Hypertension increases a patient’s risk for stroke and heart disease, which is the second leading cause of death in New Hampshire. Those realities spurred the New Hampshire Million Hearts Learning Collaborative to embark on a year of intense work to pull together a blueprint for improving high blood pressure, modeling the effort after the successful strategies used by Cheshire Medical Center/Dartmouth Hitchcock–Keene over the past few years. This 10-step guide details how clinicians and communities can work together to improve hypertension throughout the state.

**Fast Facts**
- Nearly 2,000 people died in New Hampshire because of coronary heart disease or heart attacks in 2012. Stroke is the fifth leading cause of death in the state causing an additional 438 deaths in 2012.
- The prevalence of hypertension in New Hampshire increased from 23 percent in 2001 to 31 percent in 2011.
- The state’s Department of Health and Human Services, together with clinical and community partners, is working to reduce the percent of adults with high blood pressure to 22 percent by 2020.

**When the health care delivery system works jointly with the public health system, we improve population health outcomes quickly and efficiently.”**

*Dr. José T. Montero, Director, Division of Public Health Services, NH Department of Health and Human Services*

**What We Did**
- We used the work of Cheshire Medical Center/Dartmouth-Hitchcock Keene as the basis for the New Hampshire Million Hearts project. This county-level effort was a Hypertension Control Champion recognized by the Centers for Disease Control in 2013. It demonstrated that rapid, measureable improvement in blood pressure control was possible for a population of more than 12,000 people with hypertension.
- The New Hampshire Division of Public Health Services (DPHS), in partnership with the Institute for Health Policy and Practice (IHPP) at the University of New Hampshire (UNH), worked on a plan to replicate the proven strategies seen in Cheshire County and to adapt them for New Hampshire’s most urban communities – Manchester and Nashua. The communities have large immigrant populations.
- The easy-to-follow, pragmatic steps to implement a comprehensive approach to hypertension care, can be accessed here: http://www.dhhs.nh.gov/dphs/cdpc/documents/tensteps-bpcontrol.pdf
- The manual was primarily authored by Dr. Rudy Fedrizzi of Cheshire Medical Center/Dartmouth-Hitchcock Keene and Kimberly Persson of the Institute for Health Policy and Practice at the University of New Hampshire.
What We Learned

- It’s important to educate, and get engagement and buy-in from providers and staff. Using a survey tool offered the providers and staff an opportunity and an outlet to share their perspectives on effective treatment strategies, clinical barriers, and potential solutions, which cultivated a sense of engagement in the process.

- It is important to have an agreed upon plan of action among providers, to get consensus and an action plan for every patient.

- At the state and federal level there is growing consensus that hypertension control should be consistently measured using the standards of National Quality Measure 18 (NQF 18), a percentage of patients 18 to 85 years old who had a diagnosis of hypertension and whose blood pressure was adequately controlled. Choosing the correct measure and remaining consistent with its use is an imperative step in quality improvement work.

- Taking the time to understand current practice and workflow, using tools such as a workflow chart or fishbone diagram, can identify inconsistencies and help to target evidence-supported solutions to dysfunctional processes.

- Evidence-supported consistency in treatment and triage throughout the community helps eliminate variability in care and provides both patients and providers with clear courses of action to guide best care. This should also lead to more cost-effective care.

What We Accomplished

- Over the course of the year, the Manchester blood control rate among patients went from 66 percent to 75 percent; and the Nashua control rate went from 69.5 percent to 72 percent.

- Partner participants looked at the current process for monitoring patients and found that doctors and nurses were using different techniques to take blood pressure. One of the first steps in the project was to use similar methods and to calibrate equipment across the board so that all patients were getting accurate readings.

- This document can be a guide for other clinical community partnerships as they strive to improve hypertension control for their populations. The first seven steps are best implemented sequentially; steps eight through 10 can be undertaken anytime, as they involve patient and community engagement. Each medical practice and community is unique, however, and the steps can be customized. Here is an outline of the steps:

1. Engaging Providers and Staff  
2. Agreeing on a Shared Vision and Measures  
3. Understanding the Current Process and Flow  
4. Creating Algorithms for Hypertension Care  
5. Ensuring Accuracy of Blood Pressure Measurement  
6. Sharing Provider Data Dashboards  
7. Managing Patient Registries  
8. Consistent Communication and Celebrating Success  
9. Engaging Patients  
10. Fostering Community-Clinical Collaboration

When combined, these ten steps provide a comprehensive, proven approach to improving hypertension control rates for any practice and community.”

- Dr. Rudy Fedrizzi, manual co-author, of Cheshire Medical Center/Dartmouth-Hitchcock Keene

What We Are Doing Now

We are now spreading the word throughout the state. The New Hampshire Department of Health and Human Services recently invited clinicians and community partners to an interactive, half-day workshop about implementing the guide’s strategies.