TRANSFORMING SYSTEMS
SAVING LIVES

What does it take to improve BLOOD PRESSURE CONTROL in <1 YEAR?

It takes everyone—all kinds of partners throughout public health, healthcare, and state and local communities working together toward a single goal. The Association of State and Territorial Health Officials (ASTHO), with its Million Hearts State Learning Collaborative, supported the efforts of 20 states, the District of Columbia, and the Republic of Palau, to help save lives by preventing heart attacks and strokes through blood pressure control.

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Changing the Way Public Health Does Business

ASTHO's Million Hearts State Learning Collaborative has transformed the way state public health can help prevent, detect, and treat hypertension and chronic diseases. The collaborative helped states **reach more people** living with diagnosed and undiagnosed hypertension; **spread blood pressure control activities** to other communities; and **leverage results** to ensure sustainability and secure additional funding.

Through a new systems change model, the collaborative:

helped **20 states, the District of Columbia, and the Republic of Palau** use findings from the project to inform the use of other federal funding

engaged nearly **300 state and local partners** across the country

identified nearly **27,500 individuals** at risk for hypertension

supported nearly **15,000 individuals** in controlling their blood pressure

developed and implemented more than **100 data exchange, referral, and follow-up protocols**

POTENTIAL TO REACH* **>5.5 MILLION PEOPLE**

with *diagnosed and undiagnosed* **hypertension** and their supporters.

*Based on state-reported data for potential reach

"The Million Hearts State Learning Collaborative builds upon lessons learned from nationwide efforts to reduce the risk factors associated with heart disease and stroke supported by federal funding for State Public Health Actions (DP13-1305) across all 50 states and the District of Columbia. CDC's Division for Heart Disease and Stroke Prevention has invested in the collaborative to energize select states to accelerate action around hypertension prevention, detection, and control. We were excited to see a measurable health impact across the states in a short period of time and will promote successful strategies nationwide."

— ***Letitia Presley-Cantrell,***
CDC's Division for Heart Disease and Stroke Prevention

Learning Collaborative Framework

Between 2013 and 2016, ASTHO selected

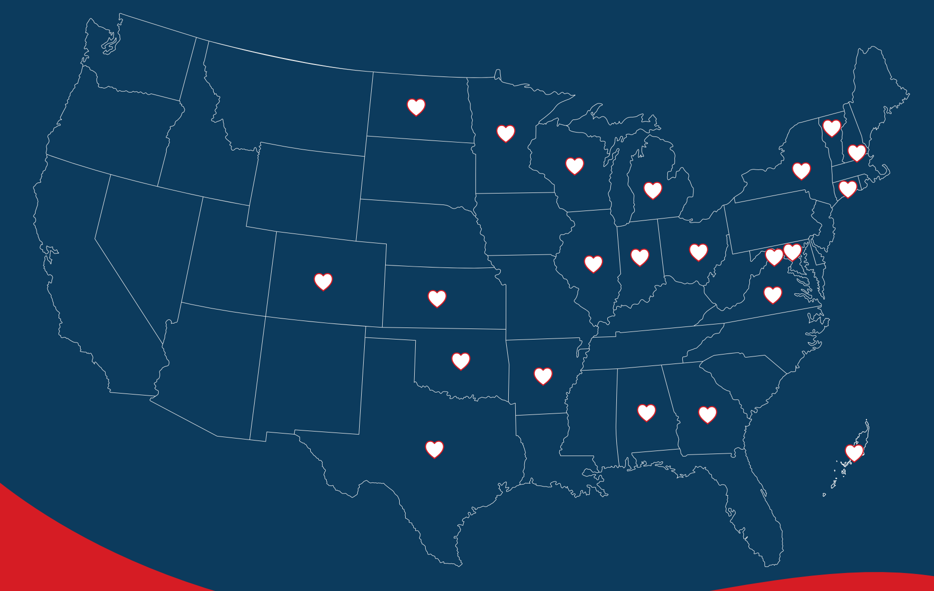
20 STATE PUBLIC HEALTH AGENCIES,

THE DISTRICT OF COLUMBIA, AND THE REPUBLIC OF PALAU

to participate in the

Million Hearts State Learning Collaborative.

ASTHO brought state teams together to share insights and tools to help strengthen and transform blood pressure control across the nation. In each year, the collaborative evolved to expand its reach and impact.

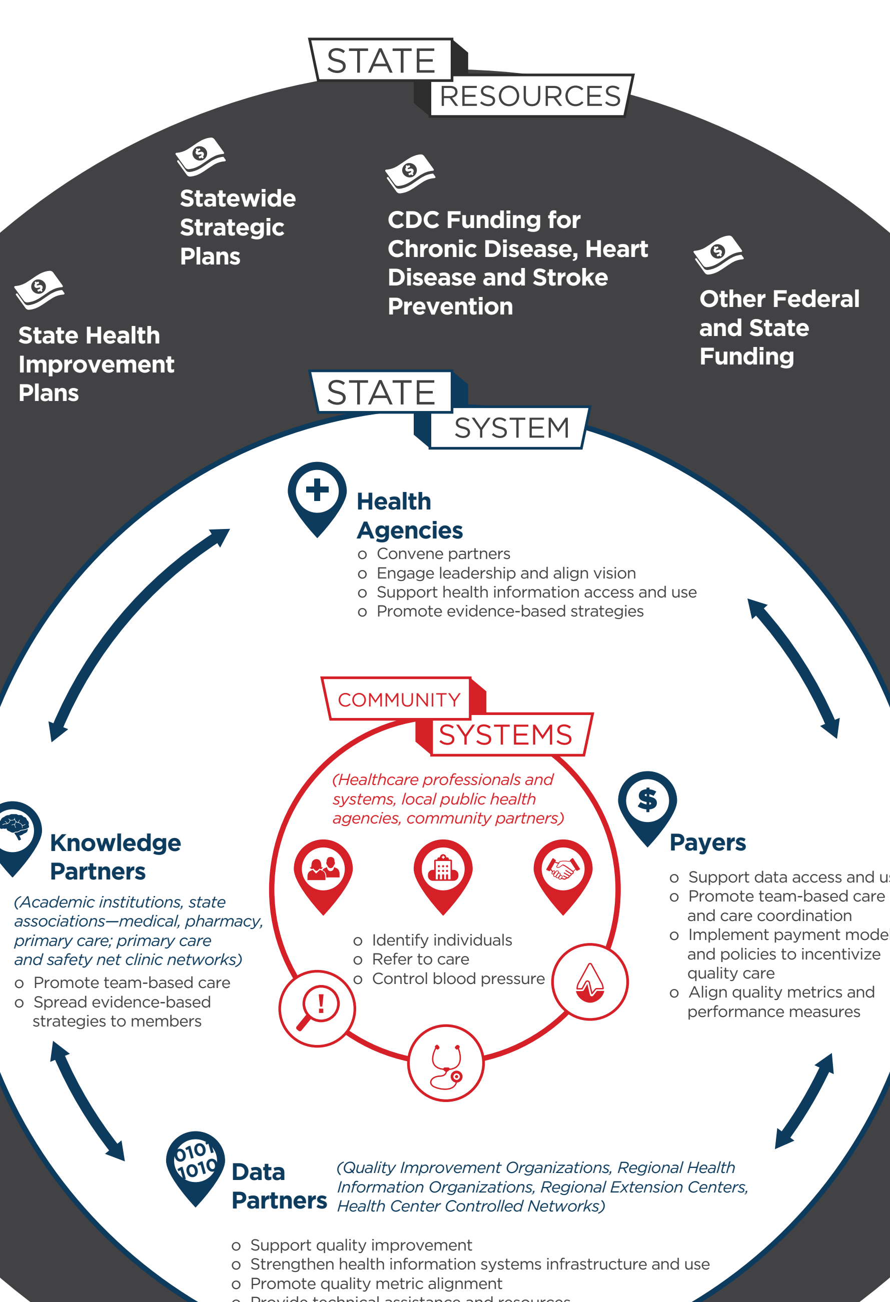


A New Systems Change Model

With support from CDC's Division for Heart Disease and Stroke Prevention, ASTHO and participating state teams created and refined a new systems change model for public health. The collaborative engaged minds across state and local communities—including public health agencies, healthcare, quality improvement organizations, health information technology experts, payers, and community-based organizations—to develop, expand, and sustain efforts to improve hypertension prevention, detection, and control.

Using this interrelated model, and building on lessons learned from CDC-funded efforts nationwide to prevent heart disease and stroke (DP13-1305), states made extraordinary progress toward improved hypertension prevention, detection, and control. This integrated approach sparked a system-wide effort and set the bar for how state public health can help prevent and control hypertension, as well as other chronic disease areas.

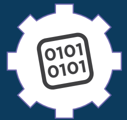
> *"The collaborative challenged us to think beyond traditional public health partnerships. Soon, we were working with physicians, nurses, pharmacists, hospitals, and insurers. Together, we helped 25 percent of our participants in the Oklahoma Heartland areas control their blood pressure in just 90 days."*
>
> — ***Terry Cline, Oklahoma State Department of Health***


STATE
RESOURCES
Statewide Strategic Plans
CDC Funding for Chronic Disease, Heart Disease and Stroke Prevention
State Health Improvement Plans
Other Federal and State Funding
STATE
SYSTEM
Health Agencies
o Convene partners
o Engage leadership and align vision
o Support health information access and use
o Promote evidence-based strategies
COMMUNITY
SYSTEMS
(Healthcare professionals and systems, local public health agencies, community partners)
o Identify individuals
o Refer to care
o Control blood pressure
Knowledge Partners
(Academic institutions, state associations—medical, pharmacy, primary care; primary care and safety net clinic networks)
o Promote team-based care
o Spread evidence-based strategies to members
Payers
o Support data access and use
o Promote team-based care and care coordination
o Implement payment models and policies to incentivize quality care
o Align quality metrics and performance measures
0101
1010
Data Partners
(Quality Improvement Organizations, Regional Health Information Organizations, Regional Extension Centers, Health Center Controlled Networks)
o Support quality improvement
o Strengthen health information systems infrastructure and use
o Promote quality metric alignment
o Provide technical assistance and resources

ASTHO's Success Stories: Transformation in States

The Million Hearts States Learning Collaborative proved that connections across public health, healthcare, communities, and other sectors can result in improved health outcomes.

Using a framework of rapid-cycle quality improvement, states are implementing activities for data-driven action, standardizing clinical practice, community-clinical linkages, and financing and policy to turn the gears and generate systems change and improved health outcomes. Evidence-based programs provide examples of successful strategies to turn each gear.



Data-driven Action

As part of ongoing data collection and analysis—using health information technology to facilitate data collection and sharing—states derived key insights to inform their hypertension activities and identify at-risk populations.

NEW YORK STATE

The New York State Department of Health (NYSDOH) applied an existing role in identifying performance measures and specifications to new data sets, including local health information exchange and medication claims data. NYSDOH partnered with a regional health information organization to calculate real-time, county-level rates of hypertension, hypertension control, and undiagnosed hypertension, and worked with the Health Center Network of New York (HCNNY) to support federally qualified health centers (FQHCs).

HCNNY helped the FQHCs use their electronic health record systems to identify and follow up with patients with undiagnosed hypertension; develop evidence-based clinical hypertension management protocols; and improve blood pressure measurement and recording accuracy. Additionally, NYSDOH and the New York State Office of Health Insurance Programs successfully promoted the adoption of a 90-day pharmacy benefit by Medicaid managed care plans.

The hypertension control rate **ACROSS FQHCs**

IMPROVED BY **18.7%**,

between September 30, 2013, and May 31, 2015

(from baseline hypertension control rate 56.9% to 67.5%).

Overall, NYSDOH's work during the learning collaborative's first two years reached **10,218 patients across three health centers in three counties**, including 3,701 patients with diagnosed hypertension (both diagnosed and previously undiagnosed).

New York State also:

- ***Standardized three hypertension measures*** *(prevalence, control, and undiagnosed hypertension) in one regional health information organization;*
- *Spread the measures to an additional* ***23 practices*** *for a total of* ***26 practices****;*
- ***Is currently testing three hypertension measures*** *in the MEDENT EHR system with* ***six practices*** *recruited by New York State's QIN/QIO Cardiac Population Health Initiative; and*
- ***Sustained the use of clinical treatment protocols*** *for hypertension in* ***three practices****, and an additional* ***three practices*** *adopted the protocol.*

Community-Clinical Linkages

State teams created sustainable, effective connections between healthcare, public health, and other states to improve access to hypertension services and support throughout the care continuum, as well as increase data sharing among states.

OKLAHOMA

The Oklahoma State Department of Health (OSDH) and other key partners developed the Oklahoma Heartland Project, a community-based referral and care coordination system connecting patients with hypertension to community services through a public health nurse care coordinator.

Since 2014, the model has been adopted and adapted to local infrastructure and community partners (not including Indian Health Service) in **12 counties**. It is also expanding to provide telepharmacy services through new partnerships with the University of Oklahoma College of Pharmacy and the Southwestern Oklahoma State University College of Pharmacy.

THE OKLAHOMA HEARTLAND PROJECT IS NOW IN 12 COUNTIES

(not including Indian Health Service).

TO DATE,

27 PARTNERS

are still engaged in what has become

A MODEL FOR OTHER CHRONIC DISEASE PREVENTION AREAS.

Building on this effort, OSDH and BlueCross BlueShield of Oklahoma tested a pay-for-performance reimbursement model that paid providers and care coordination team services when patients achieved blood pressure control.

OSDH calculated the return on investment (ROI) of the Oklahoma Heartland Project using ASTHO's ROI analysis tool. Assuming a 45-percent reduction in cardiovascular disease-related preventable hospitalizations, OSDH estimated that community-based care coordination models, such as the Oklahoma Heartland Project, could result in an ROI of **$160 per $1** (based upon 2012 data for the average ER cost of a single cardiovascular disease event).

OSDH now uses this estimate to inform payers and other key stakeholders about the value of investing in community-based care coordination models.

ALABAMA

The Alabama Department of Public Health (ADPH) has forged landmark partnerships between Medicaid, Medicare, and private payer claims data. The Mobile County Health Department focused efforts on finding patients with hypertension and diabetes "hiding in plain sight."

DURING A SEVEN-MONTH PERIOD,
THE MOBILE COUNTY HEALTH DEPARTMENT
IDENTIFIED AND DIAGNOSED
995 PATIENTS
WITH PREVIOUSLY UNDIAGNOSED HYPERTENSION
and 159 patients with diabetes.

Based on this success, the state awarded five mini-grants to clinics around the state to implement quality improvement initiatives for hypertension and A1C testing.

ADPH is also using the lessons learned to engage the states' **11 regional care organizations** in discussion about aligning clinical quality measures to include the ABCS: aspirin for people at risk, blood pressure control, cholesterol management, and smoking cessation.

VIRGINIA

The Virginia Department of Health (VDH) estimated **nearly 1 million Virginia residents over 20 years of age** were living with uncontrolled hypertension in 2015. In the first year of the project, VDH strengthened relationships with FQHCs and continued to work with FQHCs statewide to begin using patient registries to identify patients at risk for or living with hypertension and establishing protocols to refer patients to pharmacists for medication therapy management. VDH will also continue to promote blood pressure screening and referral protocols within its own public health clinic system.

THE GOAL IS TO SPREAD VIRGINIA'S MILLION HEARTS STRATEGIES TO INCREASE THE REACH OF INDIVIDUALS WITH UNCONTROLLED HYPERTENSION ACROSS THE STATE BY 4% BY 2020, WHICH COULD YIELD

POTENTIAL MEDICAL COST SAVINGS OF ***NEARLY $80 MILLION PER YEAR.***

*Building on successes and partner engagement through Million Hearts, Virginia is using CDC Chronic Disease Prevention funding to work with **five local health districts** to develop regional dashboards to improve shared measurement and update key health indicators across health planning regions. To date, **six local health districts** have aligned their dashboards and integrated them into the community health assessment and community health improvement plans process.*

Standardizing Clinical Practice

By standardizing practices and protocols, states leveraged best practices and tracked progress against similar public health systems and departments.

NEW HAMPSHIRE

The New Hampshire Department of Health and Human Services set out to reduce hypertension rates among its **two most populous regions**, Manchester and Nashua, by standardizing treatment and referral protocols for patients with elevated blood pressure.

Two clinics in Manchester and Nashua developed hypertension registries to identify patients with hypertension and adopted triage and treatment protocols as well as medication algorithms to standardize the care these patients receive.

IN CLINICS THAT HAVE IMPLEMENTED HYPERTENSION CONTROL PROJECTS

(INCLUDING THOSE FUNDED BY ASTHO AND CDC-CHRONIC-DISEASES-FUNDED SITES),

HYPERTENSION CONTROL

IMPROVED BY AN AVERAGE OF 11%,

FROM BASELINE HYPERTENSION CONTROL RATES RANGING FROM 58-73% ACROSS SEVERAL CLINICS.

The clinics also standardized processes for assuring accurate blood pressure measurement, including equipment calibration and staff training on proper measurement technique. Manchester and Nashua implemented hypertension registries and have shown an average **11-percent improvement** in hypertension control rates. The partnerships developed through the New Hampshire Million Hearts State Learning Collaborative are examples of how public health and primary care integration can lead to sustainable models of care. Further, these efforts are being disseminated statewide and to other states who have indicated interest.

*To spread their work, statewide partners developed "***10 Steps for Improving Hypertension Control in New Hampshire***," a manual that allows other healthcare sites across the state to adopt these strategies. For example, the New England quality improvement network-quality improvement organization (QIN/QIO) is using the manual and accompanying patient wallet card to help additional clinics adopt these strategies.*

Financing and Policy

The learning collaborative helped states create a sustainable system to improve hypertension prevention, detection, and control through payment reform.

VERMONT

The Vermont Department of Health (VDH) brought together a team of cross-sector partners, including the Department of Vermont Health Access (the state Medicaid agency) and BlueCross BlueShield Vermont, to use medication claims data to support medication adherence. Together, the team used medication claims data for **64,400 patients** to help identify individuals with low medication adherence and support clinical management to improve adherence.

> *"The Million Hearts State Learning Collaborative can be adapted for use with other health issues, such as cervical cancer screening or HPV. The learning collaborative model—and the partnerships that it has galvanized—can be leveraged for future work in public health."*
>
> — ***Harry Chen, Vermont Department of Health***

LESSONS LEARNED FROM THE PROJECT **LED TO** THE ADOPTION **OF BLOOD PRESSURE CONTROL** AS A **PAYMENT CATEGORY MEASURE** FOR COMMERCIAL AND MEDICAID ACCOUNTABLE ORGANIZATIONS.

Lessons learned from the project led to new conversations with stakeholders and ultimately adoption of blood pressure control as a payment category measure for commercial and Medicaid accountable care organizations. VDH staff played a key role in supporting the addition of this measure.

Vermont's work through the Million Hearts State Learning Collaborative provided an opportunity to work more closely with the Vermont Healthcare Claims Uniform Reporting and Evaluation System, Vermont's all-payer claims database, and learn new ways to use the database to improve health.

Notable Systems Changes

Through a three-year concerted effort, ASTHO learned that while there are many methods to identify, prevent, control, and treat hypertension, there are four key themes to lasting success.

LEVERAGE DATA
to drive action.

BUILD PARTNERSHIPS
across public health, healthcare, and communities.

STANDARDIZE PRACTICES
and protocols.

GAIN SUPPORT
(financial and political).

The Million Hearts State Learning Collaborative proved that connections across sectors to transform systems can result in improved health outcomes. ASTHO also identified six strategies for achieving positive results:

- **Build partnerships** across public health, healthcare, and communities.
- **Use data** to identify patients and drive quality improvement.
- **Standardize practices and protocols** for treatment, workflows and referrals.
- **Gain support** from leadership, payers, and policymakers.
- **Incorporate successful strategies** in state strategic plans.
- **Leverage other statewide initiatives** and chronic disease prevention efforts.

For additional information and to view ASTHO's Tools for Change, visit
WWW.ASTHO.ORG/MILLION-HEARTS/STATE-LEARNING-COLLABORATIVE-TOOLS-FOR-CHANGE

ASTHO's Tools for Change

As the leader of the Million Hearts State Learning Collaborative, ASTHO responded to states' needs by creating Tools for Change—a resource hub of more than 300 tools to support states in preventing hypertension through systems change. Tools focus on the four key themes for lasting success.

LEVERAGE DATA TO DRIVE ACTION.

- Algorithms
- Heat maps
- Clinical dashboards and reports
- Data sharing agreements and user guides

BUILD PARTNERSHIPS ACROSS PUBLIC HEALTH, HEALTHCARE, AND COMMUNITIES.

- Patient and provider engagement materials and forms
- Workflows and forms
- Referral systems and protocols

STANDARDIZE PRACTICES AND PROTOCOLS.

- Workflows and clinical protocols
- National recommendations and guidelines
- State and community examples

GAIN FINANCIAL AND POLITICAL SUPPORT.

- Return on investment tools and examples
- Reimbursement summaries and webinars
- Overviews of public and private payer's initiatives