioritize them based on your organization’s strategic priorities.

Use this resource to help you prioritize and select what area of opportunity you’ll address using digital health technology.

**What are current areas of opportunity at your practice? List all areas of opportunity below.**

**Now prioritize your areas of opportunity based on pain points and your organization’s strategic priorities.**

**Select one area of opportunity that aligns with your organization’s strategic priorities.**

**How might you address this opportunity area if given the resources to do so?**

**What are you hoping to achieve? What will success look like?**
Although every organization may have their own team needs, below is the suggested team organizational structure for a digital health implementation.

It’s possible that one person may sit on multiple teams. For example, a Core team member may also be on the Implementation team, or a Leadership team member may also be on the Advisory team.

### Team Structure Framework

<table>
<thead>
<tr>
<th>CORE TEAM</th>
<th>LEADERSHIP TEAM</th>
<th>ADVISORY TEAM</th>
<th>IMPLEMENTATION TEAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>The team that is responsible and accountable for putting together the plan and driving the project forward day to day</td>
<td>High-level decision-makers who authorize key decisions, provide budgetary approval, and whose alignment is important for wide-scale success</td>
<td>A group of advisors for the Core team to consult for perspective and guidance and ensure the team’s decisions and leadership proposal are strategically sound</td>
<td>Close-to-the-ground teams in impacted departments who will be informed of the plans and ultimately carry out the day-to-day process of implementation</td>
</tr>
<tr>
<td>• Clinical Representative(s) (physician, nurse, etc.)</td>
<td>• Board of Directors</td>
<td>• End Users:</td>
<td>• Nurse Manager</td>
</tr>
<tr>
<td>• Administration Representative(s) (practice manager, administrator)</td>
<td>• C-suite Executives</td>
<td>• Practicing care team members</td>
<td>• Additional Priority Department Representatives</td>
</tr>
<tr>
<td>• Information Technology or Information Security Representative(s)</td>
<td>• Practice Owners/Partners</td>
<td>• Patient Advisory Board/Patients/Caregivers</td>
<td>• Superuser to provide on-the-ground technical support</td>
</tr>
<tr>
<td>• Project Manager(s)</td>
<td></td>
<td></td>
<td>• Information Technology or Information Security Representative(s)</td>
</tr>
<tr>
<td>• Priority Department Representatives</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**End Users:**
- Practicing care team members
- Patient Advisory Board/Patients/Caregivers

**Organizational Navigation:**
- A program sponsor
- Retired Leadership team members
- Benefactors
Team Structure Worksheet

Use this worksheet to establish who is a part of each of your teams.

Write in your team members’ names on the lines under the appropriate team below. You can use this worksheet to remind yourself of the important players throughout your implementation process and to schedule meetings accordingly.

<table>
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<td>High-level decision-makers who authorize key decisions, provide budgetary approval, and whose alignment is important for wide-scale success</td>
<td>A group of advisors for the Core team to consult for perspective and guidance and ensure the team’s decisions and leadership proposal are strategically sound</td>
<td>Close-to-the-ground teams in impacted departments who will be informed of the plans and ultimately carry out the day-to-day process of implementation</td>
</tr>
</tbody>
</table>
Below is a chart to help you understand when to engage each team across the steps in the digital health implementation process.

<table>
<thead>
<tr>
<th>Step</th>
<th>Core</th>
<th>Leadership</th>
<th>Advisory</th>
<th>Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 / Identifying a Need</td>
<td>✔️</td>
<td></td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>2 / Forming the Team</td>
<td>✔️</td>
<td></td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>3 / Defining Success</td>
<td>✔️</td>
<td></td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>4 / Evaluating the Vendor</td>
<td>✔️</td>
<td></td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>5 / Making the Case</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
<td>✔️</td>
</tr>
<tr>
<td>6 / Contracting</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Using the Quadruple Aim to Establish Value of a Digital Health Solution

A helpful way to organize the goals for your digital health solution is to organize success criteria by the Quadruple Aim of Healthcare.

In doing so, your implementation is more likely to deliver value to the organization, result in a positive ROI, and set you up for success when Making the Case in Step 5.

Below are some specific areas of value to consider when you and your organization are defining the success of your implementation.

<table>
<thead>
<tr>
<th>HEALTH OUTCOMES</th>
<th>PATIENT EXPERIENCE</th>
<th>REDUCED COSTS</th>
<th>PROVIDER SATISFACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved:</td>
<td>Improved:</td>
<td>Reduced:</td>
<td>Reduced:</td>
</tr>
<tr>
<td>❑ Health outcomes</td>
<td>❑ Patient satisfaction</td>
<td>❑ Cancellations</td>
<td>❑ Manual/redundant tasks</td>
</tr>
<tr>
<td>❑ Compliance with standards of care</td>
<td>❑ Patient engagement</td>
<td>❑ Labor costs</td>
<td>❑ Burnout</td>
</tr>
<tr>
<td>❑ Insight about population health</td>
<td>❑ Convenience of care</td>
<td>❑ Cost per case</td>
<td>❑ Turnover rate</td>
</tr>
<tr>
<td>❑ Quality of life</td>
<td>❑ Care plan compliance</td>
<td>❑ Costs due to readmission penalties</td>
<td></td>
</tr>
<tr>
<td>Reduced:</td>
<td>❑ Complications</td>
<td>❑ Non-reimbursable and ER visits</td>
<td></td>
</tr>
<tr>
<td>❑ Mortality rate</td>
<td>❑ Patient-to-care team ratio</td>
<td>❑ Number of bed days if admitted to the hospital</td>
<td></td>
</tr>
<tr>
<td>❑ Hospital admissions/ER visits</td>
<td>❑ Access to care</td>
<td></td>
<td></td>
</tr>
<tr>
<td>❑ Appeal/loyalty to the organization</td>
<td>❑ Care plan compliance</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Improved:
- Opportunities for reimbursements
Developing S.M.A.R.T. goals sets you and your team up for success during your digital health implementation.

**S.M.A.R.T. Goals Overview**

<table>
<thead>
<tr>
<th>S</th>
<th>M</th>
<th>A</th>
<th>R</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SPECIFIC</strong>&lt;br&gt;Who, What, Where, When, Why, Which</td>
<td><strong>MEASURABLE</strong>&lt;br&gt;From and To</td>
<td><strong>ATTAINABLE</strong>&lt;br&gt;How</td>
<td><strong>RELEVANT</strong>&lt;br&gt;Worthwhile</td>
<td><strong>TIMELY</strong>&lt;br&gt;When</td>
</tr>
<tr>
<td>Define the goal as much as possible with no ambiguous language.</td>
<td>Can you track the progress and measure the outcome?</td>
<td>Is the goal reasonable enough to be accomplished? How so?</td>
<td>Is the goal worthwhile and will it meet your needs?</td>
<td>Your objective should include a time limit: “I will complete this step by month/day/year.”</td>
</tr>
<tr>
<td>WHO is involved, WHAT do I want to accomplish, WHERE will it be done, WHY am I doing this (reasons, purpose), WHICH constraints /requirements do I have?</td>
<td>How much, how many, how will I know when my goal is accomplished?</td>
<td>Make sure the goal is not out of reach or below standard performance.</td>
<td>Is each goal consistent with other goals you have established and does each goal fit with your immediate and long-term plans?</td>
<td>It will establish a sense of urgency and prompt you to have better time management.</td>
</tr>
</tbody>
</table>

There are many factors to consider when evaluating and selecting a health care technology vendor.

Use the criteria below to guide your evaluation of each vendor under consideration, so you can make a comprehensive and informed decision when selecting a partner.

On the following pages, you will find a sample vendor-information request form, which can be sent directly to your vendor or used as a guide to create your own form.

<table>
<thead>
<tr>
<th>BUSINESS</th>
<th>IT</th>
<th>DATA SECURITY/PRIVACY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of service</td>
<td>Ease/cost of integration with existing technology</td>
<td>HIPAA/HITECH compliance</td>
</tr>
<tr>
<td>Business model</td>
<td>Customization</td>
<td>Third-party audits</td>
</tr>
<tr>
<td>Ability to demonstrate ROI</td>
<td>Connectivity</td>
<td>(SOC 2, HITRUST)</td>
</tr>
<tr>
<td>Reimbursement rates</td>
<td>Patient access to data</td>
<td>Penetration testing for software and device</td>
</tr>
<tr>
<td>Financial viability</td>
<td>EHR integration</td>
<td>Liability structure</td>
</tr>
<tr>
<td></td>
<td>Updates and maintenance process</td>
<td>User authentication and authorization</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Transparency on collected data use practices</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CUSTOMER SERVICE</th>
<th>USABILITY</th>
<th>EFFICACY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-launch support</td>
<td>Data accuracy</td>
<td>Previous results</td>
</tr>
<tr>
<td>Ongoing clinical support</td>
<td>Device ease of use for patients</td>
<td>Case studies or testimonials</td>
</tr>
<tr>
<td>Patient training</td>
<td>Dashboard/workflow assimilation</td>
<td>Peer-reviewed literature/clinical evidence</td>
</tr>
<tr>
<td>Patient support</td>
<td>Front/back-end user interface</td>
<td>Ability to deliver on your organization’s goals, metrics, and KPIs</td>
</tr>
<tr>
<td>Data analysis</td>
<td>Multi-disease state application</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cross-system interoperability</td>
<td></td>
</tr>
</tbody>
</table>
BUSINESS INFORMATION

Company Name and Corporate Structure (LLC, B-Corp, C-Corp, etc.):

Company Category:

- Population Health
- Clinical Decision Support
- Medical Device
- Big Data/Analytics
- Personalized Medicine/Precision Medicine
- Telemedicine
- Patient Education/Self-Care
- EHR Interoperability
- Other

Company Size and Stage of Development:

Current Number of Customers:

Current State of Financial Viability:

In a few sentences, describe your company and your main value proposition:


What differentiates you from your competitors?
INFORMATION TECHNOLOGY

Does your product directly integrate with our EHR or do we need to copy/paste patient information from your dashboard to our EHR? If we have the option, how much more does EHR integration cost?

What changes will I need to make to my health IT network to accommodate software or hardware to support your service?

In a few sentences, walk us through your process of integrating with organizations’ existing technology (EHR, PACS, etc.).

What types of customization features exist?

Do patients have access to their personal data?

- Yes
- No

How do you manage connectivity issues? What backup plans are in place should we experience a connectivity issue/downtime?
DATA SECURITY/PRIVACY

Please provide documentation of:

- HIPAA and HITECH compliance
- Any possible third-party audits, including SOC 2 or HITRUST
- Results of penetration testing

How will your product keep my patients’ information private—both in my office and at the patients’ home?

How will your product ensure that my patients’ information is securely transmitted?

How does your service manage user authentication and authorization?

What privacy and security safeguards are included with your service, i.e., cloud-hosted services? (Note that privacy and security safeguards are required by HIPAA.)

What process do you have in place to mitigate cyberthreats, i.e., attacks on the software your products run on?
DATA SECURITY/PRIVACY (CONT.)

What process is in place for updates, security patches, and ongoing maintenance?

Does your product or service utilize hardware or software that is considered a medical device by the Food and Drug Administration (FDA)?

How do you manage device cybersecurity?

If my patients have privacy and security questions who should they contact?

Who else will have access to my patients’ data? Is it collected and/or shared in a hub or repository?

What process is available to export patient data if I choose to discontinue using your digital health technology service?
CUSTOMER SERVICE

Please select which of the following services you provide:

- Pre-launch support
- Staff training
- Staff support
- Patient training
- Patient support
- Data analysis

Help us understand what each of these services specifically entail.

Do any of these services cost extra beyond a basic package? If so, which services?

Please provide 1–3 references of current users we can contact to learn more about your customer service.
**USABILITY**

In a few sentences, please describe how you verify device and data accuracy.

In what form would we receive your data in (e.g., raw data, out-of-parameter alerts, treatment recommendations)?

If applicable, can your program be run on any device or is it device-specific?

- [ ] Software is device-specific
- [ ] Software can be run on multiple devices

Please list devices:

We will need to test the front- and back-end user experience with our internal team. Are you able to provide a demo for our team?

- [ ] No
- [ ] Yes

Please list who to contact to set up a demo:
**Efficacy**

Describe the significant problem your company is trying to address.

How does your product or service address the problem?

Please provide 1–3 case studies demonstrating results either below or in an attachment.

Our goal is to (insert your specific goal(s)),

which we’re measuring by (insert key measurement(s)).

How will your company help deliver on our goal(s)?
Is there any additional information you would like to provide that is not already included in this form?

Please submit any supporting documentation that you feel would be beneficial (Executive Summary, Pitch Deck, Company Website, Demo Video)
The AMA’s research\(^1\) on cybersecurity indicates that physicians are increasingly recognizing the importance of good cyber hygiene in their practices.

The increased industry focus on digital health technology underscores the need for practices to consider how they will keep their patients’ protected health information (PHI) private and secure. Generally, once outside data is incorporated into the patients’ electronic medical record, it becomes PHI. Physicians are responsible for the privacy and security of PHI under the Health Insurance Portability and Accountability Act of 1996 (HIPAA).

**WHAT YOU NEED TO KNOW ABOUT CYBERSECURITY ATTACKS:**

- Cybersecurity is not just a technical issue; it’s a patient safety issue.
- 4 out of 5 physicians\(^i\) have experienced some form of cyberattack.
- While inappropriate employee use and disclosure of PHI (e.g., inappropriate sharing or selling of patient information) is more of a concern among large health systems, phishing and viruses are the most common types of cyberattacks in small practices.

**WHAT YOU NEED TO KNOW ABOUT HOW CYBERSECURITY CAN AFFECT YOUR PRACTICE/ORGANIZATION:**

- Cyberattacks can cause interruptions in practice operations, compromised electronic health records (EHR) security, and direct threats to patient well-being.
- 2 out of 3 physicians have experienced downtime of up to 4 hours because of a cyberattack; 1 in 10 have experienced downtime of up to 2 days.

**WHAT YOU NEED TO THINK ABOUT WHEN IMPLEMENTING TECHNOLOGY:**

Your practice’s health information technology (health IT) network\(^iii\) is comprised of several different components and it is important to consider all of them when figuring out how to securely implement new technology. For example, not only are your practice’s internet connection and EHR part of your network but also things like copiers, telephones, and practice management systems. You must also consider how a new digital health solution/service will impact your health IT network. Physicians need to look at their networks holistically to ensure that all the “entry” and “exit” points for information coming in and out of the practice are effectively protected.

Only 20% of small practices have internal security officers, so they typically rely on health IT vendors for security support. Physicians should understand basics about cybersecurity\(^iv\) so that they are well-informed enough to ask vendors the right questions. Such knowledge will help to equip physicians with the autonomy they need to confidently implement new technologies into their practice.
Cybersecurity 101: What You Need to Know (Cont.)

WHAT YOU NEED TO KNOW ABOUT REGULATION:

- Cybersecurity is not just a technical issue; it’s a patient safety issue.
- Implementing a new digital health technology in your practice may require you to conduct or update a HIPAA security risk assessment.v
- However, HIPAA compliance is not necessarily enough to protect PHI. Information might come into your practice through medical devices and patient apps—for example, a remote patient monitoring (RPM) service. HIPAA doesn’t apply to medical device manufacturers or patients, so physicians must be extra diligent when evaluating how to incorporate information from those sources.
- Medical devices, like computer systems, can be vulnerable to security breaches, potentially impacting the safety and effectiveness of the device. Medical device manufacturers and health care facilities should take steps to ensure appropriate safeguards.
- The Food and Drug Administration (FDA) does not conduct cybersecurity premarket testing for medical devices.vi

Testing is the responsibility of the device manufacturer. Manufacturers are responsible for remaining vigilant about identifying risks and hazards associated with their devices, including risks related to cybersecurity. They are responsible for putting appropriate mitigations in place to address patient safety risks and ensure proper device performance.

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INTRODUCTION

Determining whether there is coverage and payment for digital medicine services and technologies that you want incorporated into your practice will require research and a plan.

This resource is designed to highlight several digital medicine services covered and paid separately by Medicare on the Physician Fee Schedule (Medicare Part B) beginning January 1, 2019. Commercial health insurers and government health care programs may have very different coverage policies as well as different payment amounts. However, both commercial and state Medicaid programs are influenced by Medicare’s policies, so it is anticipated that other health insurers will expand coverage as well.

AMA DIGITAL MEDICINE PAYMENT ADVISORY GROUP

The Digital Medicine Payment Advisory Group (DMPAG), convened by the AMA, includes a diverse cross-section of leading experts who identify barriers to digital medicine adoption and propose comprehensive solutions for coding, payment, and coverage while also identifying clinical validation literature and evidence. While payment for digital medicine is a work in progress, significant gains have been made in 2018 as Congress and the Centers for Medicare & Medicaid Services (CMS) have authorized coverage of a number of digital medicine services and modalities beginning January 1, 2019.

OVERVIEW DIGITAL MEDICINE SERVICES AND PAYMENT

This resource will provide information on the digital medicine services summarized below, which are covered by Medicare regardless of location. Effective January 1, 2019, physicians are able to offer the following covered services in their practice:

- Chronic care remote physiologic monitoring (CPT codes 99453, 99454, and 99457)
- Brief communication technology-based service, e.g. virtual check-in (HCPCS code G2012)
- Remote evaluation of pre-recorded patient information (HCPCS code G2010)
- Interprofessional internet consultations (CPT codes 99451, 99452, 99446, 99447, 99448, and 99449)
REMOTE PATIENT MONITORING (RPM)

Effective January 1, 2019, a combination of RPM codes will be covered by Medicare on the Physician Fee Schedule\(^1\). The RPM codes may also be used in combination with other service codes as detailed below.

CPT CODE 99091

Effective January 1, 2018, Medicare began coverage and payment for the collection and interpretation of physiologic data digitally stored and/or transmitted by the patient and/or caregiver to the physician or other qualified health care professional.

| CPT CODE 99091 | Collection and interpretation of physiologic data (e.g., ECG, blood pressure, glucose monitoring) digitally stored and/or transmitted by the patient and/or caregiver to the physician or other qualified health care professional, qualified by education, training, licensure/regulation (when applicable) requiring a minimum of 30 minutes of time, each 30 days) |

ADDITIONAL COVERAGE REQUIREMENTS FOR THE USE OF CPT CODE 99091 INCLUDE:

- Advance patient consent: practitioners must obtain advanced consent for the service and document in the patient’s record.
- In-person visit prior to service: for new patients or patients not seen within the year by billing practitioner, service must be initiated during an in-person visit.
  - Includes evaluation/management services (levels 2-5), preventative physical exam, translational care management.
  - Does not include virtual face-to-face visit utilizing other online or telehealth modality.
- 30-day reporting period: billing limited to once in a 30-day period.
- Use with other services: billing is permitted for the same service period as chronic care management (CCM) (CPT codes 99487-99490), transitional care management (TCM) (CPT codes 99495-99496) and behavioral health integration (BHI) (CPT codes 99484, 99492-99494).

\(^1\) When remote patient monitoring services are offered by a home health agency, the Medicare payment differs. If offered by a home health agency, remote patient monitoring is defined as the collection of physiologic data (for example, ECG, blood pressure, or glucose monitoring) digitally stored and transmitted by the patient or caregiver or both to the home health agency. If remote patient monitoring is used by the home health agency to augment the care planning process, the costs of the equipment, set-up, and service related to this system are allowable only as administrative costs. Visits to a beneficiary’s home for the sole purpose of supplying, connecting, or training the patient on the remote patient monitoring equipment, without the provision of a skilled service are not separately bill. These services cannot be included as an allowable cost under the Medicare home health prospective payment system and the Medicare Physician Fee Schedule for the same Medicare beneficiary for the same services rendered.
CPT CODES 99453, 99454, 99457

The AMA’s CPT Editorial Panel created three additional remote chronic care management codes, which effective January 1, 2019, are included for coverage and payment by Medicare. These codes represent modern practices and account for both the professional service, clinical staff time, and practice expenses.

The codes are described below:

<table>
<thead>
<tr>
<th>CPT Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>99453</td>
<td>Remote monitoring of physiologic parameter(s) (e.g., weight, blood pressure, pulse oximetry, respiratory flow rate), initial; set-up and patient education on use of equipment. (Initial set-up and patient education of monitoring equipment)</td>
</tr>
<tr>
<td>99454</td>
<td>Device(s) supply with daily recording(s) or programmed alert(s) transmission, each 30 days. (Initial collection, transmission, and report/summary services to the clinician managing the patient)</td>
</tr>
<tr>
<td>99457</td>
<td>Remote physiologic monitoring treatment management services, 20 minutes or more of clinical staff/physician/other qualified health care professional time in a calendar month requiring interactive communication with the patient/caregiver during the month. (Interpretation of the received data and interaction with patient on a treatment plan by a clinician)</td>
</tr>
</tbody>
</table>

ADDITIONAL COVERAGE REQUIREMENTS FOR THE USE OF THESE CPT CODES INCLUDE:

- Advance patient consent: practitioners must obtain advanced consent for the service and document in the patient’s record.
- 30-day reporting period: billing limited to once in a 30-day period.
- Use with other services: billing is permitted for the same service period as chronic care management (CCM) (CPT codes 99487-99490), transitional care management (TCM) (CPT codes 99495-99496), and behavioral health integration (BHI) (CPT codes 99484, 99492-99494).
- The Medicare program will be issuing additional guidance on the type of remote patient monitoring technology that will be permitted under 99454.
- CPT code 99457 and 99091 may not be billed together for same billing period and beneficiary.
VIRTUAL CHECK-IN

CMS has created a new service code to support virtual check-ins by patients with their existing physician or other qualified health care professional (HCPCS code G2012).

These services are the kind of brief check-in services furnished using communication technology that are employed to evaluate whether or not an office visit or other service is warranted. When the check-in services are furnished prior to an office visit, then the Medicare program considers them to be bundled into the payment for the resulting visit, such as through an evaluation and management (E/M) visit code. However, in cases where the check-in service does not lead to an office visit, then there is no office visit with which the check-in service can be bundled. Therefore, Medicare will cover and pay for such services to the extent these are medically necessary and reasonable.

| HCPCS G2012 | Brief communication technology-based service, e.g. virtual check-in, by a physician or other qualified health care professional who can report evaluation and management services, provided to an established patient, not originating from a related E/M service provided within the previous 7 days nor leading to an E/M service or procedure within the next 24 hours or soonest available appointment; 5-10 minutes of medical discussion |

ADDITIONAL COVERAGE REQUIREMENTS FOR USE OF THIS CODE INCLUDE:

• Advance patient consent: practitioners must obtain advanced consent for the service and document in the patient’s record.
• This service is only covered for established patients.
• The technology that can be used by the patient includes real-time audio-only telephone interactions and synchronous, two-way audio interactions that are enhanced with the video or other kinds of data transmission.
• There are no frequency limitations.
• Telephone calls that involve only clinical staff cannot be billed using this code.
**REMOTE EVALUATION OF PRE-RECORDED PATIENT INFORMATION**

CMS has created a new service code to support remote evaluation of recorded video and/or images submitted by an established patient.

| HCPCS G2010 | Remote evaluation of recorded video and/or images submitted by an established patient (e.g., store and forward), including interpretation with follow-up with the patient within 24 business hours, not originating from a related E/M service provided within the previous 7 days nor leading to an E/M service or procedure within the next 24 hours or soonest available appointment |

**ADDITIONAL COVERAGE REQUIREMENTS FOR USE OF THIS CODE INCLUDE:**

- Advance patient content: practitioners must obtain advanced consent for the service and document in the patient’s record.
- This service is only covered for established patients.
- Services may involve pre-recorded patient-generated still or video images and used to determine whether or not an office visit or other service is warranted.
- Follow-up with the patient could take place via phone call, audio/visual communication, secure text messaging, email, or patient portal communication and must be compliant with HIPAA.
- Service is distinct from the virtual check-in service in that this service involves the practitioner’s evaluation of a patient-generated still or video image transmitted by the patient, and the subsequent communication of the practitioner’s response to the patient.
INTERPROFESSIONAL INTERNET CONSULTATION

Interprofessional Internet Consultation codes have the potential to enhance quality and coordination of care while overcoming the persistent shortages of medical specialists. Medicare provides coverage and payment for the following codes:

<table>
<thead>
<tr>
<th>CPT CODE</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>99446</td>
<td>Interprofessional telephone/Internet assessment and management service provided by a consultative physician including a verbal and written report to the patient’s treating/requesting physician or other qualified health care professional; 5-10 minutes of medical consultative discussion and review</td>
</tr>
<tr>
<td>99447</td>
<td>Interprofessional telephone/Internet assessment and management service provided by a consultative physician including a verbal and written report to the patient’s treating/requesting physician or other qualified health care professional; 11-20 minutes of medical consultative discussion and review</td>
</tr>
<tr>
<td>99448</td>
<td>Interprofessional telephone/Internet assessment and management service provided by a consultative physician including a verbal and written report to the patient’s treating/requesting physician or other qualified health care professional; 21-30 minutes of medical consultative discussion and review</td>
</tr>
<tr>
<td>99449</td>
<td>Interprofessional telephone/Internet assessment and management service provided by a consultative physician including a verbal and written report to the patient’s treating/requesting physician or other qualified health care professional; 31 minutes or more of medical consultative discussion and review</td>
</tr>
<tr>
<td>99452</td>
<td>Interprofessional telephone/Internet/electronic health record referral service(s) provided by a treating/requesting physician or qualified health care professional, 30 minutes).</td>
</tr>
</tbody>
</table>

ADDITIONAL COVERAGE REQUIREMENTS FOR USE OF THIS CODE INCLUDE:

- Advance patient consent: practitioners must obtain advanced consent for the service and document in the patient’s record.

*This guide will be updated over time to reflect changes in additional guidance that CMS is expected to provide for these highlighted services. All questions concerning CMS requirements, should be addressed to the relevant Medicare contractor in your region. In addition to this guide, consider reviewing the National Consortium of Telehealth Resource Centers and the utilizing resources from the Telehealth Resource Center in your region.
INTERPROFESSIONAL INTERNET CONSULTATION

When adopting any new technology, you will need to understand and assess your liability and risk. Some common legal risks and liability questions associated with digital medicine include:

- Medical liability
- Licensing
- Consent
- Privacy and security

Best practices to apply to understand liability and mitigate risk when implementing digital health solutions include:

- Check to see whether or not your malpractice carrier covers digital health practices under your current policy. Some carriers may require disclosures of these practices to receive coverage.
- Know your state laws around various types of digital medicine. Different states may have different definitions or case law as it relates to the licensing, practicing digital health, and consent. States differ as to whether you need to have an established physician-patient relationship prior to performing telemedicine (and potentially other digital health solutions) and may also have different requirements for informed consent related to telemedicine and telehealth.
- Determine whether you will need to update any informed consent forms. All conversations with patients regarding digital health solutions should be an open, two-way discussion about the benefits, risks, alternatives, and potential consequences in choosing to use (or not) digital health solutions.
- Digital health solutions can be negatively impacted by loss of internet or power, software incapability, interrupted or slow internet transmissions, and more. Delays in care without proper back-up plans can result in serious consequences to patients. To reduce potential liability, it’s beneficial to have a plan in place in case the digital health solution fails and to discuss the plan and alternatives with patients.
- Protect yourself and your organization/practice during the contract process with your future vendor partner. Some contract provisions that relate to liability include:
  - **Indemnity clause** - The clause manages and apports risk between contracting parties. It should specify under what conditions each party must compensate the other party for unintentional harms, claims, or other liability. You can manage and minimize your risk by limiting your overall or total liability to a manageable amount through a specific dollar cap, the amount of your investment, or other ways.
  - **Choice of Law Provision** - This clause dictates what state, federal, or international laws the contract operates under. Make sure you are comfortable with the state or country chosen.
- Technology has increased connectivity and collaboration in all facets of the healthcare delivery systems, so particular attention should be paid to the cybersecurity practices at your organization as well as with your future digital health vendor.
Key Financial and Legal Documents

Below is a list of key financial and legal documents that may be necessary for your contracting process.

**LEGAL DOCUMENTS**

- **Business Associate Agreement:** An agreement ensuring all entities associated with the business who will interact with private health information are HIPAA compliant. This agreement also outlines liability should a data breach occur.
- **Master Service Agreement:** A contract outlining the business relationship as a whole, specifically the terms that will oversee future transactions and agreements, thereby simplifying future negotiation processes.
- **Scope of Work/Price Quote:** A contract outlining the details of the specific work to be done, including timing, expectations, key deliverables, and payment terms.
- **Purchase Order:** A document outlining the types, quantities, and prices for products and services a buyer is purchasing.
- **Financial Audit Reports:** Documents outlining the financial health of the organization.
- **Confidentiality Agreement/Non-Disclosure Agreement:** A document outlining the confidential information and documents to be shared with the vendor but not with any third parties.
- **W-9 Form:** A tax form used to record a vendor’s tax identification number for proper income reporting at the end of the year.

**VALIDATION DOCUMENTS**

- **IT Security and Risk Assessment:** An assessment of the vendor’s security and data processes.
- **510(k) Clearance:** Authorization from the FDA that a device is safe and effective or at least “substantially equivalent” to what is already on the market.
- **Liability Insurance:** Protects the insured should they be accused of wrongful practices resulting in bodily injury, medical expenses, and property damage, as well as the cost of defending lawsuits related to such claims.
- **Medical Licenses for Practitioners:** Documentation from your health care organization to your vendor documenting your practitioners’ ability to practice medicine and utilize digital health solutions.
- **Third-party HIPAA Audit:** An auditing report to provide validation of HIPAA compliance.
Although each organization’s workflow will look different, there are key questions and criteria to keep in mind when building an RPM-inclusive workflow.

Below are the key questions and criteria to keep in mind:

<table>
<thead>
<tr>
<th>PATIENT ENGAGEMENT AND EDUCATION</th>
<th>DEVICE MANAGEMENT</th>
<th>DATA MONITORING</th>
<th>MANAGING INTERVENTIONS</th>
<th>CODING AND BILLING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification</td>
<td>RPM Devices</td>
<td>Data Records, Transmission, and Management</td>
<td>Interventions</td>
<td>Managing Coding and Billing</td>
</tr>
<tr>
<td></td>
<td>How will monitors be distributed?</td>
<td>Who is responsible for preparing, managing, and analyzing RPM data?</td>
<td>In what format does staff share data with physicians (e.g., individual readings, averages, alerts, etc.)?</td>
<td>Who will keep track of developing reimbursement policies?</td>
</tr>
<tr>
<td></td>
<td>How many monitors will be needed?</td>
<td>When, how, and where will staff document RPM data?</td>
<td>When does staff share data with physicians (e.g., before scheduled appointments, weekly, etc.)?</td>
<td>When will cases be sent for reimbursement?</td>
</tr>
<tr>
<td></td>
<td>If loaned, how long may patients keep monitors?</td>
<td>How will patients record/share data back with the care team?</td>
<td>What are the thresholds for clinical intervention?</td>
<td>Who will manage reimbursement paperwork?</td>
</tr>
<tr>
<td></td>
<td>How will monitors be delivered to patients?</td>
<td>Who will discuss data with patients?</td>
<td>How will clinical thresholds be tracked?</td>
<td>Who will track reimbursement status?</td>
</tr>
<tr>
<td></td>
<td>How will devices be calibrated and tested for accuracy?</td>
<td>When will data be discussed with patients?</td>
<td>What is the protocol for intervention?</td>
<td>Who will work with insurance companies to ensure billing is correct?</td>
</tr>
<tr>
<td></td>
<td>What controls are in place if patients do not return devices?</td>
<td>How will success metrics be tracked?</td>
<td>Who will follow up on rejected reimbursements?</td>
<td>Who will communicate with patients about insurance status?</td>
</tr>
<tr>
<td></td>
<td>How will devices be inventoried, managed, and cleaned when necessary?</td>
<td>How often will data (patient and organizational) be reported?</td>
<td>Who will work with insurance companies to ensure billing is correct?</td>
<td>Are the appropriate codes available in the EHR system?</td>
</tr>
<tr>
<td></td>
<td>Where will devices be physically stored?</td>
<td></td>
<td></td>
<td>Do the care team members know what documentation is required for RPM billing?</td>
</tr>
<tr>
<td></td>
<td>How will device issues and malfunctions be handled?</td>
<td></td>
<td></td>
<td>When can you bill for RPM services?</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>How will you ensure eligible and interested patients are covered?</td>
</tr>
</tbody>
</table>
Use this as a resource to understand how different members of the care team contribute to your remote patient monitoring program and how to maximize their role by ensuring physicians and staff are working at the top of their license.

Keep in mind—the entire care team can generate excitement with the patient and encourage engagement!

**PHYSICIAN/PROVIDER**

- Identify and refer patients for RPM
- Diagnose and treat patients
- Create and sign off on care plans
- Review data in agreed-upon increments unless abnormal
- Make decisions on when to start and stop RPM

**NURSE/CARE MANAGER**

- Patient education
  - Review proper technique (blood pressure, pulse, checking glucose level, etc.)
  - Assess educational needs and health literacy
  - Test device and technique with patients
  - Set expectations with patients on when/how to escalate symptoms and concerns related to device readings
- Ongoing care management of patients
  - Set goals and a plan for care coordination
  - Monitor RPM readings
  - Assess and triage patient readings, symptoms, and concerns (both in office and via phone/email/patient portal communication)
  - Patient outreach for engagement
- Inform physician/providers
  - Provide patient data at agreed-upon time intervals (i.e., every two weeks)
  - Prepare physician/provider for any upcoming patient visit with recent data
  - Escalate abnormal results as defined by protocols

**MEDICAL ASSISTANT OR PATIENT CARE TECH**

- Device tracking (inventory planning, sign out, sign in)
- Device maintenance
- Patient education on how to use the RPM device
- Ongoing patient troubleshooting related to device use

**PRACTICE MANAGER**

- Support MA or PCT with inventory ordering/tracking
- Create and run reports on metrics for success
- Interface between care team and administrative needs to achieve success (i.e., IT, supply chain, etc.)
This is an example of "What if" documentation, which helps guide patients about how to react to the reading they see through their RPM system. We recommend positioning these types of resources to patients as an action plan, so your patients know when they’re okay, when to contact their doctor, and what to do in case of emergency.

**EXAMPLE ACTION PLAN**

<table>
<thead>
<tr>
<th>Patient Name:</th>
<th>Date of Birth:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provider Name:</td>
<td>Phone:</td>
</tr>
</tbody>
</table>

### ALL IS NORMAL/NO NEED FOR CONCERN

**WHAT IF?**  
(Set relevant readings or symptoms)  

**...THEN**  
(Detail appropriate patient actions, e.g., proceed as normal, retake reading in an hour, etc.)

### PROCEED WITH CAUTION

**WHAT IF?**  
(Set relevant readings or symptoms)  

**...THEN**  
(Detail appropriate patient actions, e.g., take medication, schedule appointment within a week, etc.)

### REASON FOR CONCERN, SEEK MEDICAL ATTENTION

**WHAT IF?**  
(Set relevant readings or symptoms)  

**...THEN**  
(Detail appropriate patient actions, e.g., schedule appointment within 24 hours, go to the ER, call 911)
Use this worksheet to gather feedback from your Implementation team following the initial implementation to identify lessons learned and opportunities for improvement as you plan to scale your remote patient monitoring program.

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>What were the strongest and weakest aspects of your implementation?</td>
<td></td>
</tr>
<tr>
<td>Were you surprised by unanticipated challenges or resistance from physicians, staff, and/or patients?</td>
<td></td>
</tr>
<tr>
<td>Were the teams you assembled engaged? Did any one individual become an unexpected champion for RPM?</td>
<td></td>
</tr>
<tr>
<td>What was the team’s attitude toward the implementation/process? Has anything changed from pre- to post-implementation?</td>
<td></td>
</tr>
<tr>
<td>Was the care team prepared for the implementation of RPM?</td>
<td></td>
</tr>
<tr>
<td>If not, where did implementation break down and what caused the failure?</td>
<td></td>
</tr>
<tr>
<td>How can this be corrected as you scale?</td>
<td></td>
</tr>
<tr>
<td>Was there additional knowledge and/or gaps revealed during the initial implementation?</td>
<td></td>
</tr>
</tbody>
</table>
Lessons Learned Worksheet (Cont.)

Were there any unanticipated patient barriers?

Were any health IT barriers revealed?

Did RPM increase workload or streamline it?

What actions will you take next? Are there any adjustments needed prior to scaling?

What were your key takeaways from your initial implementation that you can apply to your expansion?

What is needed to solidify support for expansion (i.e., request additional funding, improve key metrics, project full organizational benefits, etc.)?

Notes


3 Digital health encompasses a broad scope of tools that engage patients for clinical purposes; collect, organize, interpret and use clinical data; and manage outcomes and other measures of care quality. This includes, but is not limited to, digital solutions involving telemedicine and telehealth, mobile health (mHealth), wearables (e.g., Fitbit), remote monitoring, apps, and others.


7 Healthbox Report: Remote Monitoring and Connected Care. (n.d.), https://blogapi.healthbox.com/api/v1/media/W1siZiIsIlwMTgvMDMvMDIvMjIvMDUvMDMvZTVhZDc1OTgtOGYyZi00OTItLTg4NjktZTwvOTvhN2RjNjkyL0hIYWx-0aGJvCBSZW1vdGUvTW9uaXRvcmlyZy8BSXVcncQucGRmIl1d?sha=9928248dc4129aea.


