



Major Health Partners Uses MEDITECH Expanse Hypertension Patient Registries in Population Health Initiative

Hypertensive patients average a 30 percent monthly reduction for those with blood pressure over 160.

Introduction

When Major Health Partners (Shelbyville, IN) formed its Primary Care Council in late 2019, the organization assembled a team of physicians, nurse practitioners, administrators, and the population health director to review multiple chronic management diseases. The committee envisioned creating a program that focused on tracking population health, but they lacked the means to aggregate panels of patients with the same disease.

Upon implementing MEDITECH Expanse, however, MHP recognized that the availability of ambulatory registries provided a means to aggregate and stratify lists. By setting up patient registries, MHP could effectively identify the size and scope of patients with the same disease and prioritize which patient groups they want to target. After studying the community's most common chronic health conditions, the council identified six it would track through the registry program — hypertension, diabetes, hyperlipidemia, obesity, smoking, and depression — and began by implementing a hypertension registry in MEDITECH Expanse.

SNAPSHOT



Opportunity

To improve the health of the community through targeted population health efforts, particularly for hypertension.

Solution

MEDITECH Expanse Patient Registries

Benefits

- Averaging a 30% monthly reduction in patients with blood pressure over 160
- Easily aggregating patients with hypertension and proactively following up, including offering a remote monitor loaner program
- Contracting with manufacturing companies to extend population health to onsite employee clinics

Profile

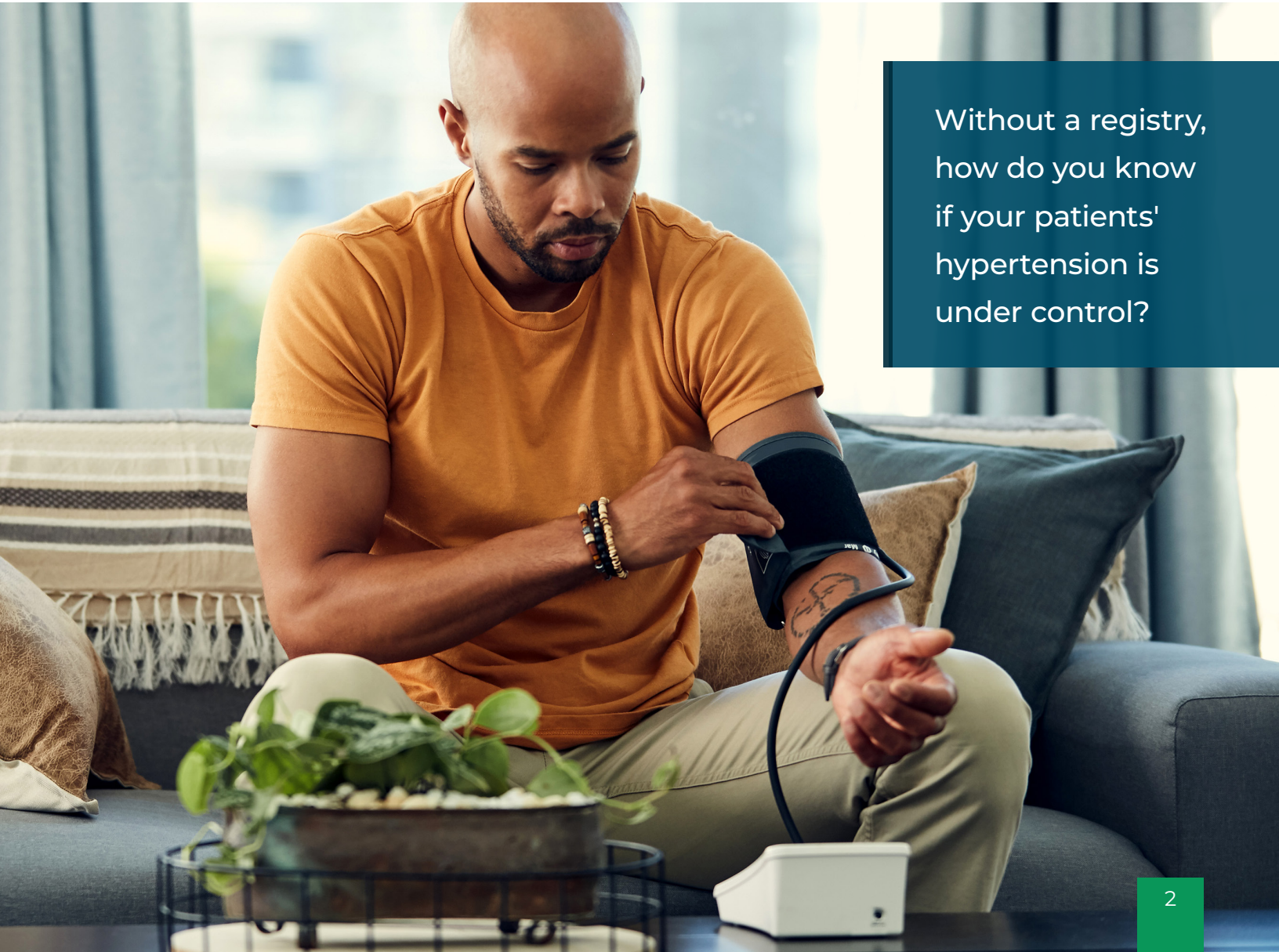
Located in Shelbyville, IN, Major Health Partners is a leading healthcare provider serving communities across Southeast Indiana. Recognized by the National Rural Health Association as a 2020 Top 20 Rural Hospital and named to Becker's Hospital Review's list of 100 Great Community Hospitals three years in a row, MHP has positioned itself as a leader in healthcare informatics and patient satisfaction.

Why hypertension?

Hypertension is the most important modifiable risk factor for preventing heart attack and stroke — two of the leading causes of death worldwide. According to the CDC, approximately 45 percent of US adults have hypertension, yet only about 1 in 4 adults (24 percent) have their condition under control. As MHP rolled out Expanse Patient Registries to pursue its population health efforts, it was clear that they needed to target those patients first.

The program champion, internist Emily Andaya, MD, asked a simple question, “If you don’t have a registry, how will you know if your patients’ hypertension is controlled?” It was clear to Dr. Andaya that MHP had a patient population with poorly regulated hypertension who needed more aggressive follow-up.

To advance its efforts, MHP participates in a hypertension initiative from the American Heart Association called TARGET: BP™, which collaborates with the **Million Hearts Campaign** to prevent one million cardiovascular events by 2022. Dr. Andaya used guidelines from these programs as the basis for MHP’s registry. The director of Clinically Integrated Technology and Systems at MHP aided Andaya’s team by reviewing **MEDITECH’s Hypertension Management Toolkit** and found the registry aligned with AHA guidance, further validating their efforts.

A man with a beard and short hair, wearing an orange t-shirt and khaki pants, is sitting on a dark grey couch. He is looking down at a black blood pressure cuff on his left arm. A white blood pressure monitor is on a table in front of him. In the foreground, there is a small potted plant in a metal cage. The background shows a window with blue curtains and a city view.

Without a registry,
how do you know
if your patients'
hypertension is
under control?

A phased approach to implementation

MHP serves a large population in the southeastern part of Indiana; more than 8,700 of its patients are diagnosed with hypertension. Implementing a tiered tracking system for the registry, the healthcare organization first targeted patients with a blood pressure reading of $\geq 160/90$, with data pulled from a worklist each month. Separate lists are maintained for patients with a systolic blood pressure of 140–150 and 150–160, to be tracked in subsequent phases.

Establishing a project champion helped drive the process to success. Hypertension Navigator and Clinical Coordinator Karla Hunter acts as the liaison, regularly connecting with patients, maintaining a schedule grid, and entering self-monitored patient data into the EHR. If a patient is not at target, she reaches out to the provider for possible medication adjustments or in-office visits. As project champion, she also discusses diet and lifestyle changes with patients, following up with Dr. Andaya and MHP's population health director.

"Having a project champion reach out to patients by phone also provides the added benefit of human touch," explained Carol Huesman, CIO. "During the COVID-19 pandemic, while many of MHP's senior population have been isolated, patients have expressed how much they look forward to receiving a check-in call from Karla. It not only helps keep their hypertension within healthy levels but benefits their mental health as well."

Although patients now play a more active role in checking blood pressure at home, they're also welcome to visit the clinic for a complete device accuracy test to ensure their monitor's data matches the hospital's.

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Carol Heusman
CIO
Major Health Partners



Process changes and a loaner program

The staff at MHP also shifted their approach in how they measure a patient's blood pressure. Readings are no longer taken in hallways, but inside exam rooms, and patients are given five minutes to sit beforehand. Blood pressure is checked on both arms, with the higher value recorded in the EHR. If a reading measures over 140/90, it will be remeasured. If the reading still remains high, the provider is notified.

MHP has launched a lending program for patients who may not be able to afford a blood pressure monitor, or their insurance will not cover one. Hunter tracks the devices' asset tag numbers; patients return the devices when they hit a target reading of $\leq 130/80$ or when insurance begins coverage on a device. As the hypertension registry's success continues, the team is now seeing the original blood pressure monitors beginning to be returned, signaling success for their participants.

Population health management happens outside the hospital, too.

Die cast aluminum manufacturer Ryobi welcomed MHP to launch a population health initiative at its on-site clinic in Shelbyville. Introduced by Dr. Andaya and led by Ryobi's population health coordinator, a former MHP chronic care management nurse, the program aims to reduce health risks for American workers.

To establish a hypertension registry at Ryobi, Dr. Andaya presented the program, including algorithms used by the AHA, to the on-site clinic's providers. By bringing population health management into the workplace, Ryobi and MHP have made, and continue to make, an impact, tracking associates who have high blood pressure.

With the success of their hypertension registry, Ryobi is already in the beginning stages of implementing a diabetes registry and is sponsoring on-site clinics for wearable fitness trackers. The company initially engaged a third party for reporting registry data, but MHP was able to build most of those same elements into Expanse. As a result, Ryobi was able to cancel their third-party subscription and save money every month.



The results

After a year in the making, the hypertension program showed measurable results; blood pressure readings began to trend downward within a few weeks of implementation. Dr. Andaya heads a monthly meeting with the Primary Care Council to analyze data for patients whose blood pressure measures over 160 at the beginning of each month compared to how many patients fall below that number at the end of the month.

New patients continue to be added to registries each month as they are identified as hypertensive, especially as they gradually return for regular checkups following a hiatus during the pandemic. With the EHR chart abstraction process now complete, the team has distributed this list to physicians and is working with them to continue to bring these numbers down.

MHP has routinely seen significant percentage drops for patients beginning the month with systolic BP above 160, and finishing the month below that number. In May 2020, 57 percent of patients monitored improved

to below the under 160 threshold, and throughout 2020 monthly reductions averaged approximately 30 percent. The numbers are expected to rise and settle over the next several months as patients return to MHP, now that COVID-19 concerns have begun to ease.

After seeing measurable improvement in patients in the most high-risk category, MHP began focusing efforts on patients with a blood pressure of 150–159 in September and 140–149 in January, and will continue to lower qualifying rates to patients 130/80 or greater. Targeting populations in these ranges aims to prevent people from rising into the 160+ category.

When the program began, **35.4** percent of patients had registered blood pressure readings over **140**. As of **February 2021**, that percentage has dropped to **33.8** percent.

What's next

MHP has plans to expand its population health tracking through targeted registries for diabetes, hyperlipidemia, obesity, smoking, and depression. The diabetes registry is well underway, incorporating the same hypertension framework and physician and project champion roles.

MHP also uses registries to provide COVID-19 patients with follow-up care after discharge. Registries help make sure a safe environment is maintained, and symptoms are tracked.

When asked about the importance of registries in population health, Dr. Andaya said, “To be able to manage our patients’ conditions better, we need to have a registry. I need to know where I’m at with all the quality measures to serve my patients best. Registries help us do that. They let us see what’s happening.”

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Emily Andaya, MD
Major Health Partners





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