

CASE STUDY

How University of Rochester Medicine Improved Population Health and Hypertension Outcomes with Digital Care Journeys

University of Rochester Medicine (URochester Medicine) is an 8-hospital academic health system serving a diverse patient population across Rochester, NY. Its primary care practices have a specific focus on population health and serve a unique population with many Spanish-speaking patients and individuals with elevated social vulnerability.

Primary care providers at URochester Medicine have been particularly focused on caring for patients with hypertension. Blood pressure (BP) control is a critical priority for URochester Medicine, as it is closely tied to improving patient outcomes and overall population health. Although URochester Medicine was previously using digital care journeys to support patients with hypertension and other conditions, there were limitations with the previous vendor and approach.

To scale its digital care approach going forward, URochester Medicine transitioned to SeamlessMD in 2024 – part of a broader enterprise adoption that initially spanned five care plans: hypertension, stroke, urology biopsy, colonoscopy, and colorectal cancer screening.

A digital health program with friction in the clinical workflow

Although the primary care teams were early adopters of digital health, URochester Medicine’s previous digital care journey solution had limited Epic integration and friction in the clinical workflow:

PROCESS	LIMITATION WITH PREVIOUS PATIENT ENGAGEMENT SOLUTION
Enrollment	Manual, in-person patient enrollment limited reach
Data access	5 to 6 clicks required for clinicians to view BP readings in Epic
Reporting	Limited out-of-the-box dashboards with lots of manual work needed to create reports
Patient experience	English-only content

Key Results

- ↓ 12.07 mmHg
average systolic BP among patients with elevated baseline BP
- ↓ 5.73 mmHg
average diastolic BP among patients with elevated baseline BP
- ↑ 20%
increase in BP readings within target range

These limitations made it difficult to:

- Scale patient enrollment
- Get clinicians engaged with monitoring patient BP and health status
- Address disparities in BP control

Partnering with SeamlessMD for Epic & MyChart-Integrated Digital Care Transformation

URochester Medicine partnered with SeamlessMD to rebuild its hypertension digital care journey program with three priorities:

<p>01</p> <p>Scale patient enrollment</p>	<p>02</p> <p>Integrate directly into Epic and MyChart workflows</p>	<p>03</p> <p>Measure outcomes through an equity lens</p>
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From manual workarounds to automated, embedded care

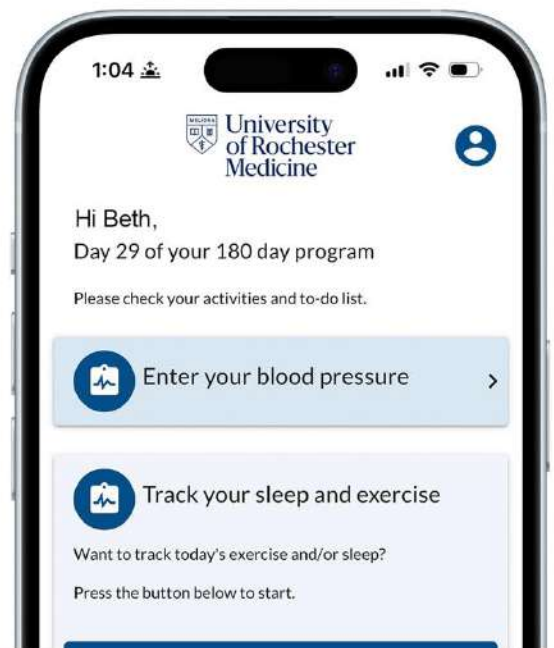
Before SeamlessMD	With SeamlessMD
Manual, in-person patient enrollment	Automated batch enrollment from Epic registry
5 – 6 clicks to access BP data	BP readings written directly to Epic flowsheets - clinicians routinely review at-home readings
Unreliable dashboards; reporting workaround required	Out-of-the-box symptom monitoring and population health dashboards directly embedded in the Epic patient chart

A bilingual hypertension journey, built into everyday care

SeamlessMD worked closely with URochester Medicine’s interdisciplinary clinical, operations and digital teams to develop and launch a bilingual (English & Spanish) digital care plan for hypertension. Through the partnership, URochester Medicine is able to:

- ✓ **Engage patients** with a mobile and web-based care journey, and also accessible via MyChart – guiding them through ongoing blood pressure management between visits
- ✓ **Deliver interactive evidence-based pathways** in the form of multimedia education, reminders, to-do lists, and tasks, covering topics such as how to properly manage blood pressure and interpret results, medication management, low-sodium diet, and more
- ✓ **Monitor patient adherence and trends** (e.g., blood pressure readings, medication adherence, lifestyle behaviors such as diet and activity)

Example home screen on SeamlessMD



- ✓ Automate personalized self-care guidance using smart workflows (e.g., what to do when BP readings are in/out of range, when to recheck, and when to contact a provider)
- ✓ Enable continuous remote monitoring through regular BP submissions and check-ins over time - viewable by URochester Medicine clinicians directly in Epic flowsheets and other monitoring dashboards embedded in Epic
- ✓ Send notifications directly into Epic in basket message pools for care teams to flag patients at-risk (e.g. BP above certain thresholders), enabling timely care team intervention
- ✓ Population health dashboards with aggregated insights, for example, to track % of patients with BP readings under control



Spanish-speaking patients are also supported

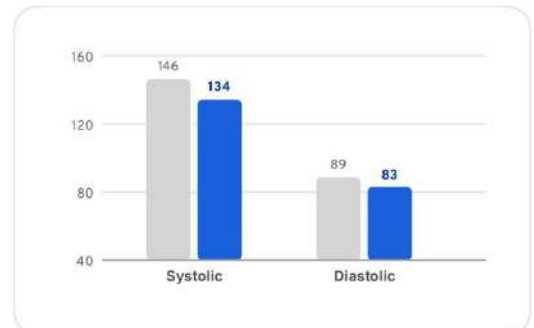
Driving Measurable Improvements in BP Control for URochester Medicine’s Highest-Risk Patients

Through this approach, URochester Medicine achieved meaningful improvements in blood pressure control, particularly among patients with elevated readings at baseline. These gains were sustained over time, with continued engagement driving further improvements in BP control.

Patients with elevated BP at baseline (BP >130/90)

METRIC	FIRST	LAST	CHANGE
Avg Systolic BP	146.42	134.35	↓ 12.07 (-8.99%)
Avg Diastolic BP	88.75	83.01	↓ 5.73 (-6.91%)

n = 110 patients with elevated BPs at baseline. Values in mmHg.



Clinical impact

A ~10 mmHg reduction in systolic blood pressure is widely considered a clinically meaningful threshold.

In this program, URochester Medicine achieved an average reduction of **12.07 mmHg** in systolic BP among patients with elevated baseline readings – exceeding that benchmark. Published evidence shows that reductions of this magnitude are associated with:

~13%

lower all-cause mortality

~20%

lower cardiovascular mortality

At a population level, improvements like these have the potential to meaningfully reduce the risk of heart attacks and strokes – particularly among high-risk patients.

Source: [Lancet meta-analysis \(2016\)](#)

Improvement in BP Control Over Time

MEASURE	MONTH 1	MONTH 6	CHANGE
# of BP readings	1,580	977	—
# of readings within target range*	1,024	757	—
% of BP readings in target range*	65%	77%	↑ 20%



n = 63 patients tracking BP from Month 1 through Month 6.
 *Target BP range: 100-130 / 60-90 mmHg.



We have been impressed with the magnitude of blood pressure reduction we’re seeing with SeamlessMD. **Not only is it clinically meaningful, but at scale, these improved clinical outcomes also translate into significant cardiovascular risk reductions with fewer heart attacks and strokes.** This is so important for our entire patient population, but it is especially noteworthy that we had such significant clinical impact in a higher risk, more vulnerable community.



Dr. Lara Evans

Associate Chief Clinical Officer for Patient Engagement; Director for Patient Reported Outcomes, Quality Institute; Professor of Clinical Medicine at University of Rochester Medicine

IN PATIENTS' WORDS

"It is building good habits in me, specifically around checking my BP every day."

UROCHESTER MEDICINE PATIENT

"I love this program, I don't want to give it up!"

UROCHESTER MEDICINE PATIENT

"It makes me more aware of my blood pressure and heart rate, whereas before I never thought about it."

UROCHESTER MEDICINE PATIENT

LOOKING AHEAD

Following strong results with hypertension, URochester Medicine is expanding the program to multiple primary care practices and additional clinical areas, including CHF and COPD.