# Beyond Brick & Mortar

## Remote Patient Monitoring & Hospital-at-Home
## 2022 AMDIS Annual Physician-Computer Connection Symposium

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**VP | CMIO Digital Health | OB/Gyn**

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# The next chapter of telehealth

In order to fully realize the potential of virtually enabled care models, both payers and providers should consider these new delivery models part of the core day-to-day value proposition to consumers across three areas:

## Improving care models and health outcomes, particularly for those with chronic conditions or in need of post-acute care support

- *Integrating remote monitoring and digital therapeutics with virtual visits, especially in value-based provider arrangements*, where incorporating virtual health into their care models could improve patient outcomes and overall performance
- *Growing hospital-at-home and post-acute care-at-home models*

*McKinsey & Company, July 2021*

businesswire
A BERKSHIRE HATHAWAY COMPANY

The global remote patient monitoring market to grow at a CAGR of 12.5% during 2021-2027.

Allied Market Research

## Remote Patient Monitoring Market to reach $8.5 billion by 2031: Allied Market Research

Rise in prevalence of lifestyle disorders, increase in usage of remote patient monitoring devices, and convenience & flexibility offered in monitoring drive the growth of the global remote patient monitoring market. The Covid-19 pandemic made a positive impact on the remote patient monitoring market as the demand for remote monitoring increased due to social distancing norms and reduced patient visits to hospitals and clinics to avoid cross-contamination.

June 07, 2022 07:34 ET | Source: Allied Market Research


Global Remote Patient Monitoring Market to Reach $62 Billion by 2027. U.S. to Dominate the Market with a CAGR of 12.6% - arizton April 14, 2022


# Typical RPM Functions & Devices


- Blood pressure cuff
- Pulse oximeter
- Weighing scale
- Thermometer
- Glucometer
- Spirometer
- Wearables
- ECG + stethoscope

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# Why RPM?

## Patient benefits

- Empowerment & self-management
- Enhanced access to care
- Boosted caregiver involvement
- Improved outcomes
- Decreased health equity gaps
- Lower out-of-pocket costs

## Health system benefits

- Reduced ED utilization, readmissions & LOS
- Improved clinical decision-making w/ real-time data
- Clinical staffing efficiency
- Lower cost of care
- Available payment opportunities
- Scalability

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# Planning for success

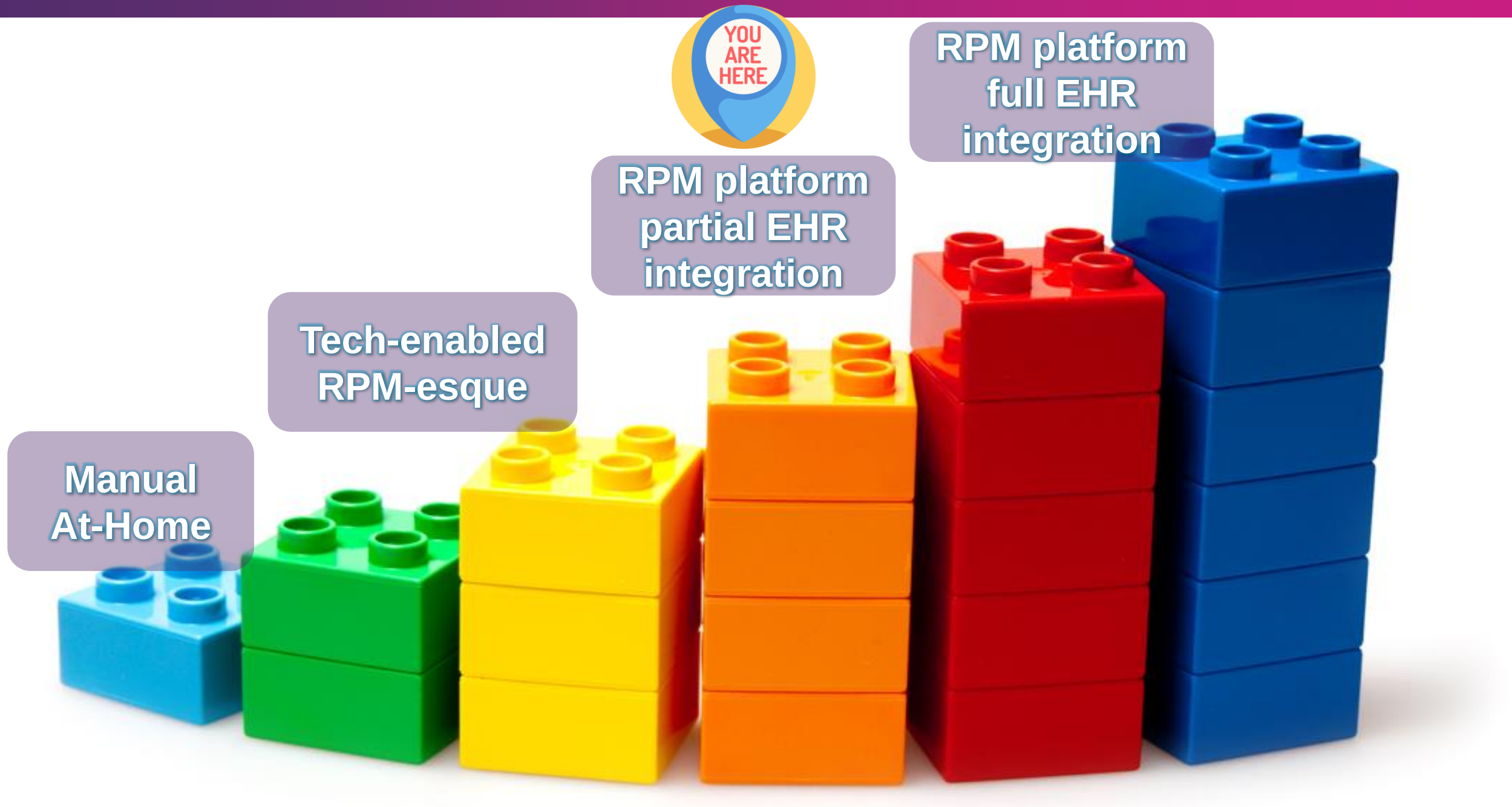
Remote Patient Monitoring Playbook






AMA AMERICAN MEDICAL ASSOCIATION

https://www.ama-assn.org/system/files/ama-remote-patient-monitoring-playbook.pdf


YOU ARE HERE
RPM platform full EHR integration
RPM platform partial EHR integration
Tech-enabled RPM-esque
Manual At-Home

# Operational & Technical Considerations

**Clinical Workflow**

- Identify current workflows and future workflows to support use case expansion
- Clinic based vs centralized monitoring

**Integration**

- Remote Patient Monitoring Platform integration into EHR workflows*

**Implementation**

- Tight integration across care delivery, operations & technology partners
- End user education, training, and experience
- Clinical team and patient support post go-live

**Billing**

- EHR build and additional logic required to properly implement billing for services
- Validation of appropriate charge routing
- Revenue flow to business unit performing monitoring services
- Payor coverage

** Multiple considerations*

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# Current RPM Programs


- Bariatrics (8*)
- Cardiac Rehab (23)
- Hypertensive Disorders in Pregnancy

Patient Enrolled in Program → Telehealth Kit Shipped → Telehealth Kit Delivered → Telehealth Program Begins → Inventory Management

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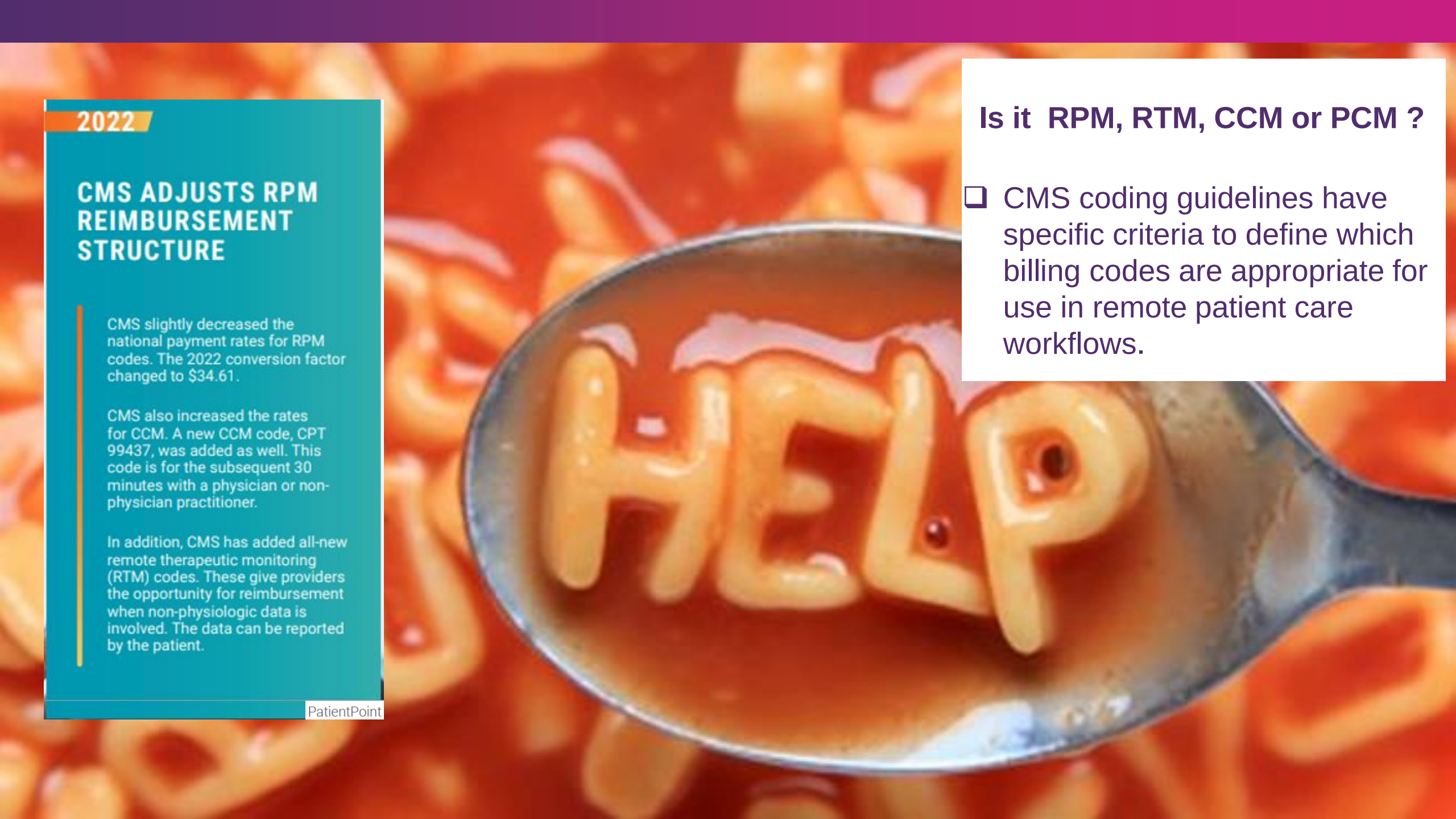
** Patients Currently Enrolled*




## Is it RPM, RTM, CCM or PCM ?

- CMS coding guidelines have specific criteria to define which billing codes are appropriate for use in remote patient care workflows.

## Remote Physiologic Monitoring (RPM)

| RPM – 99453 | RPM - 99454 | RPM - 99457 | RPM - 99458 | RPM - 99091 |
|---|---|---|---|---|
| • Initial setup and patient education on use of equipment | • Monthly monitoring, must have minimum of 16 days<br>• Monthly | • Monitoring and treatment management with patient/caregivers<br>• Minimum of 20 minutes in calendar month | • Each additional 20 minutes of monitoring and treatment management | • At least 30 minutes every 30 days of gathering, monitoring, interpreting data<br>• Interactive patient communication is not required |

## Remote Therapeutic Monitoring (RTM)

| RTM - 98975 | RTM - 98976 | RTM - 98977 | RTM - 98980 | RTM - 98981 |
|---|---|---|---|---|
| • Initial setup and patient education on use of equipment for respiratory, musculoskeletal system status, therapy adherence, therapy response | • Device supply with scheduled recordings and/or programmed alerts transmission to monitor respiratory system<br>• Each 30 days | • Device supply with scheduled recordings and/or programmed alerts transmission to monitor musculoskeletal system<br>• Each 30 days | • Management treatment services<br>• Initial 20 minutes<br>• Physician or other qualified health care professional | • Management treatment services<br>• Subsequent 20 minutes<br>• Physician or other qualified health care professional |

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https://www.claconnect.com/resources/articles/2022/new-codes-advance-potential-for-improved-care-management

# Chronic Care Management (CCM) and Complex CCM

| CCM - 99490 | CCM - 99439 | CCM - 99491 | CCM - 99437 | Complex CCM - 99487 | Complex CCM - 99489 |
|---|---|---|---|---|---|
| • At least 20 minutes of clinical staff time directed by a physician or other qualified health care professional, per calendar month | • Subsequent 20 minutes<br>• Clinical staff (may be billed up to 2x/month) | • At least 30 minutes provided personally by a physician or other qualified health care professional, per calendar month | • Subsequent 30 minutes<br>• Physician or other non-physician practitioner | • Establishment or substantial revision to comprehensive care plan<br>• Moderate-high complexity of medical decision<br>• 60 minutes of clinical staff time directed by physician or qualified health professional per calendar month | • Subsequent 30 minutes directed by physician or qualified health professional per calendar month |

# Principal Care Management (PCM)

| PCM – 99424 | PCM – 99425 | PCM – 99426 | PCM – 99427 |
|---|---|---|---|
| • Single high-risk disease<br>• Initial 30 minutes<br>• Physician or non-physician practitioner<br>• Per calendar month | • Single high-risk disease<br>• Subsequent 30 minutes<br>• Physician or other non-physician practitioner<br>• Per calendar month | • Single high-risk disease<br>• Initial 30 minutes<br>• Clinical staff<br>• Per calendar month | • Single high-risk disease<br>• Subsequent 30 minutes<br>• Clinical staff<br>• Per calendar month |

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https://www.claconnect.com/resources/articles/2022/new-codes-advance-potential-for-improved-care-management

# A sound remote patient monitoring strategy enables development of hospital-at-home or post-acute care-at-home programs.


The foundation ensures that a house stays where it's supposed to be.

Without a solid foundation, you'll have trouble creating anything of value.

erikaoppenheimer.com

# Building **hospital** at **home**

amazon

JOHNS HOPKINS MEDICINE
THE JOHNS HOPKINS HOSPITAL

Today's Hospitalist
www.todayshospitalist.com
January/February 2021

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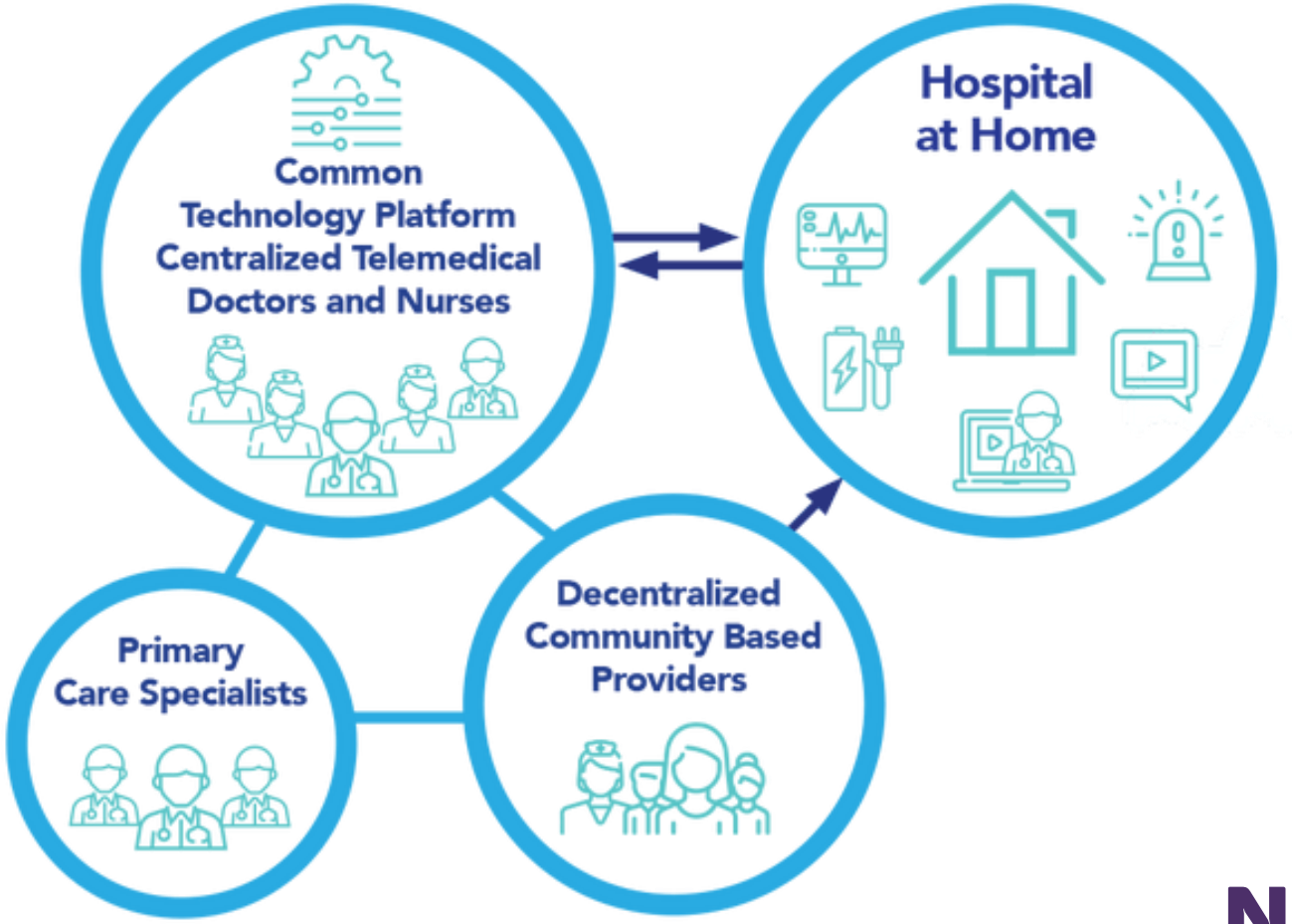
# VISION – Health Care Comes to Patients

## Hospitals to Focus on Complex Care

Emergency Room
Operating Room
Intensive Care Unit

## Non-complex Care Brought to Patients with Virtual Hospitals

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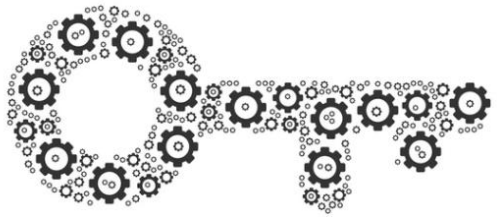
Medically Home: https://www.medicallyhome.com/a-virtual-hospital-without-walls/



Replace “COVID” with any condition or situation that may stretch the capacity of brick-and-mortar capabilities.

## DEMAND

**Consumer Preference**

- Avoiding healthcare settings amid COVID-19
- Being able to have loved ones, visitors with them

## CARE MODEL

**Patient Population**

- Expanding from lower-acuity chronic disease patients to include post-op, ICU stepdown, COVID-positive and other higher-acuity patients
- Patients admitted either directly from ED, home, or upon ICU discharge

## INFRASTRUCTURE

**Command Center**

- Staffed and operated 24/7 from a central location
- Continuous monitoring and communication with patients and caregivers; deploys needed staff and services to home

**Technology**

- Cell or broadband internet connection in patient’s home
- Initial home hardware set-up
- Clinical workflow integration into EHR

**Supply Chain**

- Medical equipment set up in home as needed
- Deployed services like lab tests, imaging, vaccines; must be redundant to ensure immediate availability

**Workforce**

- Dedicated hospitalists, RNs staffing command center
- Deployed clinical staff may include paramedics, home health workers, therapists, nurses, physicians

## PAYMENT

**Reimbursement**

- “Hospital Without Walls” temporary COVID Medicare waiver
- Medicare Advantage, commercial value-based contracts

Source: Gist Healthcare analysis.

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# H@Hs

## Types of ~~Houses~~ for Every Lifestyle and Budget

https://www.homedit.com

- Market need
- Internal and external resources
- Financial picture
- Legislative environment
- Appetite for change
- Desire for innovation
- Maintenance

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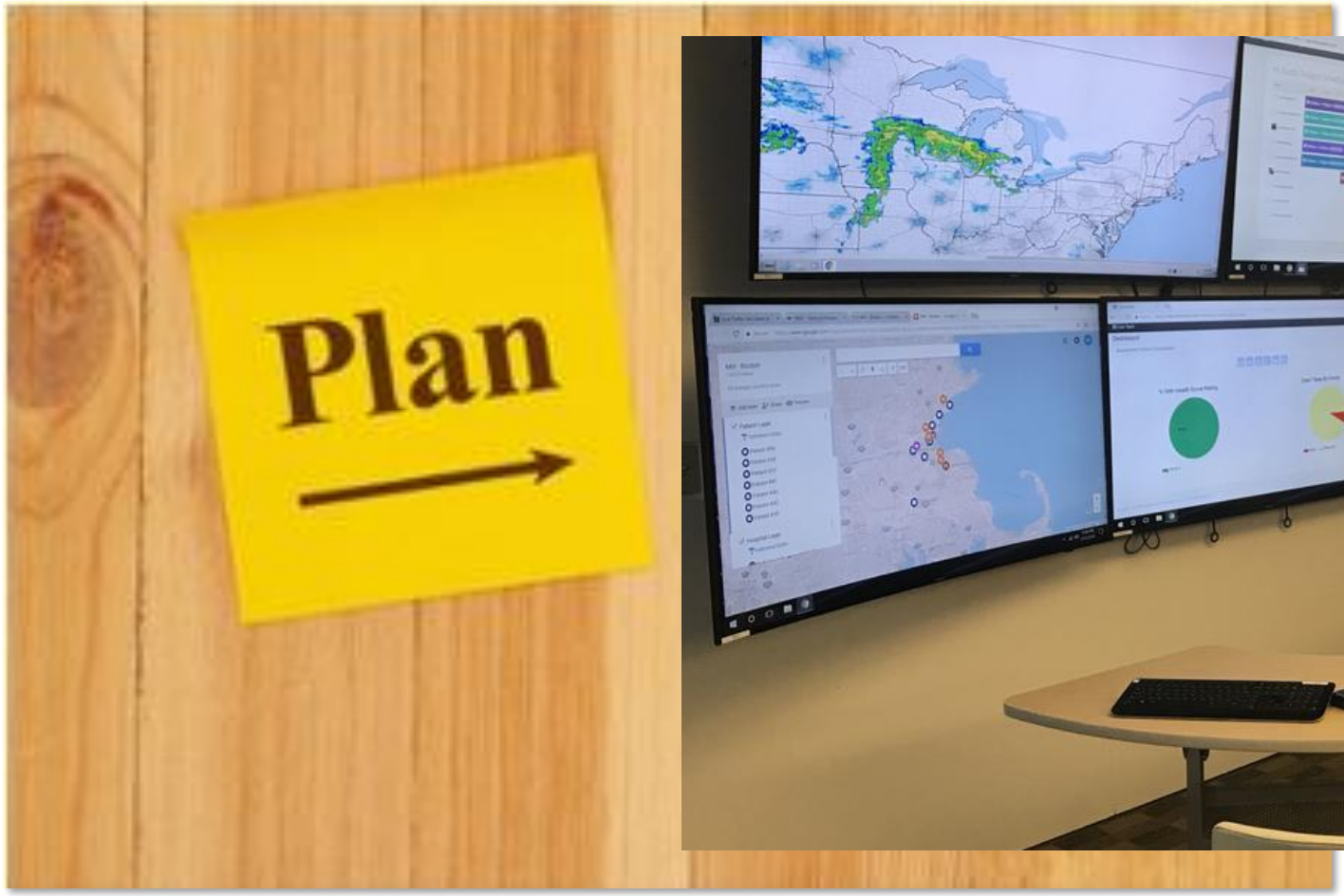


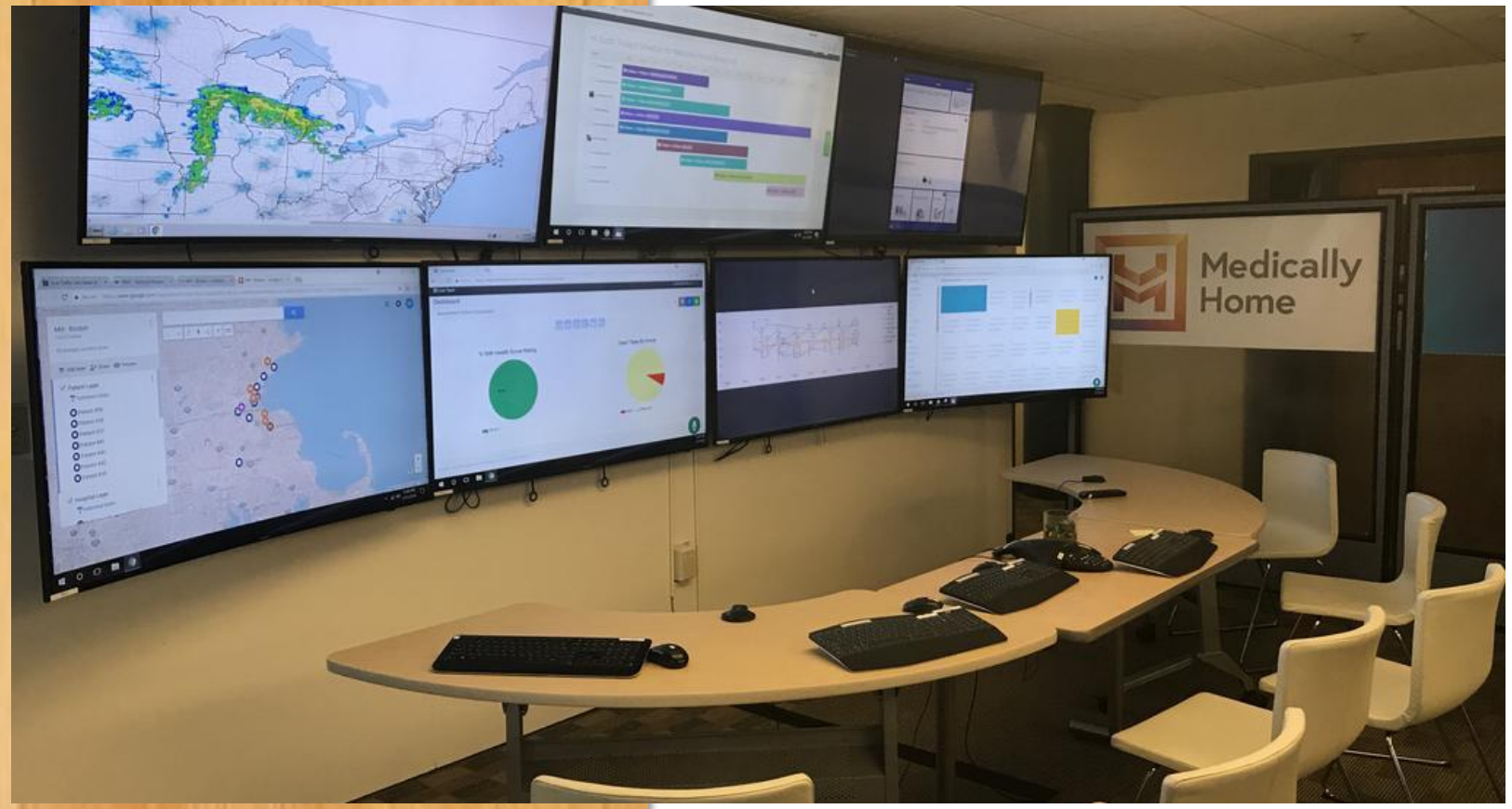


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H@H >>> Advanced Care at Home

Existing RPM Monitoring Platform

Existing Telemedicine Capabilities

Novant Health Home Health Agency

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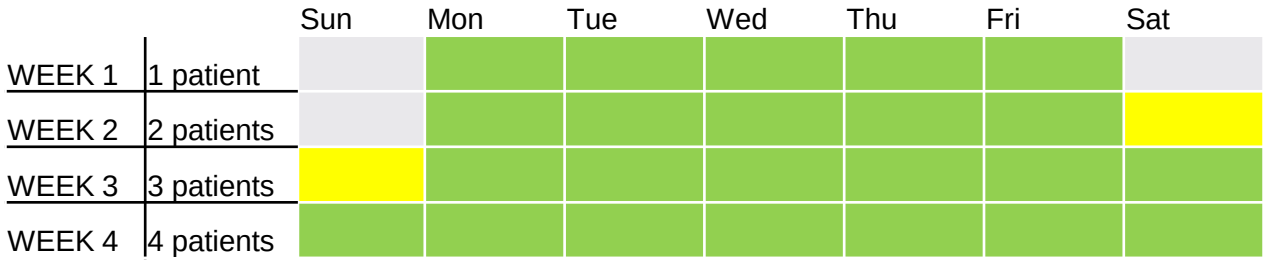
# Early Transition to Home Pilot

## Duration

- 30 days
- Up to 10 patients
- Admissions M-F, before noon
- Expected HH LOS 2-5 days




## “Show stoppers”

- Staffing
- Patient instability/clinical deterioration
- Technology failure
- Caregiver exit

## Expectations

- Daily in home visit by Home Health Agency
- Vital signs three times/day
- Healthcare provider always available by phone
- Daily physician virtual visit
- No returns to hospital

## Patient inclusion:

- Identified by attending physician
- CHF primary diagnosis
- Medicare, Medicare Managed Care
- Home Health eligible
- Patient chooses Novant Health Home Health
- Lives in New Hanover County
- Social screening (as with H@H)
- Caregiver assessment by physician
- Clinically stable, progressing well, around inpatient day 2
- PO transition Lasix, possible IV
- No new oxygen need

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## Whatever you build

- Build it to suit well identified needs
- Make it adaptable
- Be willing to innovate

# Thank You.

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