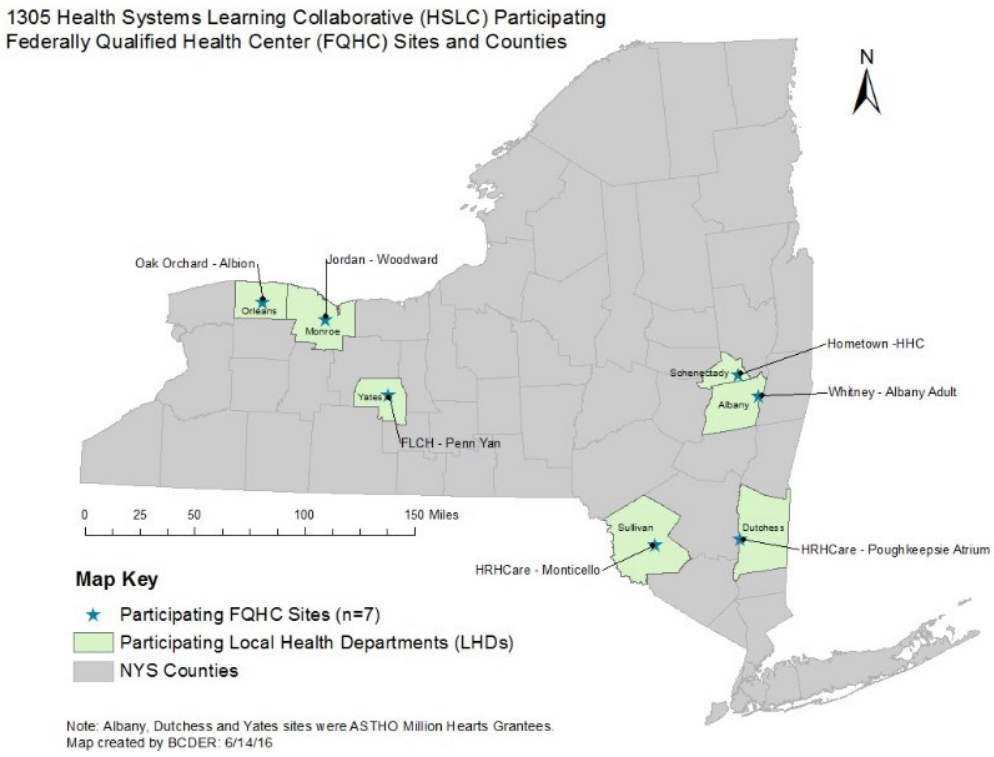
Increasing Implementation of Quality Improvement Processes to Improve Blood Pressure Control Federally Qualified Health Centers (FQHCs), 2013-2018

Problem

High blood pressure (HBP), known as the silent killer because it often has no warning signs or symptoms, is a major modifiable risk factor for cardiovascular disease (CVD). Nearly 1 in 3, or 4.8 million adults in NYS have HBP (2013). HBP is more common among certain populations, including low income adults, adults who identify as non-Hispanic Black, and adults with a disability. Controlling HBP through diet, exercise, self-management, medication adherence and quality preventive care is essential for the prevention of CVD. The healthcare delivery system in NYS is diverse and complex, but the advent of health information technology provided new opportunities for the identification and management of patients with HBP. These opportunities included health system changes, such as the institutionalization and monitoring of standardized clinical quality measures (CQMs), and process of care changes at the practice level, which have been shown to enhance rates of HBP diagnosis, treatment and control. The New York State Department of Health (NYSDOH) partnered with three entities to implement data-driven health systems and process of care changes to improve outcomes for priority populations with HBP.

Intervention

In 2013, NYSDOH received funding from the Centers for Disease Control and Prevention to improve the prevention and control of CVD in health systems by facilitating prevention, early diagnosis and quality management of HBP. NYSDOH partnered with HealthEfficient, a Health Center Controlled Network, seven of their member Federally Qualified Health Centers (FQHCs) and six local health departments (LHDs) to test and implement evidence-based strategies through a four-year quality improvement (QI) learning collaborative. Teams of clinical and LHD staff implemented Plan-Do-Study-Act cycles to test small changes and participated in monthly calls to facilitate peer learning. Some of the implemented changes included increasing the use of health information technology to improve quality of care, defining and adopting standardized measures to identify and manage patients with HBP, increasing engagement of non-physician team members in HBP management, and increasing the use of blood pressure self-monitoring with clinical support to improve patient engagement and HBP control.



Health Impact

System Changes

The number of FQHCs in the state with electronic health records appropriate for treating patients with HBP **increased by 30%, from 47 in 2012 to 61 in 2016**. For the seven FQHC sites participating in the QI collaborative, **eight** CQMs including measures for diagnosed and undiagnosed HBP and HBP control were programmed into an analytics platform to support the development of patient registries and prompt QI at the practice sites. **These CQMs are available for 140,764 adult patients** across the participating sites.

Process of Care Changes

O**ver 50 Plan-Do-Study-Act cycles were implemented** to test small changes to improve care for patients with HBP. A survey of FQHC staff revealed the most impactful Plan-Do-Study-Act cycles for HBP management included pre-visit planning, blood pressure measurement training, establishing routine monthly reports of electronic CQMs, rescheduling for patients with gaps in care, collaborating with a community pharmacy and establishing a protocol for following up on patients with elevated BP readings.

Changes in Health Outcomes

Between 2012 and 2016, the percentage of FQHC patients with HBP who had their blood pressure controlled (<140/90mmHg) **increased by 2.4%, from 63.6% to 65.1% across NYS.** Although the QI collaborative was implemented as intended, overall improvement goals related to HBP diagnosis and management have not yet been achieved. More work is needed to understand which system and process of care changes have the greatest impact on health outcomes. NYSDOH will continue to scale and sustain successful changes at the systems and practice level to improve the identification and management of HBP among priority populations.

RESULTS SUMMARY

SYSTEM CHANGES

30% ↑ in electronic health record adoption among FQHCs
8 HTN CQMs mapped covering 140,764 adults

PROCESS OF CARE CHANGES

>50 PDSAs implemented

HEALTH OUTCOMES

2.4% ↑ in HBP control among FQHC patients