Mercy

How Mercy Built a Technology-Enhanced Care Management Model to Scale Care Management and Increase Patient Engagement

CareSignal™

Introduction

St. Louis-based Mercy health system is one of the largest U.S. health systems with more than 40 hospitals and a self-insured employee base of over 44,100 employees. With the first Virtual Care Center and a new but growing population health team, Mercy seeks to improve quality outcomes for its patients and self-insured employees.

At Mercy, and across the nation, healthcare executives are aware of the growing mantra, "more risk is coming." With the growth of risk-based contracts, Mary Laubinger, Vice President of Population Health Navigation at Mercy, and her colleagues saw the opportunity to test Mercy's value-based care readiness by first looking inward at its self-insured population since they are 100% at-risk for the cost of medical care for their employees.

The Problem

Traditional Care Management Is Not Scalable

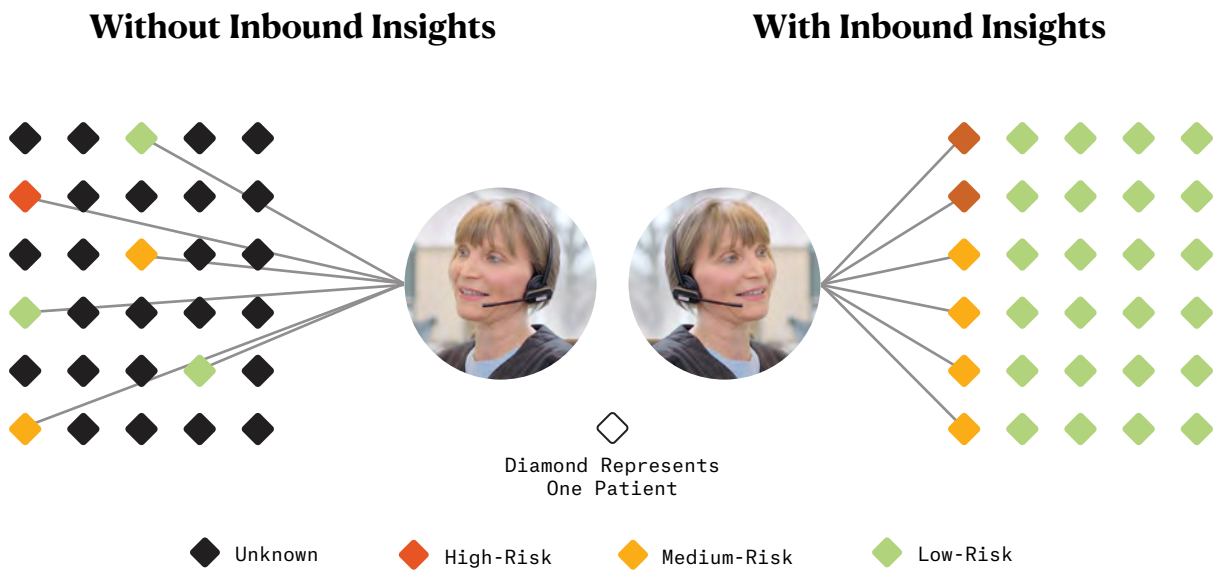
To improve health outcomes for its employee population, Mercy first assessed its technology tools and care management processes. Care managers are critical to engaging patients and improving health outcomes particularly for those with chronic diseases such as COPD, heart failure, and diabetes. However, the process of retrospective risk stratification via claims and other data sources to identify high-risk patients was not enough. It was challenging to reach enough patients at the right time through telephonic interventions.

Even though care managers were calling patients on periodic intervals relative to their risk level, they lacked real-time data to identify patients who would most benefit from nursing intervention. This outbound focused care management model limited the ability to scale the program to achieve maximum clinical and financial outcomes.

> **"Traditional telephonic care management is predominately an RN labor-intensive program. Mercy has been challenged with rising labor costs, a continued nursing shortage, increasing financial pressures, and the need to improve performance in value-based contracts."**
>
> - **Mary Laubinger**
> Vice President, Population Health Navigation

The Solution - Part A.

Empower Care Management with Real-time Data and Inbound Actionable Insights



Mercy executives, including Mary Laubinger, VP of Population Health Navigation, and Dr. Justin Huynh, VP of Population Health Virtual Ambulatory, saw an opportunity to leverage technology to collect valuable, real-time, patient reported health data. Mercy implemented St. Louis-based CareSignal's text-message based remote patient monitoring platform in 2017 to help care management better engage and monitor the status of patients in between traditional care management phone calls.

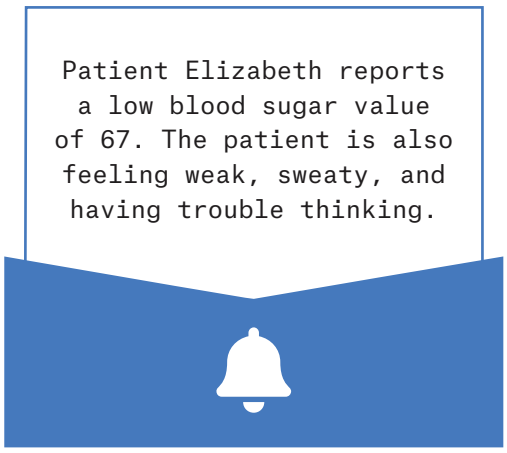
Mercy started by implementing CareSignal's platform for three of the most costly and prevalent conditions among its coworker population: Diabetes, CHF and COPD. The platform sent patients automated, clinically-validated text message questions, enabling patients to report condition-specific biometrics and symptoms in real-time. Care managers received timely, risk-stratified data with alerts identifying patients whose condition was worsening. By flowing real-time patient data into the patient's chart in Epic and sending email alerts, care managers could stay in one familiar EHR system.

The Solution - Part B.

Structure Care Management for Greater Scalability and Impact to Enable Top-of-License Care

Mercy also understood that to achieve a successful new technology implementation, they needed more than just the tool. Mercy needed a well-built workflow that streamlines every step of the care manager journey from patient enrollment to addressing alerts. Mercy developed a structured approach for the use of this technology within the care management team. A steering team with a physician and care management leaders developed workflows and algorithms to manage key diagnosis. This allowed them to leverage CareSignal's technology to maximize care management potential and allow nurses to work at top-of-license.

CareSignal automated the routine outreach to patients who care managers would not have otherwise been able to engage with and provided actionable alerts, allowing them to proactively intervene to improve health and avoid unnecessary utilization.



An example of an actionable alert for diabetes.

When implementing new patient-facing technology, RN telephonic care managers might expect to spend more of their time educating patients and teaching them how to use new tools — instead they found that utilizing CareSignal's team of patient engagement specialists (PES) to enroll patients protected their time. If a patient fit high-level inclusion criteria identifying them as rising risk, the patient was eligible to be monitored through CareSignal. A PES called the patient to educate them about the tool and gather consent and enroll them onto the platform — all without any effort from the RN care manager during the implementation stage. From there, Mercy added Medical Assistants (MAs) to monitor the dashboard of alerts, responding to

Hub and Spoke Model with CareSignal

MA Can Monitor 300 Rising-Risk Patients

And Task High-Risk Needs to CMs

low-acuity patient needs quickly, and routing triage alerts to the appropriate RNs. Where telephonic care managers traditionally provided the first response to patients, MAs could instead act as an important filter, freeing up more time for nurses to care for higher-risk patients.

This structure became known as the Hub and Spoke Care Management Model, and it enables the scalability that is necessary for expanding care management. The model allowed care managers to scale from approximately 30 high-risk patients per care manager to 300 high and rising-risk patients, a nearly 10x increase in the number of patients they could help. As the PES team worked on the front end to educate and enroll patients and MAs worked on the back end routing triage alerts, RN care managers were able to work top of license to provide care for patients most in need.

Care managers provided timely, targeted care, ultimately reducing avoidable emergency department visits. With the implementation of this new care model, Mercy could experience cost savings by engaging rising-risk patients before they incurred costs.

> **"At first, we were under-utilizing CareSignal. Care managers were not consistently taking the time to enroll their patients, but CareSignal's Patient Engagement Specialists were later able to take this out of their hands. They partnered to identify a group of patients who could benefit from the program, and the engagement specialists managed the enrollment."**
>
> - **Mary Laubinger** Vice President, Population Health Navigation

"CareSignal has created a technology that is simple to implement and produces a quick and sustainable impact on patient care. CareSignal allows Mercy to expand our ability to support patients with chronic conditions using a technology-first approach that allows nurse care managers to intervene when patients most need help.

Without this technology, nurses spent considerable time reaching out to patients in non-value-added activities that limited their ability to respond to patients at the right time. Now with smart technology, we can systematically reach out and connect with more patients on a routine basis and utilize our nurses to intervene when patients are beginning to have worsening symptoms.

This leads to a better patient experience, more targeted care management intervention, improved medication adherence, reduction in avoidable emergency department visits, and improved care manager and provider satisfaction."

- **Mary Laubinger**
  Vice President, Population Health Navigation

The Result

With the implementation of CareSignal and the Hub and Spoke Care Management Model with its employee population, Mercy saw higher engagement and improved outcomes among patients with CHF, COPD, and diabetes.

Heart Failure

POPULATION

Employees diagnosed with CHF and a history of CHF-related ED visits prior to starting the intervention

CLINICAL OUTCOME

59%

reduction in CHF ED visits

HIGH LONGITUDINAL PATIENT ENGAGEMENT

57%

of patients were engaged at three months

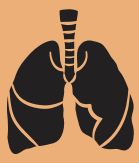
33%

of patients were engaged at six months

FINANCIAL OUTCOME

-$848.20

per member per month



COPD

POPULATION

Employees diagnosed with COPD and a history of COPD-related ED visits prior to starting the intervention

CLINICAL OUTCOME

30%

reduction in COPD ED visits

HIGH LONGITUDINAL PATIENT ENGAGEMENT

54%

of patients were engaged at three months

39%

of patients were engaged at six months

FINANCIAL OUTCOME

-$193.85

per member per month

Diabetes

POPULATION

Employees diagnosed with diabetes

CLINICAL OUTCOME

2.03%

average reduction in HbA1C[1]

HIGH LONGITUDINAL PATIENT ENGAGEMENT[2]

89%

of patients were engaged at three months

78%

of patients were engaged at six months

FINANCIAL OUTCOME

-$200.71

per member per month

[1] Care managers found that patient alerts were frequently about observed hypoglycemic events or running out of testing supplies, which enabled them to prioritize care. [2] As Mercy continued using CareSignal after the study, they also saw that 30% - 40% of patients were engaged two years later.

To learn more about Mercy's diabetes results in a patient population, see this American Medical Group Association case study.

Scaling to Help More Patients

Remote Patient Monitoring Expands the Reach of the Virtual Care Center

With the success of the new technology-enabled care management model among employee populations, Mercy executives were able to gain valuable experience that can be utilized as they move into additional risk-based contracts — including commercial, Medicare Advantage and Medicare ACO. Mercy is now piloting CareSignal with a newly designed Population Health model that blends care management and ambulatory virtual teams into one seamless model of care.

Mercy Virtual vEngagement began in 2015 as a virtual care system that uses virtual technology to care for patients with chronic conditions in their home using a tablet for virtual visits and Bluetooth-enabled equipment to monitor vital signs. Patients are cared for by a physician-led care team, including an advanced practitioner, a registered nurse and a navigator. They also have access to support staff including chaplain, physical therapists, dietitians and mental wellness specialists. While virtual technology works well for patients with complex chronic conditions, Mercy recognized the cost and resource limitations to scaling for large populations.

The recently developed Population Health department brings Primary Care, vEngagement and Care Management together to support the expansion of value-based contracting with a more seamless system of care. In January 2020, a pilot was developed to integrate CareSignal into the new care navigation model that offers more levels of patient support. The Population Health team started by identifying Medicare patients with heart failure & COPD who were not already managed by the vEngagement team. On the primary care providers behalf, CareSignal sent letters to these patients about the program, encouraging them to enroll when they received a call from provider engagement specialists (PES). Then the PES called the patients to explain the program and begin the enrollment process.

Over 160 patients were enrolled in the initial pilot and the vEngagement team was used to manage patients who alerted due to changes in their condition. The vEngagement navigator was able to assess the alert and then hand off the patient to the nurse. When needed, an Advanced Practitioner on the team was able to provide in the moment medical intervention.

The pilot is now expanding to other communities and will become an integral tool for their population heath strategy. With the addition of the CareSignal tool the team can provide continuous support for a larger population using existing clinical resources. CareSignal can be used for low to moderate risk patients and vEngagement for higher-risk complex patients. And vEngagement patients who no longer need a high level of support can be transitioned to CareSignal.

Lessons Learned

1. Ease of technology implementation influences utilization, and utilization is directly proportional to value

Mercy recognized that adding new technology into established workflows would require a culture shift, but CareSignal's ease of implementation enabled them to minimize the disruption of these processes. CareSignal's PES team consented, enrolled, and educated patients on how to use the tool with minimal clinician involvement. By flowing real-time data into the patient's chart in Epic and sending email alerts, care managers could stay in one familiar EHR system.

2. Learn how to take on risk in employee population first, then scale experience gained to broader value-based care contracts

The internal success of the new remote patient monitoring technology and processes showed Mercy executives exactly what they would need to scale this same level of care into additional risk-based contracts. Implementing CareSignal and the new 24/7/365 care management model within the Mercy Virtual Care Center now allows more patients to receive high-level care without the need for additional staffing.

3.Measuring the impact of care management is facilitated by long-term engagement and standardized patient-reported health data

For health systems everywhere, showing precise evidence of the effectiveness of care management is a challenging task. Mercy executives saw great benefit in the ability to easily measure results by seeing exactly how many times care teams reached out to patients who reported worsening symptoms, the patients' responses, and the results of each interaction.

4. Develop appropriate levels of service to match the patient's acuity and care needs to the most cost-effective intervention

With variable levels of support, Mercy has the flexibility to escalate and deescalate patients between different care navigation programs aligning the cost of resources with the real-time acuity of the patient. This concept is analogous to how traditional brick and mortar hospitals optimize Length of Stay (LOS) between intensive care units vs. observation units to ensure patients receive the appropriate level of care.

5. Expand proactive care to more conditions (Maternity)

In addition to the three chronic conditions Mercy implemented with its coworker and other value-based contracts, leaders also recognized the potential of using this model in other areas of care and piloted the model for postpartum care for new mothers.

When new mothers leave the hospital with their newborn it can be a challenging time. While they may need additional support, they may also be overwhelmed by too-frequent phone calls or other check-ins. The CareSignal breast-feeding module encourages new mothers to breastfeed by following their breastfeeding habits, and asks new mothers if they are breastfeeding, supplementing with formula, or exclusively formula. Patients can also share whether they are experiencing complications while breastfeeding or if they are concerned with their baby's weight. Follow up messaging provides motivational and educational messages. And care managers can respond when alerted. The postpartum depression module helps identify new mothers that may be developing or have postpartum depression using the Edinburgh Postnatal Depression Scale. To accommodate new mothers, the intervention divides the 10-question survey over a few days. Questions may be answered at the convenience of the new mother and questions may even be postponed. Thoughts of self-harm immediately connects the patient with 24/7 National Behavioral Health hotline.

Next Steps

As Mercy expands their Population Health model to provide the right level of care at the right time; technology solutions will be expanded to utilize CareSignal's monitoring solution for post-discharge patients before they leave the hospital. Prior to discharge, care navigators will assess acuity and post-discharge support needs to determine whether the patient will need vEngagement or Mercy Care Connect support when they return home. The patient can be enrolled and educated before they leave the hospital, reducing any delay between discharge and engagement.

Acknowledgments

Thank you to Mary Laubinger and Dr. Justin Huynh for their leadership and vision, and everyone on the Mercy team dedicated to providing quality patient care.

CareSignal™

CareSignal's platform has been expanded across the Mercy health system ministry with modules that now include asthma, depression, hypertension, medication adherence, medication tracking, maternity, and prediabetes/wellness.

It has become much more than an engagement and monitoring tool — the CareSignal team is a trusted and innovative partner. When Mercy encounters a new challenge with patient engagement, the CareSignal team responds to provide consultative solutions that help Mercy achieve its goals.

To learn more, try a self-guide demo or schedule a consultation with sales.

Our mission is to highlight key moments for life-changing intervention, *accentuating* care our partners provide.

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