

Remote Patient Monitoring Made Easy

By Chris Otto, SVP of MobileHelp Healthcare™, with excerpts from interviews with David Taylor, RN, and Mark Aspenson, CEO of Avery Telehealth

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Executive Summary

For many organizations, attempting to establish a full-scale program from the ground up can seem overwhelming – but it doesn't have to be. Based on feedback from successful RPM businesses, this white paper examines best-practice suggestions that work to create the foundation for a sustainable RPM program, from state-of-the-art technology solutions to higher quality patient care and a focus on return on investment (ROI).

The How To's: Implementing a Successful Telehealth Program

The ability to implement any new medical service begins with creating a solid business plan – from capital identification to personnel to potential patient populations. Beyond that, any plan should address potential implementation issues and concerns.

Based on feedback and research from prominent RPM businesses such as Avery Telehealth and other healthcare providers, the following 6 best-practice recommendations create the basis for a successful RPM program, and the foundation for the planning around its implementation:

- 1 Focus on program objectives and outcomes:** Avery Telehealth points to this as the most critical for consideration: demonstrating the program's value of investment and patient-focused efficacy.

The following questions should be addressed prior to planning:

- Will the program support a healthier patient population?
- Will patients understand their diagnosis better, and be able to manage it more consistently on their own?
- Will patients be more confident about the long-term prognosis of their condition?
- How do we make RPM for itself?
- How do we ensure that the capital required to support an RPM program will drive financial value for the provider and/or payer?

Answering these questions can be aided by considering three key planning components:

- 1. Define and agree on what success means to your organization:** Without a target ROI or a large enough patient population, there might not be enough data to support "success." As such, it is critical to define what success means before beginning the program, and then further, how success will be measured.
- 2. Develop a clearly defined strategy:** The strategy should define the problems the RPM program is meant to solve, such that they are easy to refer to and measure. Equally important is a slow, sustainable growth path.
- 3. Identify and engage full range of stakeholders:** Stakeholders and key participants must be engaged early on and throughout the implementation process, including nursing staff, medical staff, administration, hospital leadership, patients, etc. Organizational awareness and education about the program will be essential to its success.

2 Select technology patients will want to use:

RPM nurses frequently comment that the best RPM program will break down on the front lines without patient engagement.

One fundamental component to engaging patients with technology is having a deeper understanding of the consumer (or patient) who will be using it.

Case in point: pharmacies with extensive consumer-based experience have successfully rolled out technology solutions for their customers. Preliminary research from the CVS Health Research Institute showed that patients who enrolled online at CVS.com, Caremark.com or CVSspecialty.com were more likely to fill their prescriptions and adhere to their medications .

And that isn't all: among CVS/Caremark™ members with common chronic conditions such as hypertension, **10 percent** more members improved their medication adherence to optimal levels after enrolling online at Caremark.com compared to members who did not enroll. In addition, CVS/Caremark clients could **save up to \$2.3 million** in medical cost avoidance annually per 100,000 registered users.

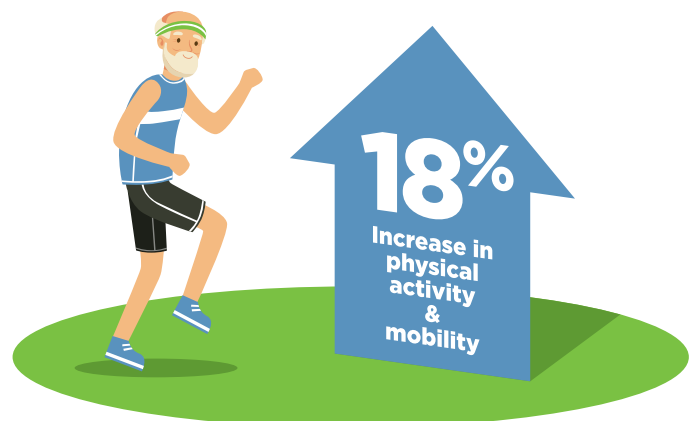
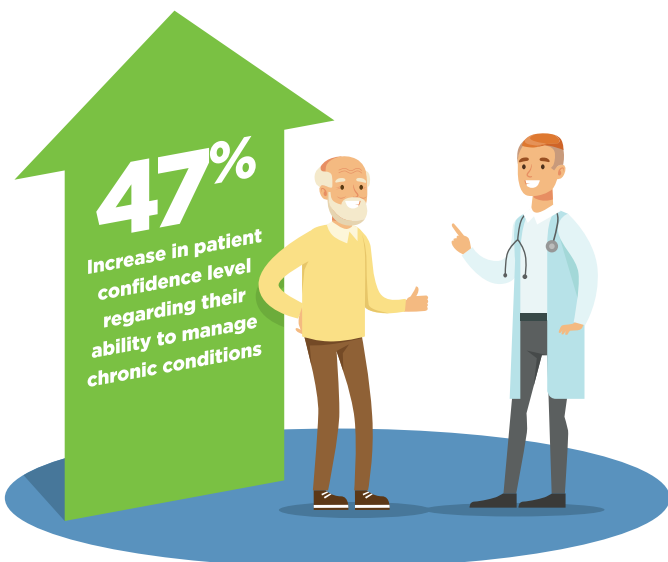
In assessing RPM solutions, vendor companies (such as MobileHelp®) with a strong foundation in understanding the consumer technology space can provide insight into the components needed to maintain the patient relationship in the long-term.

“One major differentiator is customer service,” said Chris A. Otto, SVP of MobileHelp Healthcare. “While most RPM companies are selling to hospitals, we understand patient engagement and can therefore provide extensive support for patient populations.”

For example, in one MobileHelp patient pilot program, use of a consumer-facing telehealth solution demonstrated highly successful results. Patients monitoring their own vital signs reported a 47 percent increase in confidence level regarding their ability to manage chronic conditions. Participants also reported an 18 percent increase in physical activity and mobility.

3 Create a program that is an extension of the current care model:

Like many rural-based RPM programs, the University of Mississippi Medical Center's program was designed to work with and empower community health providers to ensure patients can stay in their local area, receive the care they need, and provide assistance to the local care providers as they deliver medical services.



They utilize remote patient monitoring as an extension of that care model, and give participating patients a tablet and connected devices to ensure they can stay in touch with both local medical facilities as well as nurses at the University of Mississippi Medical Center. As part of the program, patients check in on their tablet once a day, take vital sign readings, and participate in an education session. They receive a contact call if they fail to check in or if their vitals fall out of an accepted range.

After the first six months following implementation of the program, the results indicated high degrees of success: medication adherence rose from the Mississippi average of **60 percent to 96 percent**, and adherence to the educational sessions hit 83 percent. They detected nine cases of diabetic retinopathy they otherwise would have missed. And participants lost a total of **91 pounds**, despite weight loss not being an explicit part of the study.

By creating a program that fit precisely within the overarching care model, they were able to implement a highly successful RPM program that delivered better quality care, improved patient outcomes and kept people in their local areas.

4 Create a clear patient enrollment plan:

Creating clear inclusion or exclusion criteria that automatically enrolls defined patient populations to an RPM program is recommended. According to Mark Aspenson, CEO of Avery Telehealth, “Not all patients would receive optimum benefits from RPM services, so creating guidelines to identify the right subset of patients is inherent to success.”

Consider the following patient inclusion criteria:

- Patients with chronic conditions such as: CHF, diabetes, hypertension, COPD or asthma
- Patients with two or more hospitalizations during the previous 12 month period
- Patients with frequent ER admissions
- Patients with a documented history of non-compliance
- Patients with a documented history of falls in the prior six months

Avery Telehealth uses these guidelines to automatically enroll patients in its RPM program – who are then given the choice to opt out rather than opt in. Within its program – which has included thousands of patients over the course of five years – they have had significant results in terms of readmission reductions. For example, among the CHF population, Avery has seen readmission rates reduced by **as much as 65 percent**.

“One common pitfall we have seen is the lack of clear enrollment criteria,” said Mr. Otto. “When the enrollment decision is left to an individual, the program is perceived as ‘optional,’ and we typically see low enrollment and inconsistent outcomes as a result.”

The Visiting Nurses Association (VNA) of Rockford in Illinois provides another example of how automatic enrollment can provide a consistent level of care to specific high-risk patient populations: they looked to secondary diagnoses and co-morbidities in choosing patients for RPM.

The VNA introduced a program which identified high-risk CHF patients who could benefit from RPM in both short- and long-term timeframes. Even though a subset of cardiac patients treated for CHF weren't typically eligible for home health care services under Medicare guidelines, the VNA staff recognized that in most cases, RPM could work to keep those patients from being readmitted to the hospital.

To that end, they developed a patient risk assessment at intake and put any patient with CHF on home health care services, regardless of whether they qualified for home health care services under Medicare guidelines or not.

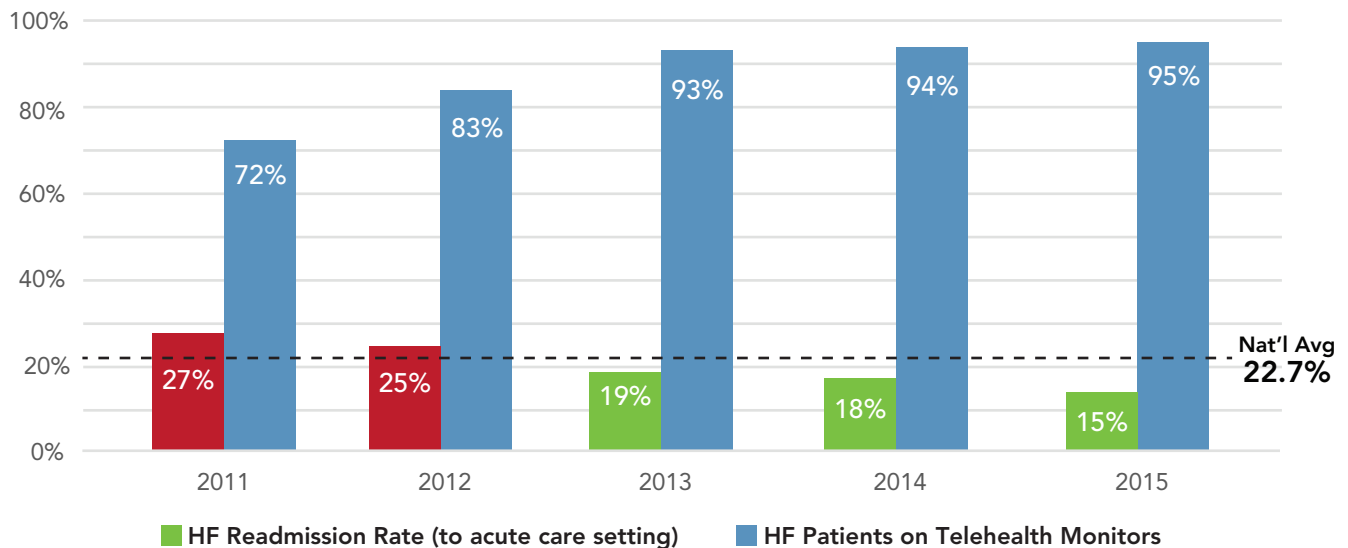
In addition, they identified the following as automatic enrollees in their RPM program:

- Patients recently discharged following cardiac surgery
- Patients with advanced, chronic illness
- Patients with numerous co-morbidities

The VNA notes that they were able to measure highly successful results within the program participants, as they watched the readmission rates for high-risk CHF patients drop to about **15 percent**, from the prior all-time-high rates of **27 percent**. With a national average **cost per re-hospitalization of approximately \$13,000**, their program was able to deliver significant savings for the hospital.



VNA Telehealth Success Improving Readmission Rates



Automatic enrollment ensures:

- Maximizes target population participation (and ROI)
- Lessens the work load of intake nurses – with all patients who meet the criteria receiving RPM, there is no need for personnel to assess specific situations
- Streamlines the RPM distribution process
- Provides equity in care across patient populations

While not all patients can participate in an RPM program, the most successful programs strive to support the majority of the population in need with careful planning, right down to the discharge process.

5 Have a realistic outlook on the number of resources needed: One of the most frequent suggestions from companies who work in the RPM space is the need for dedicated personnel to handle the requirements surrounding implementation of an RPM program.

According to Mr. Aspenson, “It’s easy to focus on just the technology of the RPM program and underestimate the work it requires to implement the accompanying program. Almost all successful programs have a full-time coordinator responsible for myriad duties, from making sure devices are working properly, to removing obstacles for those who are not yet using the program, to demonstrating the value of the program to executives within the organizational structure. The person filling this role must have skill, passion and a commitment to serve.”

In addition to a program coordinator, organizations must provide staff to handle remote patient exceptions as they occur. The value of an RPM program is that compliant patients measuring within normal ranges require no action, but those patients “in exception” require staff to triage patients and take action.

“Many organizations attempt the ‘dipped toe’ approach to a new RPM program,” said Mr. Otto. “While it is advisable to start small, it will ultimately be more successful if the program doesn’t depend on stretching the roles of existing case managers to field exceptions and make phone calls, in addition to their normal duties.”

If organizations cannot identify the resources to add headcount, some RPM vendors – such as MobileHelp and Avery Telehealth – offer outsourced triage services on a “per patient per month” (pppm) basis. This allows a gradual adoption process by avoiding heavy investment in additional FTEs, helps to contain the program costs, and simplifies ROI determination and can scale to any size.

6 Ensure the program can be tailored to specific patient populations: Much like creating a program that is an extension of the care model, RPM programs should also be able to accommodate varying patient populations, with standards that are easily scalable and deployable, but with flexibility to allow individual patient needs to be supported.

This can be addressed through utilization of a comprehensive and well-rounded RPM solution that provides the basis for patient population support – from peripheral device selection to programmable educational opportunities.

The MobileHelp solution was created around this idea, and includes such features as:

- Full range of peripheral devices, from weight scales to blood pressure monitors to glucometers and pulse oximeter product options to manage a wide range of chronic conditions.
- Comprehensive solution which includes both RPM and medical alert technology – so patients can not only track and manage vital signs, but also get emergency help if they experience a fall or some other need for immediate care.
- A Tablet Base Station with touch screen, which features the company's MobileVitals® RPM solution for both patients and providers. The MobileVitals platform gives healthcare providers the capability to provide patients with the benefits of traditional remote patient monitoring for the reimbursable home health period. The tablet format allows for extensive patient education based on condition.
- Following the clinical RPM period, patients have the opportunity to keep the RPM equipment and shift to monitoring their own vital signs – allowing healthcare providers to essentially step out of the clinical care process – while giving patients the tools they need to engage more fully in their own care.

This comprehensive solution allows providers to implement an RPM program that can easily stretch within broader patient population sets to provide standardized mode of care and operations.

Mr. Otto concludes: “RPM has the potential to solve issues around access to care and healthcare costs, but the organization and stakeholders in particular must be fully bought into the strategy, development of the program, and they must see how the program will save money in order for it to thrive. Without measurable program criteria, a new RPM program will simply become an interesting pilot, as opposed to a new platform for the delivery of care.”

¹ CVS Health: <https://cvshealth.com/newsroom/press-releases/cvs-health-introduces-new-digital-pharmacy-tools-help-make-medication>

² University of Mississippi Medical Center, Rural Health Information Hub: <https://www.ruralhealthinfo.org/community-health/project-examples/245>



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