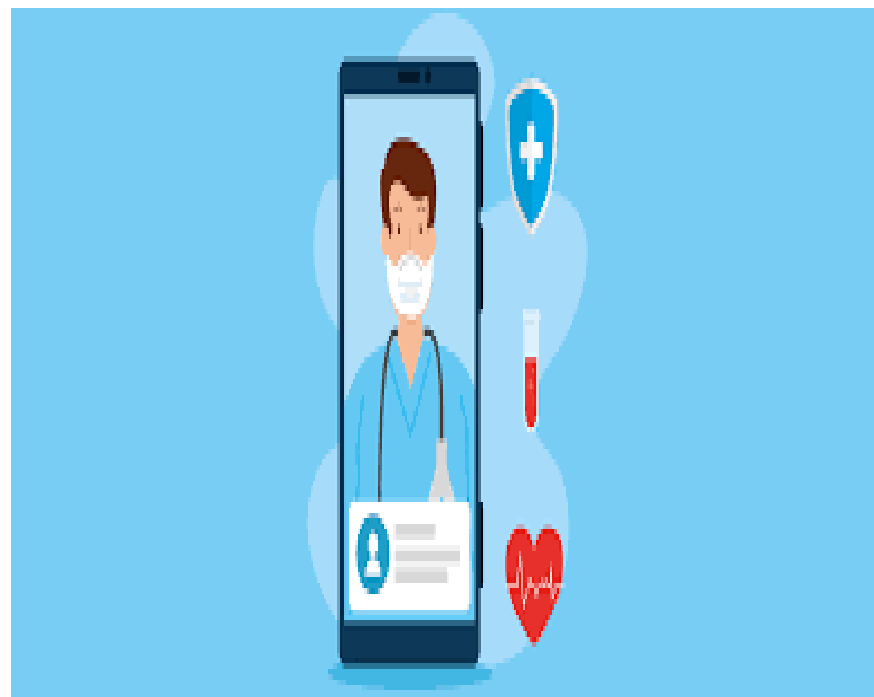
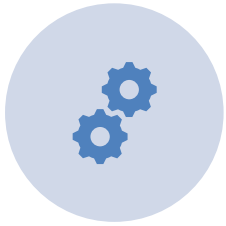


# Remote Patient Monitoring (RPM)

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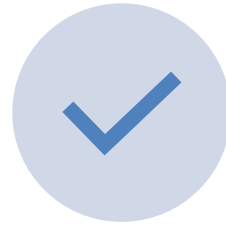
# RPM



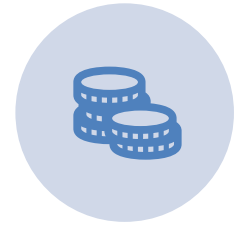
WHAT IS RPM?



TYPES OF RPM  
DEVICES &  
CONNECTIVITY



BEST PRACTICES &  
STRATEGIES



FINANCIAL  
SUSTAINABILITY



DATA DATA DATA!

# Poll Question

## Where are you in your RPM Journey?

- Starting to look into vendors, planning stages etc.
- Already selected a vendor and about to begin implementation
- In pre- implementation or pilot phase
- RPM Gurus

## RPM Trials—The Seminal VA Study

- At the end of 2008, the US VHA released its findings for its care coordination/home telehealth program, and the results were quite positive. In essence, this was the first study of this magnitude in the United States concerning remote telehealth services. The data analysis consisted of 17,025 patients. The data showed a 25.0% reduction in the number of bed days of care, a 19.0% reduction in the number of hospital admissions, and a mean satisfaction score rating of 86.0% after enrolment into the program.
- These results were a step toward confirming what the healthcare providers in an enterprise-wide environment have speculated for years with smaller studies, namely that home telehealth is an appropriate form of chronic care patient management. This data also shows that remote monitoring has cost-saving potential, particularly compared to existing alternative programs, although its overall healthcare system cost savings is still debated. One such example is the fact that while decreases in hospital bed days of care have been shown, increases in clinic visits are also common in remote monitoring systems, and can balance out the cost savings across the healthcare system.
- Nevertheless, these published findings by the VA are a big first step toward home telehealth adoption within the United States at a time when validations are strongly needed for market growth. This has resulted in a continued expansion for remote monitoring services by the VA and other public sources up until the forecast base year. More expansion is expected beyond that date.

Direct source:

[http://www.commonwealthfund.org/~media/Files/Publications/Case%20Study/2013/Jan/1657\\_Broderick\\_telehealth\\_adoption\\_VHA\\_case\\_study.pdf](http://www.commonwealthfund.org/~media/Files/Publications/Case%20Study/2013/Jan/1657_Broderick_telehealth_adoption_VHA_case_study.pdf)

Source: Frost & Sullivan

## More Recent VA Findings

**Key Takeaway: In the United States, the largest adaptor of Telehealth services continues to be the VA.**

- Based on 2012 data, the VA reports, "the VHA represents half of the 300,000 chronic disease remote monitoring patients in the US. It has awarded contracts for \$1.4 billion to mHealth technology vendors for devices and services and has published the most comprehensive studies on the costs and benefits of deploying mHealth and remote patient monitoring across multiple chronic disease, geographies, and socio-demographics."
- The VA's telehealth and RPM grew from an initial program of 2,000 patients in 2003 to over 150,000 in 2012. Services are to largely men between the ages of 50 and 90 years, with specific disease programs addressing diabetes (48%); hypertension (40%); congestive heart failure (CHF) (25%); chronic obstructive pulmonary disease (COPD) (12%); and mental health (about 5%).

### Significant findings include:

The annual cost to deploy these programs is \$1,600 per patient per year, compared to over \$13,000 for traditional home-based care and over \$77,000 for nursing home care.

The key economic benefit occurs from the cost avoidance associated with telehealth and mHealth remote monitoring services that have led to 25% reduction in number of bed days of care and a 19% reduction in hospital admissions

Benefits vary by disease; for example, the reduction in hospitalization for mental health patients exceeds 40%, while those for CHF and hypertension range from 25% to 30% and diabetes and COPD average about 20%.

Source: US VHA; Frost & Sullivan

# The RPM “Holy Trinity”



Hardware  
(Connected Devices)



Software (Portal)



FTE's (People)

# Benefits of RPM

Help patients by monitoring vital signs, symptoms, and adherence closely, alerting providers if intervention is needed.

A way to manage growing number of patient populations with chronic disease, improve patient satisfaction, outcomes, and value-based care.

Remote Patient Monitoring provides PCP with the clinical data they need to drive treatment and care plan decisions.

Ability to be alerted to situations that require medical attention instead of waiting for the next in-person or video- telehealth visit.

Improved access to care

Better manage large underserved patient population that is rapidly increasing

Help reduce health disparities

# To Start or Not To Start?



Grant Funding vs. Reimbursement



The Pandemic



In House or Outsource?



# Keys to Success

Choosing the right partner/vendor

Having the process and people in place

Ownership of the Data!



# Remote Patient Monitoring

Key Functionalities & Requirements To Consider When Selecting RPM:



# Types of Devices

Low Tech vs. Hi  
Tech

Bluetooth/WIFI  
vs Cellular

To App or not  
to App?

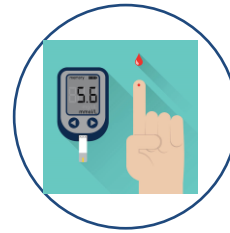
# Clinical Data Points



**Weight**



**Blood Pressure**



**Blood Glucose**



**O<sup>2</sup> Saturation**



**Temperature**



**Sleep**



**Activity (Exercise)**



**Heart Rate/Rhythm**

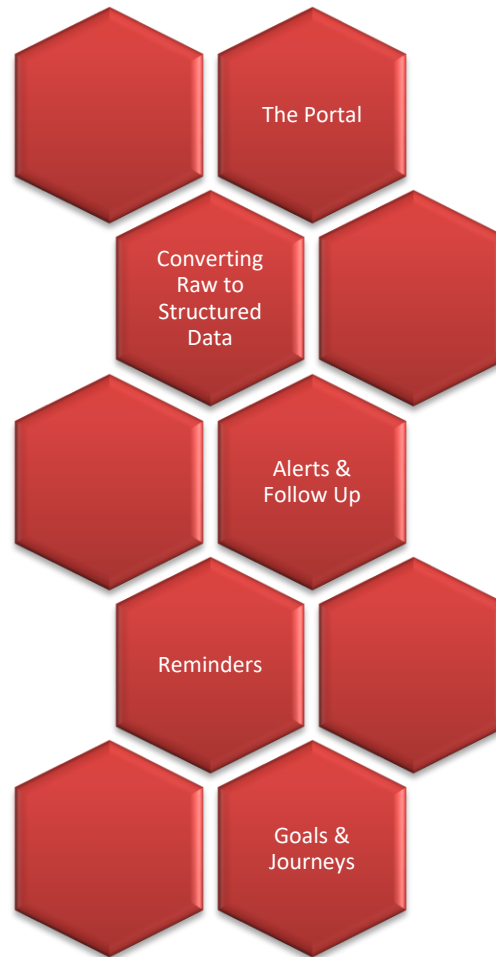
# Vendor/Device Selection

RPM technologies should be customizable to patients' specific needs

Training and support should be available for all patients and be dependent on patient ability

RPM technologies should address the needs of all patients without disenfranchising financially disadvantaged populations or those with low literacy or low technological literacy

# Secret Sauce



# Getting Started

## Create

- Create an implementation team-clinical, operations, finance, QI, marketing, IT etc.

## Identify

- Identify program supports and barriers

## Determine

- Determine RPM Champions

## Buy in

- Buy in from staff and partners

# Implementing a RPM Program

A successful program includes not only the technology but outreach and follow up to create behavior change

Aligning RPM with organizational Initiatives

Readying patients and staff for RPM roll out

Clinician buy in is essential

Optimizing processes and procedures on an ongoing basis to achieve desired outcomes



# Project Planning & Management

Clearly define the roles of the Executive Team, Providers and Clinical staff.

Clearly define timing of internal meetings, agenda and documentation of meetings.

Adjust the project schedule and deliverables to account for equipment vendor upgrades and EHR updates.

Produce a formal internal report every 6 months to document challenges, work completed, and recommendations for follow-up work.

How data from RPM devices will be collected, reported and tracked and by whom and determine the protocol if a patient is out of range.

# Keys to Success

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Use effective user-centered patient training programs

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Mechanisms to measure patient engagement & satisfaction

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Secure provider buy-in

# Remote Patient Monitoring

Key Functionalities & Requirements To Consider When Selecting RPM:



**QUESTIONS?**

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