



# Transforming Rural Healthcare through RPM

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# What is Remote Patient Monitoring? (RPM)

- A form of telehealth.
- Supports primary care team to assist patients in effectively managing their medical conditions. This is achieved by utilizing medical devices outside of conventional healthcare settings, such as in the comfort of their own home.
- Devices capture physiological biometric readings that are then electronically transmitted to a patient's care team in between office visits.
- Supports early identification and intervention for adverse clinical changes.
- Supports patient engagement and accountability as they learn lifestyle behaviors that impact their health.



# Clinical evidence backing RPM use

- Evidence backing the clinical benefits of RPM has been available for 20+ years and the research database continues to grow.
- Use cases for RPM continue to evolve - although RPM has historically been thought of as a tool to help manage chronic conditions.
- In the more recent past, RPM has been deployed as an intervention for higher-acuity conditions as well as leveraged for patients' post-operatively or post medical admission.

National Library of Medicine  
National Center for Biotechnology Information

PubMed®

Diabetes Management Through Remote Patient Monitoring: The Importance of Patient Activation and Engagement with the Technology

Dejun Su<sup>1,2</sup>, Tzeyu L Michaud<sup>1,2</sup>, Paul Estabrooks<sup>2</sup>, Robert J Schwab<sup>3</sup>, Leslie A Eiland<sup>4</sup>, Geri Hansen<sup>5</sup>, Mary DeVany<sup>5</sup>, Donglan Zhang<sup>6</sup>, Yan Li<sup>7</sup>, José A Pagán<sup>7,8,9</sup>, Mohammad Siahpush<sup>2</sup>

ACTIONS: Cite, Collections

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American Hospital Association  
Advancing Health in America

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## Studies Find That Remote Monitoring Advanced Care During Pandemic

BECKER'S HEALTH IT

### KLAS: Remote patient monitoring reduces admissions, readmissions, ER visits

Remote Patient Monitoring Improves Type 2 Diabetes Outcomes

Patients living with type 2 diabetes saw improvements in their A1C levels while using remote patient monitoring during the COVID-19 pandemic, according to a new study.

# Benefits of RPM

**Reduced ED visits,  
inpatient admissions &  
readmissions**

**Increased  
access to  
care**

**Increased patient  
engagement &  
satisfaction**

**Higher  
quality care**

**Early  
detection &  
intervention**

**Cost avoidance for patients &  
healthcare organizations**

# RPM benefits amplified in rural settings

**Accessibility**

**Real time  
data & care  
adjustments**

**Helps identify  
social drivers of  
health issues**

**Peace of  
mind for  
patients &  
families**

**Reinforces  
positive  
lifestyle  
changes**

**Enables patients to get the  
right care, right place, right  
time**

# RPM potential barriers in rural settings

**Connectivity**

**Staffing &  
resourcing**

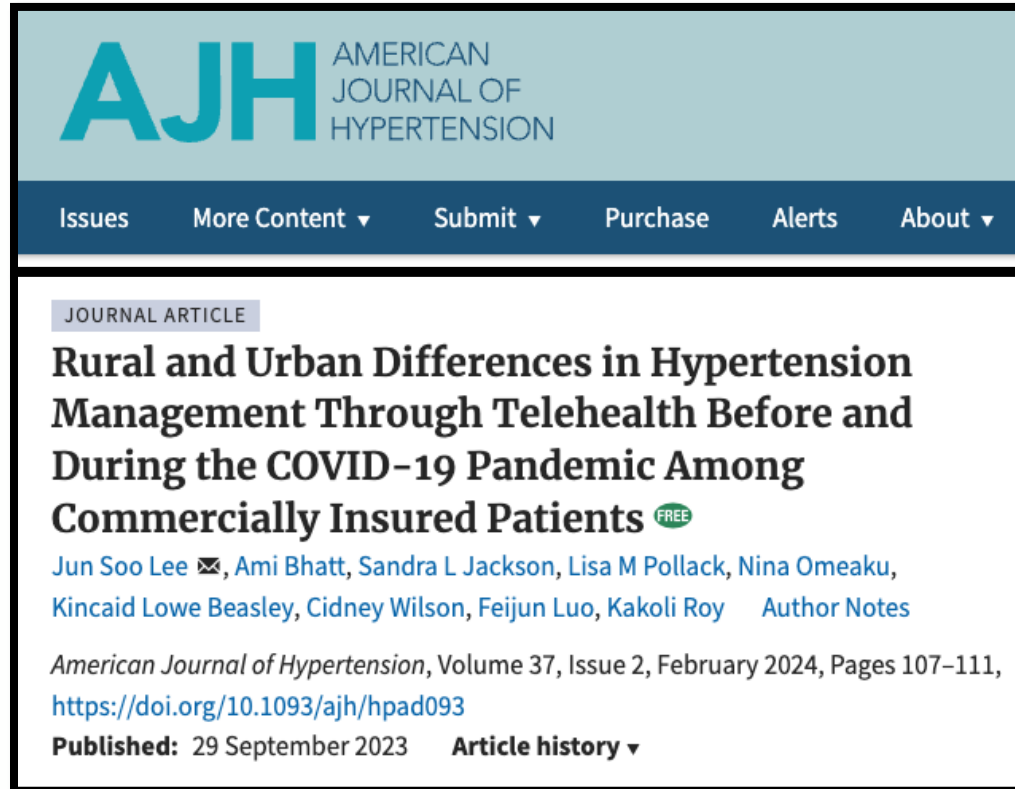
**Technology literacy  
& acceptance**

**Financial  
constraints**

**Trust**

**Concern regarding RPM  
supplanting or detracting  
from CCM offerings**

# RPM barriers in rural settings



The screenshot shows the top portion of a journal article page. At the top left is the AJH logo with the text 'AMERICAN JOURNAL OF HYPERTENSION'. Below the logo is a dark blue navigation bar with links for 'Issues', 'More Content', 'Submit', 'Purchase', 'Alerts', and 'About'. The main content area has a 'JOURNAL ARTICLE' label above the title. The title is 'Rural and Urban Differences in Hypertension Management Through Telehealth Before and During the COVID-19 Pandemic Among Commercially Insured Patients', followed by a 'FREE' badge. Below the title are the authors' names: Jun Soo Lee, Ami Bhatt, Sandra L Jackson, Lisa M Pollack, Nina Omeaku, Kincaid Lowe Beasley, Cidney Wilson, Feijun Luo, and Kakoli Roy, with a link to 'Author Notes'. The journal information is 'American Journal of Hypertension, Volume 37, Issue 2, February 2024, Pages 107-111', and the DOI is 'https://doi.org/10.1093/ajh/hpad093'. At the bottom, it says 'Published: 29 September 2023' and 'Article history'.

Source: <https://academic.oup.com/ajh/article/37/2/107/7285933>

## Conclusions

Data show that rural residents were less likely to use telehealth for hypertension management. Understanding trends in hypertension-related telehealth utilization can highlight disparities in the sustained use of telehealth to advance accessible health care.

# One less barrier for RPM in rural settings today!

- Although Rural Health Clinics (RHCs) and Federally Qualified Health Centers (FQHCs) could provide RPM services prior to 2024, it was not until January 1, 2024, that CMS granted RHCs and FQHCs the ability to bill CMS for RPM services.
- This has served as a true turning point for many rural providers as it has granted them greater flexibility in how they can go about implementing RPM for their patient population.
- With RPM identified as a tool to help providers meet important performance metrics underlying value-based care, this change in regulations was one long awaited by the greater rural healthcare community.



# Industry trends

- RPM is not going anywhere, and innovation will continue.
- The more the industry shifts to value-based care, the greater the demand for RPM services will become.
- Use cases for RPM will continue to evolve, as will outcomes research.
- Expanding provider shortages can be partially addressed by digital engagement tools such as RPM.

# Higi Care Everyday is backed by a clinical network that puts patients first

Built on the belief that nurturing human relationships and meeting patients in their community and at home leads to great quality and improved health outcomes

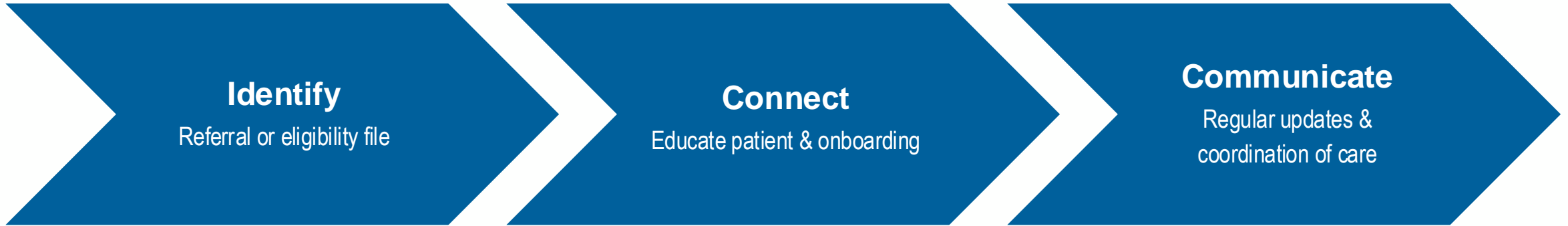
- Filling the gaps for patients
- Enhancing existing healthcare teams
- Enhancing coordination of care & navigation to resources
- Patient health & safety first

## Clinician-Led



High touch clinical care power with remote monitoring devices for polychronic patients, with ongoing management and coaching. Technology enabled; relationship driven.

# Higi Care Everyday solution process overview



## Patient Identification



Identification in conjunction with partner • Outreach to set up appointments for onboarding

## Enrollment & Initial Visit



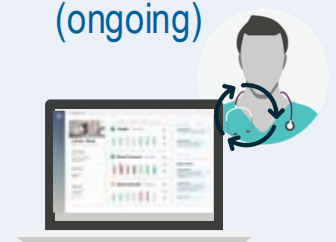
Initial enrollment • Telehealth provider visit • Capture medical history, medications, PCP • Determine unique needs • Devices sent to home

## Remote Monitoring (ongoing)



Monthly practitioner reviews • Care team collaboration • Regular physiological data capture and reporting

## Higi & Partner Collaboration (ongoing)



Ongoing data to support interventions as needed • Navigation to additional services or resources identified in the Playbook

# Higi Care Everyday as an extension of the patient's PCP

Higi's goal is to amplify and augment the fantastic work that primary care providers are already championing in their community. We are able to flex our Higi workflows to best meet the needs of our partner organizations, leveraging existing care management relationships where appropriate.



If a patient escalation is required, the patient's dedicated Higi RN CM contacts the patient to clinically validate the situation



If further intervention is warranted, the Higi CM sends an Escalation Report to the patient's appropriate PCP clinical contact\*



Higi RN CM follows up with a phone call to the appropriate PCP clinical contact to ensure receipt of the Escalation Report & discuss further if desired by PCP



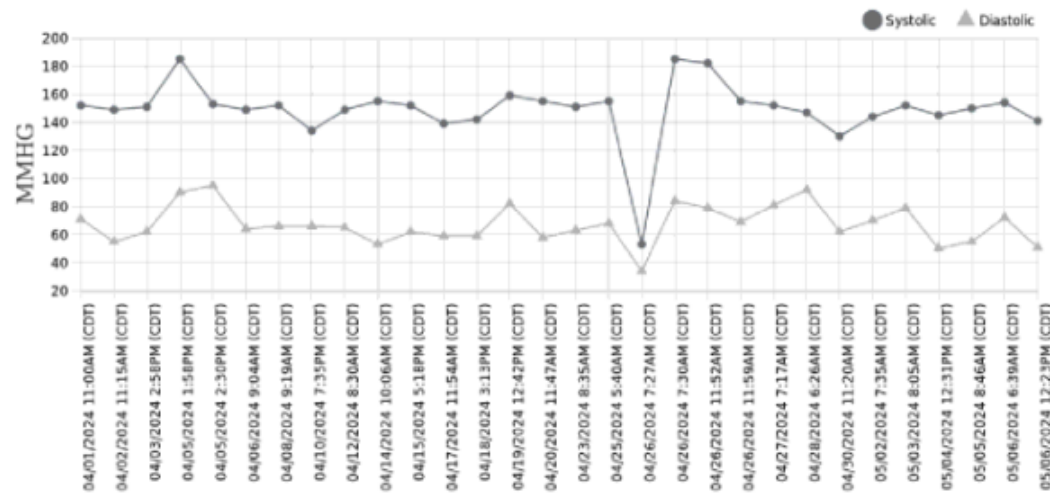
Higi RN CM works collaboratively with the PCP care team to support their recommendations

\*Depending what is agreed upon, could be the patient's home organization's care manager or PCP; items such as these are addressed during program build/workflow development sessions

# Higi Care Everyday as an extension of the patient's PCP

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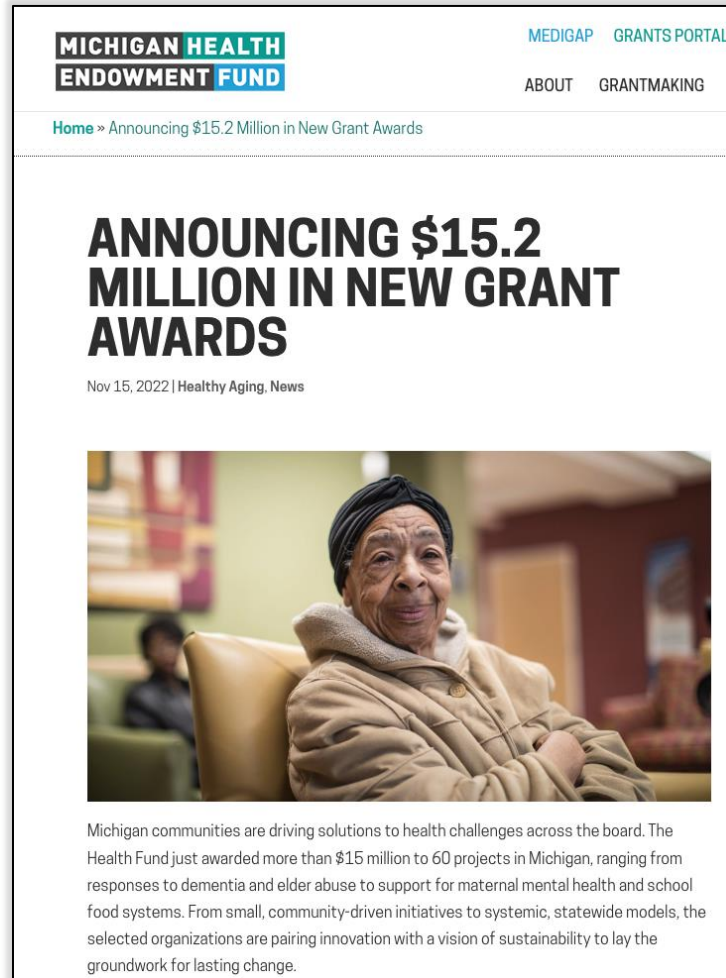
- Monthly patient-specific status reports provided to PCP and any specialty providers (as requested by the patient)



**Notes:**

- **04/26/2024:** S/O reviewed alert for elevated bp. Contacted patient, denies symptoms. / A/P repeat blood pressure when patient can get back home. No further action needed.
- **04/05/2024:** S/O reviewed alert for elevated bp. Contacted patient, denies symptoms. A/P repeat within normal range. No further action needed

# Michigan Health Endowment Fund (MHEF) RPM Pilot




**MICHIGAN HEALTH ENDOWMENT FUND** MEDIGAP GRANTS PORTAL ABOUT GRANTMAKING

Home » Announcing \$15.2 Million in New Grant Awards

## ANNOUNCING \$15.2 MILLION IN NEW GRANT AWARDS

Nov 15, 2022 | Healthy Aging, News



Michigan communities are driving solutions to health challenges across the board. The Health Fund just awarded more than \$15 million to 60 projects in Michigan, ranging from responses to dementia and elder abuse to support for maternal mental health and school food systems. From small, community-driven initiatives to systemic, statewide models, the selected organizations are pairing innovation with a vision of sustainability to lay the groundwork for lasting change.



### 2022 SPECIAL PROJECTS & EMERGING IDEAS INITIATIVE GRANTS

#### Michigan Center for Rural Health

*Enhancing RPM in Independent Rural Hospitals*

To pilot a remote patient monitoring and chronic care management platform to improve access to care for older rural residents.

# MHEF RPM Pilot

An 18-month pilot funded by the MHEF focused on serving seniors with Medicare Part B who have polychronic conditions or health complexities such that treating providers believe at-home monitoring would be necessary to improve or stabilize their health. Ran through June 2024.

## Goals:

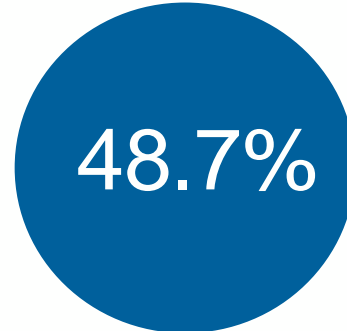
- Increase access to care the pilot communities while simultaneously avoiding additional clinical burden
- Improve health outcomes for seniors
- Develop a rural health RPM playbook that outlines steps and associated best practices enabling the launch of RPM services in rural and/or remote areas



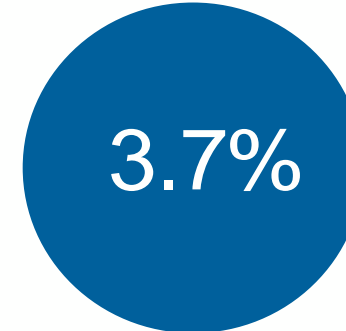
# Overall pilot enrollment



# of patients enrolled in the pilot



Conversion rate for eligible patients referred by PCP or home organization care manager



Conversion rate for patients approached by RPM partner on behalf of home organization



# Pilot outcomes | Improved medical management



Patient  
engagement



Medication  
adherence



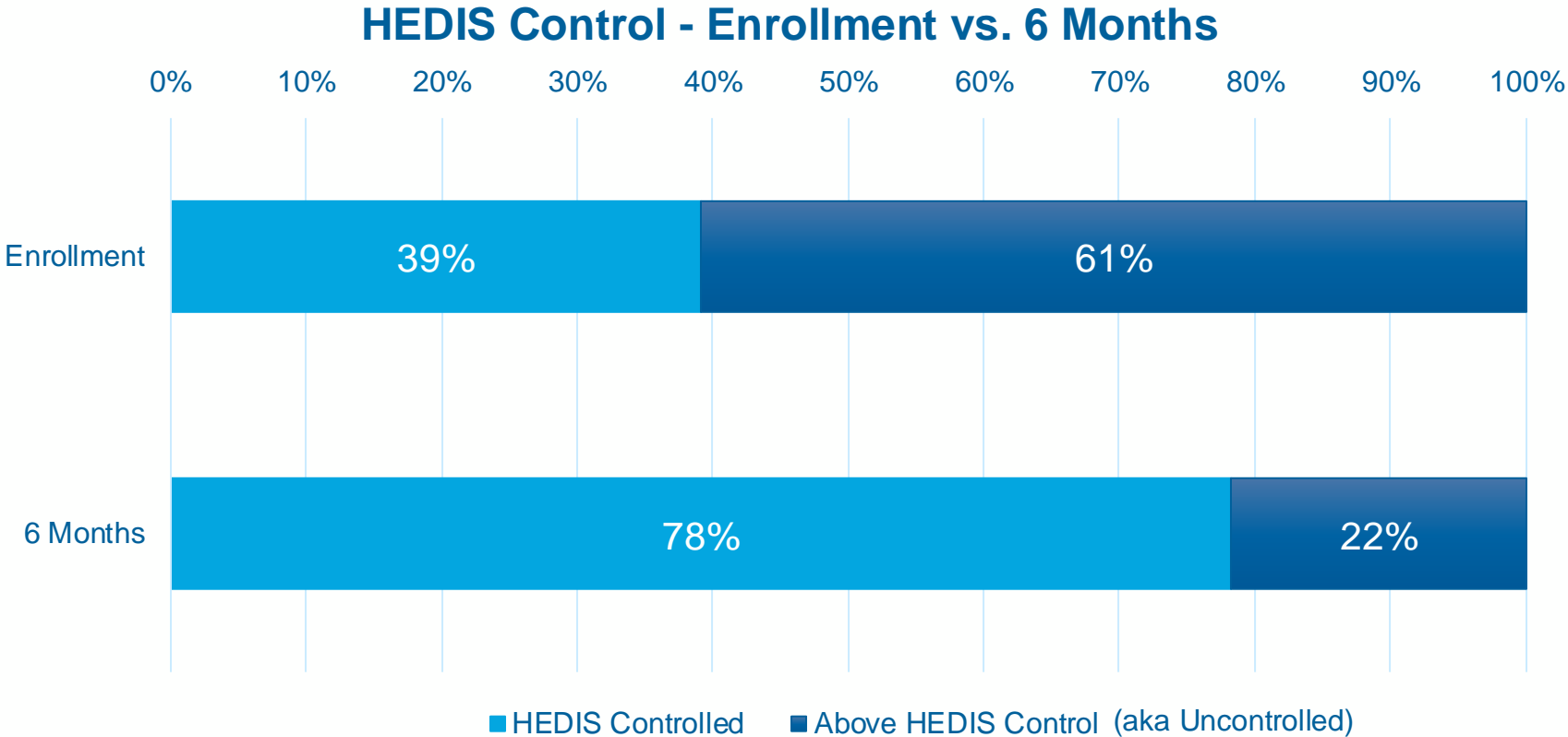
Medication  
adjustment  
facilitation



Enhanced  
coordination  
of care

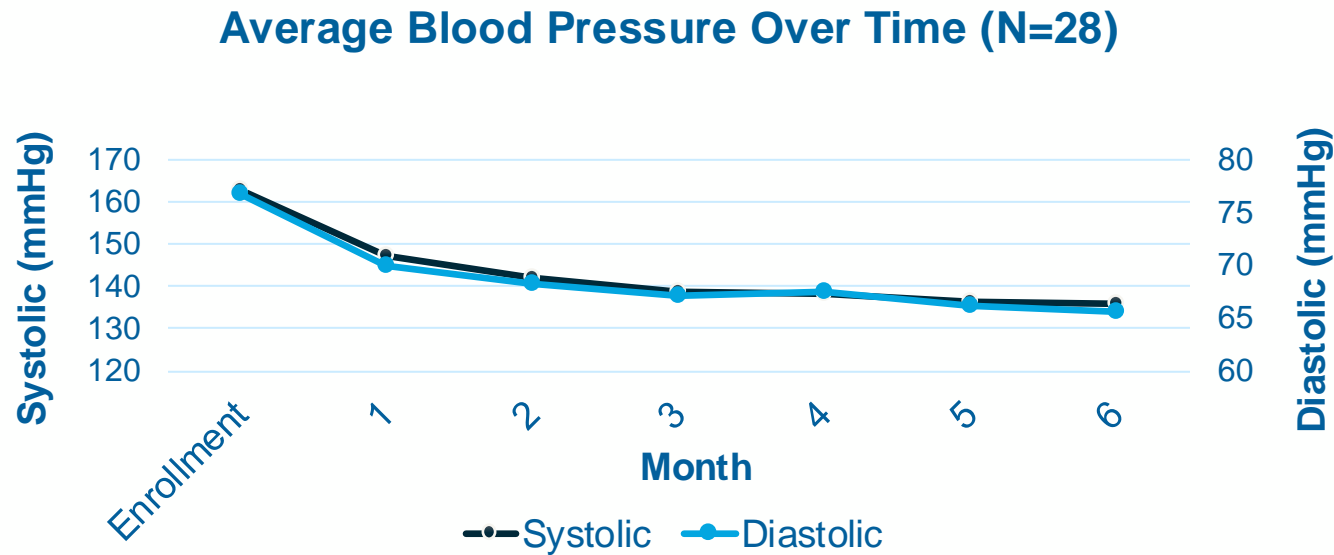
# Pilot outcomes | Improved health outcomes

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



# Pilot outcomes | 6-month blood pressure trends cont.

Patients initially uncontrolled

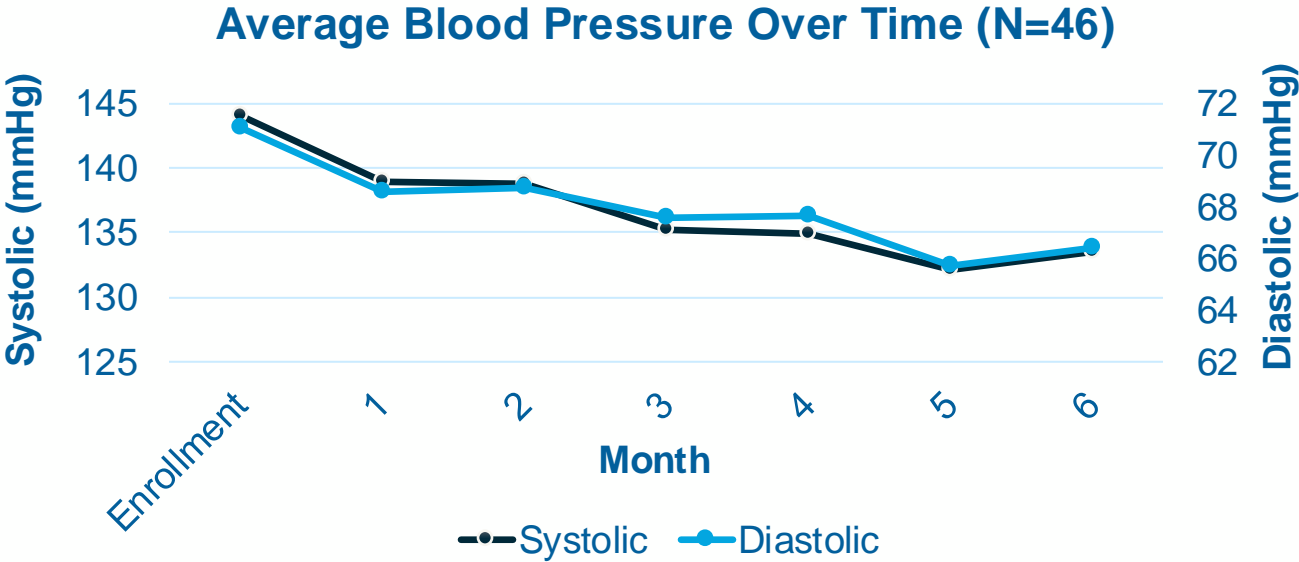


- N = 28 patients
- Average reduction in blood pressure:
  - Systolic: **27 mmHg**
  - Diastolic: **11 mmHg**
  - Mean Arterial Pressure: **17 mmHg**
- 5 mmHg drop in systolic blood pressure reduces risk of major cardiovascular event by 10%\*

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

# Pilot outcomes | 6-month blood pressure trends cont.

Full 6-month patient cohort

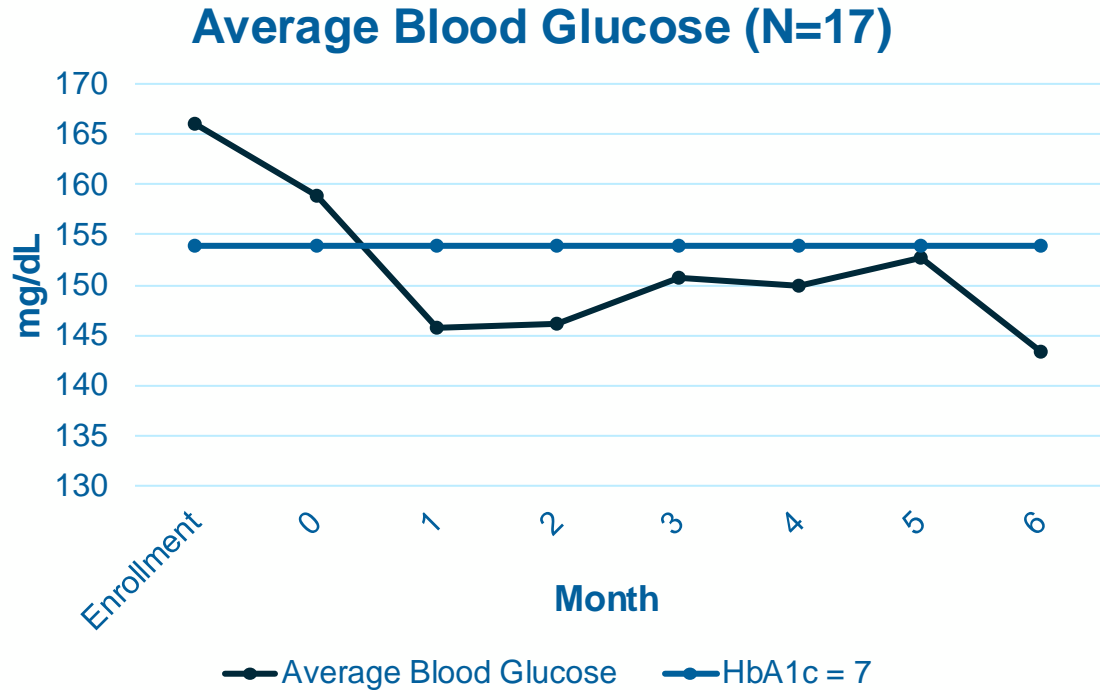


- N = 46 patients
- Average reduction in blood pressure:
  - Systolic: **13 mmHg**
  - Diastolic: **5 mmHg**
  - Mean Arterial Pressure: **8 mmHg**
- 5 mmHg drop in systolic blood pressure reduces risk of major cardiovascular event by 10%\*

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

# Pilot outcomes | 6-month blood glucose trends

Full 6-month patient cohort



- N = 17 patients
- Average reduction in blood glucose in 6-months:
  - **25 mg/dL reduction**

Story highlights:

64-year-old female:

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

69-year-old male:

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

# Pilot outcomes | Improved health outcomes

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



# Pilot outcomes | 6-month weight trends

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

## Story highlights:

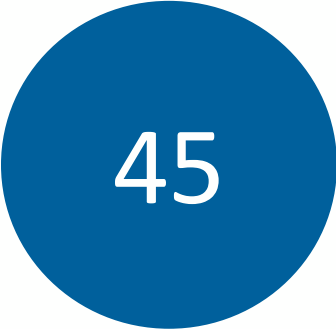
### 68-year-old male:

- Active in RPM for 10 months
- At 6 months, weight loss **was 0.7 lbs**; at 10 months weight loss **was 33 lbs**

### 77-year-old female:

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

# Pilot outcomes | Patient satisfaction



# of patients surveyed



Likelihood to recommend average score



Device ease of use average score



Initial telehealth appointment experience average score



Overall experience with Higi Care Manager average score



# Pilot outcomes | Patient satisfaction cont.

"I would recommend this to anybody...I really would"  
*Referring to the RPM program*

"I am really happy with [my dedicated care manager]. If I have a question, they are great about answering it."

"I am checking everything better now."  
*Patient has all three devices & takes readings daily; only took readings once a month prior to RPM enrollment*

"I enjoy the whole process of [my care manager] telling me all the averages 'cause I am trying to get off the blood pressure medication and that's my goal. So, we're working towards that, so I appreciate her input and giving me tips along the way."

"[The program] makes me more accountable for some things because I know they will be registered and looked at. I think that helps me."

"I am definitely a 10. The whole experience has been helpful and great."

"I am more concerned about my blood sugar than I was before because I know it is being checked."

*Patient has lost a few pounds and is able to see that her BP medication is working and regulating her BP which she is happy to have visibility into*

"keeps me more aware of the situation."

"I am so glad my doctor hooked me up with it -- it has been very helpful. [My care manager] is so caring and considerate and helpful, informative. This experience has been very good for me. I didn't realize I was having blood pressure challenges because when I went to the doctor's my blood pressure would be ok but that was usually in the middle of the day a couple hours after medication. We found out that I did have a blood pressure challenge between medication doses, and now doctors are experimenting with different medications and doses and stuff like that. Blood pressure is a silent killer I guess, and it was silent with me, but it was too high a lot of the time."

"Makes me pay more attention to my blood pressure and everything -- that's for sure."

"It has gotten my sugars down – they are pretty much normal. I have lost about 15 pounds [...] my blood pressure is doing good. It makes you think more about what you are doing."  
"I think it is a great program. I was kind of skeptical at first, but it works."

"They let my doctor know what's going on"

# Pilot outcomes | Provider feedback

- Providers expressed their desire to:
  - Grow the program
  - Integrate the monthly summary reports directly into their organization's EHR for ease of use
  - Lock the program down to only provider referrals
- Throughout the program, the monthly summary reports evolved based on provider feedback

# Thank you to our partner hospitals!



Allison Holbrook, BSN, RN  
Population Health Manager



Tiger Marcotte, MHA, MSN, RN  
Director Rural Health & Specialty Clinics



Heather Baumeister, BSN, RN  
Director of Healthcare Practices

# Best practices

**The importance of local organization's care managers from the start**

**Address telehealth intimidation**

**PCP verbal closing the loop with patients**

**Easy to use devices**

**Data integration**

**Leveraging underutilized services to bring the program to life**

# Where to go from here?



## Our RPM in Rural Michigan Hospitals Playbook!

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





Questions?