Lightbeam Health Solutions

CareSignal
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CASE STUDY

One of the Largest Remote Patient Monitoring Implementations and Evaluations in the US: Clinical, Claims, and Staffing Analyses

54,000 Patients and $53 Million in Cost Savings

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Midwest Health* Designs Scalable Care Systems

Midwest Health System serves patients across *Missouri, Arkansas, Oklahoma, and Kansas* and provides care regionally through Midwest Health Virtual, one of the first enterprise-wide telehealth services in the US, and hosts one of the largest Epic EHR instances. Midwest Health's centralized care team supports patients across the midwest, making it imperative to create a system could scale to support tens of thousands of patients.

Midwest Health prioritized implementing a remote patient monitoring system that could scale across the enterprise, integrate with the EHR, and be financially sustainable. This case study describes the practical, yet innovative, operational and technological changes Midwest Health's population health team implemented along with a three-year evaluation and claims analyses.

Limitations of the Traditional Care Management Model

Why did Midwest Health implement an enterprise-wide remote patient monitoring solution? Like every major healthcare organization in the US, Midwest Health continues to shift to value-based care, while addressing staffing challenges and capacity limitations.

The limitations of the traditional care management model constrained Midwest Health's value-based care potential. It relied on labor-intensive manual care management outreach. Such time-intensive efforts meant care was limited to a small subset of the top 1-2% of the highest utilizers. Furthermore, outreach often occurred reactively, making it challenging to proactively reduce avoidable ED and inpatient utilization.

*** "Midwest Health" is used in place of the client name and brand during active collaboration on journal submission and other co-branding opportunities. All patient names and information have been changed and de-identified.**

Solution: Midwest Health Care Connect
Creating a Sustainable and Scalable Population Health Program

Midwest Health re-envisioned the traditional care management model and created a new Population Health management program.

The Midwest Health Care Connect (MCC) program combines automated Deviceless RPM technology with a reorganized care team structure and streamlines workflows to engage more patients, faster, and with less costly resources. Deviceless RPM automates patient outreach to free up staff capacity, provides real-time data to ensure timely patient information, and enables care teams to expand care to tens of thousands of rising-risk patients.

Identifying the needs of the various segments of Midwest Health's patient population allows for a more proactive and personalized approach. An important aspect of this innovative care model is that it addresses the needs of the individual patient while leveraging a team-based approach. Midwest Health uses a variety of strategies to identify rising risk patients who would benefit from additional touch points with a care team member.

"Value-based care success hinges on our ability to proactively identify and manage patients with rising-risk needs. Deviceless RPM allows us to provide the right level of care when needed and avoid unnecessary utilization."

Vice President, Population Health; Care Navigation, Midwest Health

"Not every patient requires in home device monitoring. Many patients benefit from frequent contact with their care team and this can be accomplished simply and in a personalized manner at scale utilizing their phone."

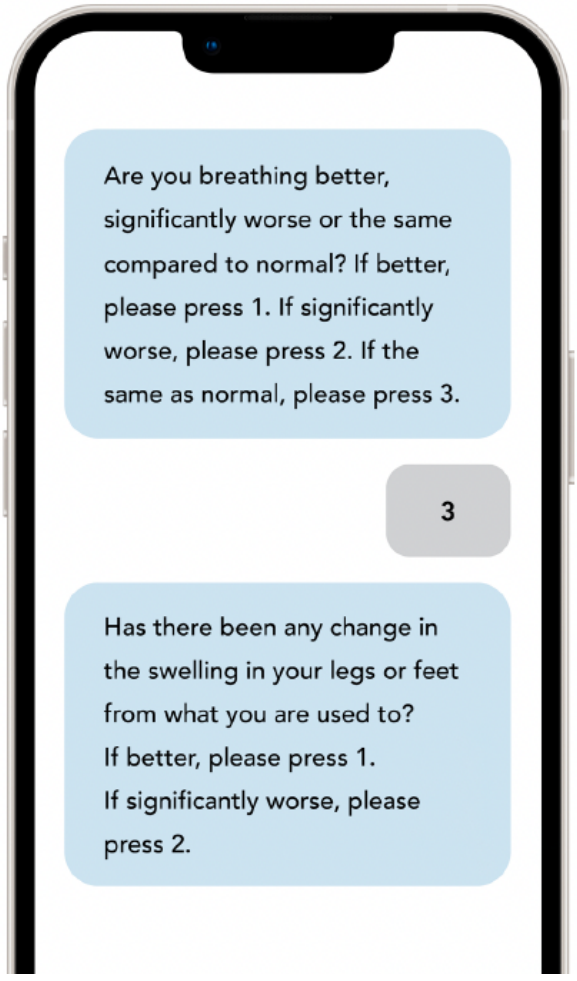
SVP Population Health, Midwest Health

How it Worked

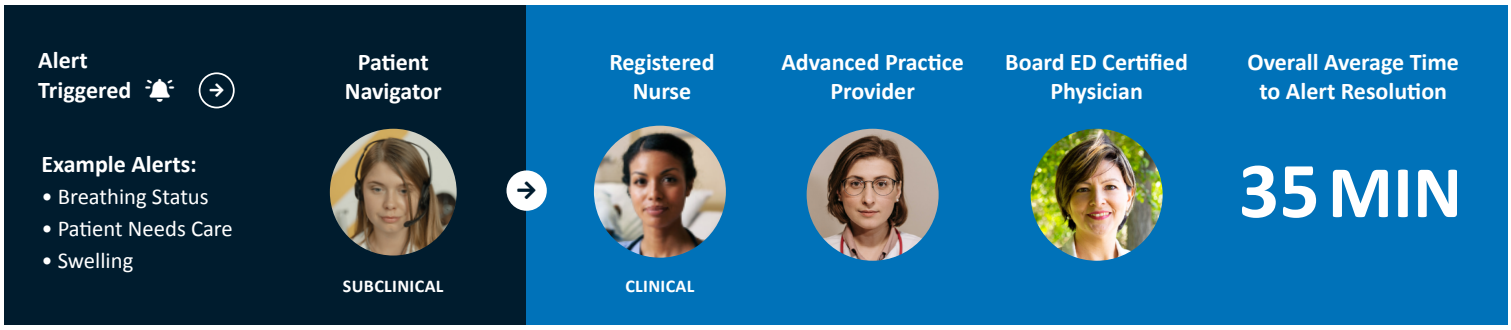
Midwest Health implemented CareSignal's Deviceless Remote Patient Monitoring platform to monitor the health status of patients in between visits.

The platform sends SMS and phone messages to the patient's phone, allowing them to easily report biometrics and symptoms *(e.g., blood sugar, blood pressure, breathing status)* in real-time. The system sends alerts to the care team for uncontrolled symptoms. Midwest Health Care Connect focuses efforts on high-cost chronic conditions including CHF, COPD, and Asthma, as well as post-discharge to reduce 30-day readmissions.

Sample Message for CHF Deviceless RPM



Real-time Data and Team Collaboration Improve Care Quality



Midwest Health Care Team Collaboration

With any care program, clinical speed is often the deciding factor in preventing avoidable utilization. Midwest Health utilizes clinical (RN, APP, MD/DO) and sub-clinical (patient navigator) roles to support the centralized use of Deviceless RPM. The team structure and digital first approach allow Midwest Health to monitor a larger number of patients with existing staff, while ensuring that staff are able to work at top of license. The structure of the care team also promotes efficient clinical escalation and enables timely alert resolution.

EHR and Data Integration

Midwest Health has worked continuously with the CareSignal team on various integration efforts. Due to this collaboration, RPM data is able to flow directly back into Epic for care team use. Midwest Health and CareSignal have also worked to integrate alert data into Midwest Health's internal ticketing infrastructure, which has further streamlined alert review and resolution.

Patient Eligibility

Patients participating in Medicare Advantage, the Medicare Shared Savings Plan (MSSP) ACO have initially been enrolled in the program. Midwest Health co-workers have also been enrolled in the program.

Automated Pathways for an Efficient Enrollment Workflow

Midwest Health recognized the importance of quickly and efficiently identifying patients to be enrolled into MCC after a discharge or ED visit. Instead of team members manually identifying eligible patients, Midwest Health and CareSignal established a daily ADT feed, which includes all patients eligible for enrollment in the MCC post-discharge module.

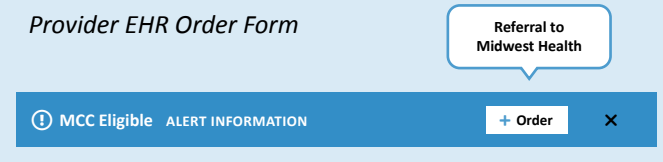
Automated Post-Discharge Enrollment Pathway

1. Recognized a ***need for recurring patient list*** for enrollment in discharge module.
2. Established automated ***daily discharge ADT feed*** of eligible patients.
3. Enrollment team ***reaches out and enrolls*** recently discharged patients ***same day***.

Once the CS team receives this list of patients, the engagement specialist team handles outreach and enrollment on behalf of Midwest Health.

Providers can also refer patients into MCC via a point of care notification in Epic. This notification lets care team members know which patients may benefit from enrollment in MCC. The order and corresponding patient details will automatically flow to the CS team for outreach and enrollment.

Provider EHR Order Form



Dedicated Team Focused on Enrollment

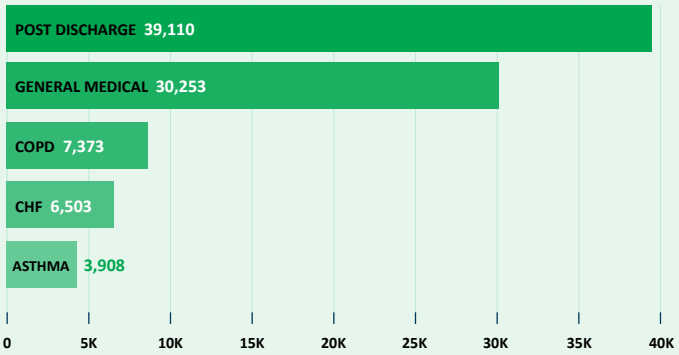
Patient enrollment is often a blindspot for many provider organizations when implementing an RPM program, and getting enrollment right is key to scalability. Midwest Health leverages the CareSignal-managed enrollment team to call patients, provide education about the program, capture consent and patient preferences, and complete the enrollment process.

With the CareSignal team dedicated to enrollment,the Midwest Health team is able to focus on clinical support and patient care. As a result, the enrollment specialist team enrolled 54,000 patients over a 3 year period.

" Automated patient outreach and real-time data alerts allowed us to scale our Population Health program to serve thousands of additional patients without adding additional resources, while focusing on patients needing the most support."

Executive Director, Population Health Navigation, Midwest Health

Over 54,000 Unique Patients Enrolled *(Jan. 2020 – Dec. 2022)*



Notes *Patients enrolled in additional programs were not included for purposes of this presentation. Patients enrolled in PD module are automatically enrolled in Gen Med after 30-days.*

Deviceless RPM Utilization:
5 Million Clinical SMS and Phone-based Touches

5 Million Automated Patient Touches Triggered 120,000 Patient Alerts

2020 – 2022

5 MM
Total Automated Patient Touches

3.3 MM
Total Automated Text Messages

1.7 MM
Total Automated Phone Calls

126,667
Total Alerts Triggered

2.5%
Average Alert Rate
(manageable patient alert volume)

35 MIN.
Average Turn-around Per Alert

5x Increase in Care Team Efficiency While Improving Quality

National Average (1:150) **Midwest Health** (1:800)

1:150 → 1:800

Results (5x Increase in Patient Caseload)

5x

= 100 PATIENTS

Increase in patient caseload, helping 1 population health navigator manage 5x more patients than the national average

Staffing Outcomes

Use of Midwest Health Care Connect has allowed Midwest Health to manage a broader patient population with existing staff and resources. ***In using MCC, one RN team member is able to support 800 patients, over 5x more than the national average of 150 patients per care manager*** while maintaining quality of care and co-worker satisfaction.

The scalability of MCC is partly due to identifying the rising-risk and the focused efforts on patients alerting. With an average alert rate of 2.5%, care team members are able to address the acute needs of the patients who alert each day, while supporting a substantial portion of our at risk population.

Top of License Care is Better for Staff Satisfaction

In a traditional CM model, a RN care manager may end up spending a significant amount of time placing cold calls and playing phone tag with patients.

This approach is often unproductive and leads to frustration for both the care manager and patient. When leveraging a digital first approach to RPM, a RN could instead spend their time providing care and education to patients while using their highest levels of training. This ultimately yields a larger impact for the team member and patient.

Deviceless RPM enables team members to work at the top of their license by automating routine patient outreach, enabling them to reach 5x more patients, and identifying the “rising-risk needles in the haystack" so the care team can spend their time helping patients who need support.

Financial Outcomes

$53MM

Total Overall Cost Savings: *(Asthma, CHF, COPD, Post-Discharge)*

$49MM

Total Cost Savings from Chronic Conditions: *(Asthma, CHF, COPD)*

$4MM

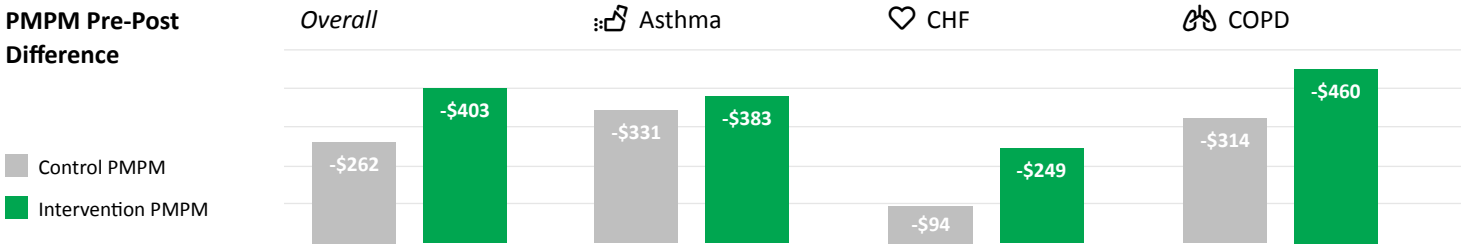
Total Cost Savings from Prevented 30-Day Readmissions: *(Post-Discharge)*

Methodology: *Claims analysis included 3 years of data for chronic conditions (Asthma, CHF, COPD), and 2 years of data for PD. For both analyses the intervention group was the activated patients, control group was the enrolled but inactivated.*

Midwest Health Reduced Utilization in High-Cost Conditions for an Overall $141 PMPM Reduction

Programs	*Overall*	Asthma	CHF	COPD
PMPM Reduction	**$141**	**$52**	**$155**	**$146**
Total Patient Months	**348,122**	**86,566**	**119,017**	**143,996**

PMPM Pre-Post Difference



TOTAL COST SAVINGS	$49.18MM	$4.51MM	$18.49MM	$21.03MM

Midwest Health Generated a 1.95% Absolute Reduction in the 30-Day Readmission Rate

Type	Intervention Readmission Rate *(15,146 Discharges)*	Control Readmission Rate *(4,501 Discharges)*	Absolute Reduction	Relative Reduction
30 Day	**8.31%**	**10.26%**	**1.95%**	**19.01%**

Total Readmissions Prevented: **295** Savings of **$4.4MM**

The difference in the readmit rates between intervention & control group was statistically significant, $X^2 = 16.5$, $p<.01$

Patients Report High Satisfaction

Over 22,000 patients responded to patient surveys asking about the Deviceless RPM program. Patients reported feeling like they are getting the best possible care and that the messages improved communications with their Midwest Health Care Team.

Care Satisfaction: *You are getting the best possible care from Midwest Health.*

N = 24708
Average = 7.71

1 - Strongly Disagree — Strongly Agree - 9

Improved Communication: *These messages have improved your communication with Midwest Health*

N = 23466
Average = 7.64

1 - Strongly Disagree — Strongly Agree - 9

Message Frequency: *Messages from Midwest Health are sent at just the right frequency.*

N = 22767
Average = 7.72

1 - Strongly Disagree — Strongly Agree - 9

Patients Report Feeling Connected and Cared For

"They are a direct line to the care team if a health issue flares up. Less red tape for me if I need more care." *- Patient*

"I don't ignore symptoms. I am more apt to take my medicine at the same time every day." *- Patient*

"A friendly reminder that we are connected to Medical Services that can help at any time." *- Patient*

Learn how to leverage Deviceless RPM at your organization. Request a Demo with a member of the Lightbeam Sales Team by clicking here, or scanning the QR Code.