Culminating Meeting of the ASTHO-CDC Heart Disease and Stroke Prevention Learning Collaborative
Summary Report
July 30-31, 2018

Executive Summary

ASTHO and CDC hosted the culminating meeting of the five-year ASTHO-CDC Heart Disease and Stroke Prevention Learning Collaborative at CDC's headquarters in Atlanta on July 30-31, 2018. Teams representing 19 jurisdictions convened to share experiences with and insights from their respective hypertension programs, including successes, lessons learned, and anticipated or hoped-for future efforts beyond the collaborative.

Dr. Letitia Presley-Cantrell, chief of the Program Development and Services Branch of CDC's Division for Heart Disease and Stroke Prevention, provided an overview of the collaborative's scope, objectives, and history, and of relevant CDC-funded programs. She highlighted best practice strategies to reduce hypertension (e.g., team-based care, pharmacy collaborative practice agreements, and utilization of community health workers [CHWs]), and characterized key activities across the collaborative.

Other presenters outlined:

- ASTHO's evaluation process and how to obtain data to identify patients and measure progress from all 31 jurisdictions participating in the collaborative, as well as ideas for further evaluation efforts and services.
- A summary of the Commonwealth of the Northern Mariana Islands (CNMI) team's perspectives and experiences regarding approaches to designing and leveraging data systems to support positive outcomes. (For example, they relied on a Microsoft Access database and infographics, along with high-quality interaction with patients).
- Principles of and techniques for adaptive leadership.
- The technical assistance, resources, and capacity building available through ASTHO, specifically in terms of performance improvement research and evaluation, population health improvement, and resources related to Project ECHO.

Jurisdiction teams provided brief (seven-minute) descriptions of their programs, highlighting successes and lessons learned. The teams conveyed their experiences and outcomes using a wide variety of presentation formats and styles. The presentations showed how jurisdictions' initiatives aimed to help people in defined communities lower and manage hypertension using practices and methods that could be sustained beyond the grant period. Teams' broad areas of activity included data-driven action, financing and policy, standardizing clinical practice, and community-clinical linkages.

Participants engaged in breakout discussion, first by role and then within jurisdiction teams, to name key takeaways from the meeting, identify opportunities to expand systems, and consider possible applications of new resources and skills. A partial list of suggested areas for action includes chronic disease management during a natural disaster, transportation challenges, simplifying systems to avoid patient confusion, electronic health record (EHR) functionality and interoperability, and stakeholder buy-in.

Recordings of plenary presentations and discussion of the full group can be found at the links below:

- Day 1 Recordings
- Day 2 Recordings

Introduction

In the United States, heart disease is the leading cause of death and strokes are the leading cause of serious long-term disability.[i,ii] Hypertension (high blood pressure) is a major risk factor for heart disease and stroke. One in three people in the United States have hypertension, and approximately half are unaware of their diagnosis.[iii] To support states, freely associated states, territories, and tribal serving organizations in reducing the burden of heart disease and stroke on the public's health, ASTHO and CDC's Division for Heart Disease and Stroke Prevention developed a process to support systems change to improve health outcomes and reduce hypertension. From 2013 to 2018, ASTHO and CDC facilitated the ASTHO-CDC Heart Disease and Stroke Prevention Learning Collaborative (hereafter learning collaborative), a five-year initiative to prevent, detect, and treat hypertension using innovative strategies and cross-sector partnerships. Over the course of the five years, ASTHO and CDC worked with 31 jurisdictions toward the following objectives:

- Improve hypertension control and prevention and achieve national blood pressure control goals.
- Increase the percentage of patients 18–85 years of age who had a hypertension diagnosis and whose blood pressure was adequately controlled during the measurement year.
- Identify and build networks and cross-sector partnerships to control hypertension.
- Test models for collaboration between public health, healthcare, and community partners.
- Deploy a quality improvement process to affect practice and policy at all levels of the system.

Jurisdictions established new partnerships and protocols throughout their experience in the learning collaborative to successfully improve hypertension control across defined populations of focus. Activities included virtual meetings, in-person visits, and stakeholder meetings, where the stakeholder teams focused on small changes that could later be scaled up. During the first three years of the learning collaborative, participants were in a single cohort to refine the logic model and test system change models. During the fourth and fifth years, participants were separated into three different cohorts to focus on systems change models for payers, familial support, and state and tribal partnerships.

ASTHO and CDC convened teams from 19 of the 31 jurisdictions that participated in the learning collaborative as a capstone of the five-year project. Objectives of this culminating meeting included:

- Sharing and documenting program updates, successes, and challenges, along with anticipated future directions for each jurisdiction's systems-level approach.
- Identifying opportunities for technical assistance and capacity-building assistance.
- Promoting collaboration across sectors and between CDC, ASTHO, and jurisdictions to address hypertension, heart disease, and stroke prevention.

Meeting participants were able to share experiences from across all five years of the learning collaborative and reinvigorate teams to continue systems change initiatives within their jurisdictions. The sections below summarize the meeting presentations and breakout sessions. (For the meeting

participant list, see Appendix A, and for the agenda, see Appendix B. For materials used in the breakout sessions, see Appendix C, and for graphic recordings of the meeting sessions, see Appendix D.)

Systems Change for Improved Health Outcomes
Presenter: Dr. Letitia Presley-Cantrell (chief of the Program Development and Services Branch of CDC's, Division for Hearth Disease and Stroke Prevention)

Presley-Cantrell provided a high-level overview of CDC-funded programs as of the end of 2017 and illustrated how the five cohorts for this initiative were phased in from 2013 to 2018. She noted that the learning collaborative aimed to provide an opportunity to encourage creative paths towards improved health outcomes. This initiative utilized a dual approach of combining tailored interventions and population-wide interventions with a health opportunity lens. Dr. Presley-Cantrell reviewed the core areas of focus for this five-year initiative: tracking and monitoring clinical measures, implementing team-based care, and linking community resources and clinical services. She noted that 80 percent of people with hypertension have health insurance, but that less than half of those individuals have reached control. She also highlighted the following best practice strategies:

- *Health systems interventions*, e.g., team-based care, pharmacy collaborative practice agreements, self-measured blood pressure with clinical support, self-management support and education, reduced out-of-pocket costs for medication, and clinical decision support systems.
- *Community clinical linkages*, e.g., CHWs and medication therapy management.

Areas of activity within the ASTHO-CDC Heart Disease and Stroke Prevention Learning Collaborative included data-driven action, financing and policy, standardizing clinical practice, developing sustainable systems to improve hypertension control among all patient populations, and community-clinical linkages. Cross-sector connections aimed to improve outcomes through rapid-cycle quality improvement. These processes involved using jurisdiction- specific to strengthen or build partnerships with payers, data partners (e.g., academic institutions, state-level associations, and clinic networks), and knowledge partners (e.g., Quality Improvement Organizations and Regional Health Information Organizations).

Presley-Cantrell referenced W.E.B. DuBois' sociological study *The Philadelphia Negro* to describe why underserved populations have difficulty trusting and working with the medical establishment.[iv] Examples include experiences of racial prejudice, poverty, unsanitary dwellings, housing discrimination; low quality of food and poor dietary health, lack of exercise, poor air quality, and superstitions regarding medical advice. Going forward, priorities for these populations should include:

- Improving the hypertension control rate.
- Supporting people who identify as black to control their hypertension, as these individuals are twice as likely to die from preventable or avoidable conditions related to hypertension.
- Adjust definitions of priority populations (e.g., age thresholds, demographics) to make progress in eliminating health disparities.

Rapid Jurisdiction Presentations
Jurisdiction teams provided brief (seven-minute) descriptions of their initiatives, highlighting their successes and lessons learned. The jurisdiction teams were encouraged to convey their experiences and outcomes creatively, and did so using a wide variety of presentation formats and styles. Presentations

were ordered by the year the jurisdictional team entered the learning collaborative. The described initiatives were intended to help people in a defined community or jurisdiction lower and manage hypertension using practices and methods that could be sustained beyond the grant period.

Alabama: Year 1 and Year 5 Familial Support

Alabama leveraged state resources to improve state systems, to try to create healthier community systems in Mobile County, Alabama. The Mobile County Health Department supported a CHW in its urgent care center to facilitate referrals from urgent care to primary care providers and behavioral health. Ninety-one percent of patients identified (135 of 148) were successfully referred for additional services. However, while the referral rate was high, the attendance at familial support activities was low (9%). The Alabama team plans to improve and diversify the activities offered at the time of referral, because employing a CHW proved to be a cost-efficient way to support patients at the urgent care center. The health department acknowledges that it needs to update its processes for meeting client needs after the CHW visit in urgent care and before a return visit for referral services.

Arkansas: Years 1-5

The Arkansas Department of Health team participated in the learning collaborative over three years and in four cohorts. Its team-based care initiative promoted adult blood pressure screening, medication adherence monitoring and counseling, patient weight monitoring, and lifestyle change education. The team's pharmacy innovation initiative supported pharmacists at four locations who provided brief hypertension management counseling and referred patients to a nurse care manager for care coordination. The team's payer collaboration on transitions of care fostered an integrated model for transitioning patients from emergency departments to team-based care and medical homes, with a goal of reducing hospital readmissions and urgent care revisits to reduce hospital costs. The team's familial support project encouraged patient-family member and caregiver groups to participate in supportive activities such as self-monitoring blood pressure, accessing food boxes from a community health center, using transportation support, and attending health education classes to improve blood pressure control.

The team-based care initiative resulted in an 84 percent medication adherence rate. A pre-post comparison of data from 58 hypertensive patients with two or more visits showed that 26 (44.8%) had a clinically significant reduction of at least 5 mmHg in systolic blood pressure between their first and last visits. The team-based care approach improved partnerships between rural primary care physicians and the local health units, resulting in better management of hypertension among the treated rural Arkansans. The transitions of care initiative resulted in medication adherence for 85 percent of patients, and 20.6 percent of treated patients had blood pressure reductions. In addition, the medical expense ratio (a valuable measure for providers) decreased by 49 percent, with declines in 30-day readmission and urgent care revisit rates. The familial support initiative resulted in medication adherence among 57 percent of patients and control among 85.7 percent of patients.

Key lessons for continued and future programming in Arkansas include the importance of staff and partnerships. Nurses were an essential component of the jurisdiction's team-based care approach, while payers, providers, and public health staff were essential for systems level quality improvement. There is potential with these strategies to expand projects across the state.

Michigan: Year 2

The team expanded support of the Million Hearts initiative through the learning collaborative in two pilot counties. During the project period, the team entered into a partnership with American Heart Association, shared and promoted evidence-based standards, and improved collaboration to reduce

incidence of heart attacks and strokes. The team found that patients in the state with undiagnosed and uncontrolled hypertension were not being identified and supported. Out of 50,000 patients seen by the health department, approximately 3,000 under the age of 65 had high blood pressure readings without a diagnosis. The team realized that for continued programming, it is essential to have a motivated and engaged team to help overcome interoperability issues with EHRs, navigate competing priorities among clinics, and identify patients without a diagnosis who have not reached control. The team plans to utilize information gathered from these projects in work on clinical and community linkages.

North Dakota: Year 2

North Dakota's team aligned its efforts with the Million Hearts initiative goals throughout the state, offering hypertension reduction resources and technical assistance, and sharing best practices among health providers. Their program began in one county then expanded to nine. As of July 2018, 161,000 individuals could be reached through this work. As the programs expanded, the team found provider training to be an important component of this work. As such, BlueCross BlueShield trained providers in the state to use the blood pressure toolkit. To continue addressing the correlation between heart and stroke events and untreated hypertension, the team plans to work with other partners to build on work from this pilot initiative.

Colorado: Year 3

Partners in Colorado implemented a bi-directional referral system for hypertension for local public health and primary clinics to use to improve hypertension diagnosis and control among their community members. To ensure that patients with elevated blood pressure readings were referred to services across sectors in a timely manner, the team established a shared electronic bi-directional communication method. The Colorado team presented via a skit and song about hypertension in the state.

Connecticut: Year 3

Connecticut's team aimed to identify high-risk patients and get them to clinics to establish good blood pressure control. The team screened a total of 600 people; of those, 25 percent had high blood pressure readings, and 51 percent of that group was linked to primary care. The team's key lessons for future programs include: going where the people are, recognizing that some people will not want care if they do not feel sick or experience symptoms, and recognizing the essential role of CHWs in engaging with the community, establishing trust, providing education, and linking people to care. To improve program effectiveness, the team wants to understand why 49 percent of individuals with high blood pressure readings did not want to get referred. The team plans to use Preventive Health and Health Services Block Grant funding to expand the program to other communities.

Texas: Year 3

The Texas team launched four sites for self-measured blood pressure monitoring: three at local health departments and one at a regional health department. Participants received a blood pressure monitor, education on its use and maintenance, and referral to both the diabetes and hypertension programs at the Texas Health and Human Services. In year two of the program, the team expanded to work with the University of Texas Health Science Center in Tyler, Texas. The team focused on identifying and supporting patients with uncontrolled high blood pressure. They engaged a total of 228 participants, resulting in an average blood pressure decrease of 12 points systolic and 7 points diastolic. Key successes of the program include developing important partnerships with the American Heart Association, community health plans, local health departments, and the state pharmacy association; creating, resources for patients on hypertension prevention and treatment; and establishing blood

pressure monitoring "lending libraries" in both clinical and community settings (i.e., public libraries and local housing authorities). However, although the program was effective, data collection and tracking have proved to be very time- and labor-intensive.

Virginia: Year 2 and Year 5 Payers

In two communities, the Virginia Department of Health worked with CHWs to identify patients with elevated blood pressure and provide follow-up support for self-monitoring. The team aimed to reduce healthcare costs for individuals and payers. Although the health department made a concerted effort to understand the role of structural determinants of health and the impact of historical discrimination on hypertension rates, the team found it important for third party payers to also understand the history and background of the communities they insured. The team felt that understanding the community better and taking services to homes or other convenient locations could help the program team "meet people where they are."

In the team's clinic model, medication adherence increased 25.8 percent and primary care visits increased 25.7 percent. The team noted that relationship-building and trust are critical for CHWs to improve patient/resident health outcomes. At the end of the project, the team reported that its primary care partner is spreading the clinic model to all clinic locations (encompassing 100,000 patients). Additionally, the home visit model has expanded to seven public housing resource centers.

U.S. Virgin Islands St. Thomas East End Medical Center: Years 4 and 5 Familial Support

The U.S. Virgin Islands St. Thomas East End Medical Center (STEEMC) secured grants for a case manager, blood pressure cuffs, and medicine bags, and enrolled 300 patients in a hypertension clinic with an average control of 43 percent (up from 40 percent). Going forward, STEEMC aims to hire additional providers and add a case manager and CHW to do "deep dives" on the chronically uncontrolled patients, enhance the skill and confidence level of the existing ancillary staff, begin referring patients to a psychologist for evaluation, and identify a way to conduct group visits.

U.S. Virgin Islands Department of Health: Years 4 and 5

The U.S. Virgin Islands Department of Health aimed to decrease by 10 percent the number of patients with uncontrolled hypertension, decrease by 10 percent the incidence of hidden hypertension, and improve by 10 percent medication adherence among patients 18 and older through increased/improved screening, diagnosis, treatment, communication, and referral protocols. At the end of the learning collaborative, eight patients had been referred to a community health clinic and hospitals referred 30 patients to Federally-Qualified Health Centers (FQHCs). In addition, the team had created hypertension protocols for local clinics.

The team's lessons learned included:

- The need for a disaster preparedness plan for chronic disease management (two Category 5 hurricanes occurred during the team's participation in the collaborative).
- The need to increase communication with stakeholders (to include doctors, nurses, case managers, and other staff responsible for implementing the initiative) to expand commitment and buy-in.
- The importance of raising community awareness (e.g., through media and print sources).
- The need to collaborate with other programs addressing comorbidities of cardiovascular disease and with clinical partners to leverage resources.

In the future, the department plans to revisit and revise its aim statement, collect baseline data on hypertension, reengage hospitals and FQHCs into its program, and contract patient navigators to facilitate the referral and follow-up process.

Guam: Years 4 and 5

Since May 2018, 14 people who are either uninsured or underinsured have come into the Guam team's hypertension reduction program. These individuals are seen in the clinic, are then referred to community-based services, and finally return to the clinic for a second visit to check on compliance and progress. The team's lessons learned include:

- Referral programs were not effective.
- Transportation is a barrier to accessing care.
- Patients prefer an all-in-one education facility rather than needing to visit multiple community partners in different locations.
- The majority of providers do not have fully functional or integrated EHR systems.
- Funding is needed to help those who cannot afford medications.

Moving forward, the health department aims to secure buy-in from additional health providers, share successes with stakeholders, seek additional funding, and increase the number of participating community partners and lifestyle change resources.

Choctaw Nation and Oklahoma: Years 4 and 5 State and Tribal Partnership

By July 2018, the Choctaw Nation and Oklahoma State Department of Health team aimed to improve the number of patients with controlled hypertension by 10 percent among patients at a local clinic. The team aimed to do this through collaborative, team-based care strategies to inform a replicable, scalable model for hypertension control. During this initiative, a patient either identified by a provider or via county screening was assessed for hypertension by a Choctaw Nation provider and then referred to a pharmacy for a treatment plan and subsequent blood pressure and medication monitoring, as appropriate. Clinic visits involved:

- Assessment of patient understanding of hypertension (with the use of a CDC video on high blood pressure basics).
- Assessment for risk factors (including screening for alcohol and tobacco use)
- Counseling regarding diet, exercise, and physical activity.
- Consultation regarding medication and management, hypertension risk factors, home blood pressure monitoring, a treatment plan, and monitoring schedule.
- Any appropriate referrals to a nutritionist or wellness center. Resources included support for following the DASH (Dietary Approaches to Stop Hypertension) eating plan.

As of July 2018, the initiative reports a total of 66 referrals out of 155 clinic visits (22 telephonic). Some patients discontinued either by no-show or by indicating lack of interest.

Eastern Aleutian Tribes and Alaska: Years 4 and 5 State and Tribal Partnership

The Eastern Aleutian Tribes and Alaska team initiative trained all clinic staff members at King Cove to take blood pressures, added blood pressure monitors to some clinic waiting rooms, purchased a learning management system and loaded information for tracking and providing training, and mapped patient flow in each clinic. The initiative also resulted in clinic-specific data for all eight clinics that participate in the Eastern Aleutian Tribes system and led to a partnership with the Alaska Native Tribal Health Consortium to create EHR reports. As part of its work with the learning collaborative, the core

implementation team:

- Identified and developed measures and goals for the Eastern Aleutian Tribes system and individual clinics.
- Created, delivered and evaluated team-based care, patient-centered medical home, and quality improvement training for all Eastern Aleutian Tribes clinics.
- Developed onsite, virtual, and CHW apprentice trainings.
- Enhanced coordination among staff.
- Used clinic-specific data to show progress.
- Developed a hypertension algorithm.
- Researched options for improving access to medications.

The team's lessons learned included the fact that the federal 340B program is not a viable option for many FQHCs. In addition, because most antihypertensive medications are available with 90-day refills and home blood pressure monitors are covered via Medicaid, a viable mechanism for paying or reimbursing CHWs is needed.

The core implementation team seeks funding to purchase blood pressure monitors for community locations, aims to add registries in five remaining clinics, is completing final versions of new and chronic hypertension protocols, will expand use of the learning management system, and expects to institutionalize accurate blood pressure measurement training into its ongoing training system.

South Carolina: Year 5 Familial Support

The South Carolina Department of Health and Environmental Control partnered with HopeHealth to offer a health education program to patients and their family members. Patients for the program were identified at WISEWOMAN clinics via hypertension screening during the project period. People with results indicating pre-hypertension and hypertension were referred to the program. A total of 107 patients went through the six-week health education program, with 96 percent achieving a lower BMI and 27 percent achieving blood pressure control. Going forward, the state health department has prioritized expanding the program to the broader community.

Florida: Year 5 Payers

Florida Department of Health and Florida's Medicaid payer collaborated to help patients understand the importance of taking their medications and refilling them on time. At the payer plan level, outcomes included reductions in emergency room visits (by 19 %) and costs (by 9 %), along with an increased prescriptions for people with hypertension (by 9 %). However, the health department noted that adherence barriers remained unrecognized or unaddressed by partners despite the community connector intervention, and that patients who struggled to control their hypertension frequently reported adherence barriers. The most common barriers included forgetfulness, running out of refills, and medication side effects, followed by patient concerns that the medication did not help or that they did not need it. (Medication cost did not prove not a significant barrier because participants were enrolled in Medicaid, which covered the cost of most prescription medications.)

Nevada: Year 5 Payers

The Nevada Department of Health and Human Services and its three Medicaid payer partners (SilverSummit, Amerigroup, and Hometown Health/Renown) reached out to members and enrolled them in the program. Through a qualitative analysis via a university partner, the health department was

able to demonstrate CHWs' ability to create change in an impactful way for the state. The CHWs reported benefits, included better-controlled blood pressure, and referral to home health visits and to primary care providers. Overall, the team felt that the initiative created a unique collaboration with payers. However, the project team noted insufficient time to hire the needed number of CHWs.

Utah: Year 5 Payers and Familial Support

Payers Team

Through its participation in the payers cohort within the ASTHO-CDC Heart Disease and Stroke Prevention Learning Collaborative, Utah learned that how the team framed the pilot initiatives made a difference in how interested individuals were to participate. For example, pharmacists learned that framing participation as taking advantage of a service, rather than enrolling people in a formal program, increased interest among targeted individuals.

Through this initiative, the Utah team contacted 168 patients. Of those, 27 individuals were engaged, 10 successfully their controlled blood pressure, and nine successfully reduced their blood pressure. Barriers to success included health department staffing turnover, difficulty of performing outreach, the short timeline, and procurement issues. In addition, a slow start shortened the project length and may have affected patient outcomes.

The payers core implementation team noted that it takes significant time to build trust-based relationships with both community partners and patients. The project design underestimated patient hesitation since, due to cultural factors, many Utah residents do not respond well to letters from the government or insurers. The most successful outreach strategy relied on pharmacists who already had relationships with patients. As a result, the team noted that pharmacy partners should be utilized more fully going forward, and that there is ample opportunity to better use this resource to achieve positive patient outcomes.

Familial Support Team

The familial support core implementation team enjoyed success in getting partners the resources they needed and helping partners to learn from one another. Fifty-two percent of participants significantly reduced their diastolic blood pressure, and many participants reported that the support person they enrolled with helped them significantly with compliance. At the clinic level, participants reported that they found health coaching helpful.

Wisconsin: Year 5 Payers

The Wisconsin team focused on high-risk and/or underserved populations, which were identified as individuals who were non-adherent to their hypertension medication. To improve outcomes among these individuals, the Wisconsin team connected clinical care professionals to community-based resources to support care coordination and test payment models and mechanisms in Milwaukee, Kenosha Counties, and rural Sauk County. Specific patients were identified, then referred through the Pathways Community HUB model to receive in-home assessments from CHWs and/or receive medication therapy management services (inclusive of medication review and assessment) from community-based pharmacists with a focus on blood pressure self-management.

Commonwealth of the Northern Mariana Islands: Years 4 and 5

CNMI screened 860 individuals, which identified 410 people as having hypertension. Of these 410 individuals, 308 were unaware of their high blood pressure and did not have hypertension medication. Of this group, 77 individuals were referred to a community health center. A total of eight (10%) showed

up to their appointments. Reasons for refusing the referral included: a desire to change habits on one's own, feeling skeptical of or indifferent to the need to change, and schedule constraints.

The CNMI team stressed the need to pick the core implementation team wisely. Their initiative benefited from relying on a small team to carry-out day to day activities, while continuing to communicate across sectors and increasing dialogue around establishing systems of care. Partnerships with public health programs, pharmacies, FQHCs, and the Northern Marianas College nursing department have started to close the gap between community health screenings and clinic appointments.

According to the CNMI team, meeting community members where they are is an important part of community engagement. The CNMI team initially decided to target three different communities: the Filipino community, the Chamorro community, and individuals from the Federated States of Micronesia. Given the limited timeframe and person power, however, the team decided to focus on the community with the highest prevalence of hypertension (Filipinos) rather than attempting to reach all population groups.

The sustainability plan for the project relies on the Blood Pressure Toolkit, a protocol for referring hypertensive patients with resources for the uninsured. The toolkit is available to partners and public health programs.

Where We've Been: ASTHO's Evaluation Report
Presenters: Emily Peterman, senior analyst, program evaluation, ASTHO; and Karl Ensign, chief of performance improvement, research and evaluation, ASTHO

During this presentation, members of ASTHO's Research and Evaluation team described ASTHO's approach to evaluating the learning collaborative effort and engaged participants in conversation about what would be helpful to measure as the jurisdiction teams' work continues.

Overview of the Evaluation Process
The above listed ASTHO staff introduced the project logic model, a roadmap to controlling blood pressure through various inputs, substantive activities, outputs and outcomes, and rapid cycles of planning, doing, studying, and acting. They then described the multi-phased tool for collecting data and the methodology for coding and analyzing collected data.

High-Level Evaluation Findings
The presenters noted that over the five-year project period, the collaborative engaged 31 jurisdictions that together have collaborated with at least 480 partners, developed more than 215 protocols (for data exchange, client referral, or follow-up), and created 106 community and clinical linkages—new protocols, trainings, and data-sharing opportunities via partnerships with local health departments, hospitals and health systems, and/or payers. This work is in addition to the multiple opportunities for data-sharing and analysis, improved team-based care, and development of new payer reimbursement policies (via partnerships with Medicaid and/or pharmacies) that resulted from the learning collaborative.

The learning collaborative supported the identification of more than 70,000 individuals with hypertension. Within the project periods, more than 20,000 individuals were referred to services and at least 4,098 individuals reduced their blood pressure. (The presenters reminded meeting participants to

understand project impact in the context of the pilot populations of the defined interventions rather than of the general population.)

Ideas for Future Evaluation Efforts and Services
According to the presenters, the ability to document positive change informs a communication to convey a valuable data-driven story of systems changes impacting population health outcomes. Participants suggested a range of possible priorities for measuring progress for future jurisdiction-specific projects. Suggestions follow below in rough order of frequency and emphasis of mention.

- Understanding return on investment (ROI) and knowing how to present it to payers, recognizing that different payers may define their own ROI interests in different ways (e.g., via avoidance of adverse health outcomes like emergency room visits).
- Determining the project's impact on social determinants of health, since focusing on these could improve underlying health conditions while also improving access to care, follow-up, and compliance.
- Determining the impact of investment on physician burden.
- Lowering hemoglobin a1c, which could be a more significant heart health indicator than just focusing on blood pressure levels.
- Determining indicators of follow-up and attention of care.
- Establishing process evaluation, focusing on understanding and eliminating barriers (e.g., quality improvement assessment with EHR).
- Developing cost assessments, especially for data regarding specific cost variables.
- Assessing provider satisfaction (e.g., through surveys asking physicians and nurses whether CHWs helped them do their jobs better).
- Assessing patient satisfaction.
- Tracking patients to understand if interventions stick and whether or not the positive control outcomes can be sustained.

Developing Data Systems to Drive Action and Improve Health Outcomes
Presenters: Brad Batallones, Commonwealth Healthcare Corporation (CHCC) Hypertension Identification and Control Project (HIC) data lead and tobacco prevention and control program coordinator, CNMI; Abigail Dimaano, CHCC HIC project intern, CNMI; and Halina Palacios, CHCC HIC project lead and corporate quality and performance improvement manager, CNMI

The CNMI team shared perspectives and experiences regarding approaches to drive positive outcomes by utilizing and improving data systems. Team members described CNMI's recent experience with collecting data while implementing a blood pressure screening program that included an interview phase, clinic visits, and an exercise program.

The team noted that determining which data to collect must flow from identifying clear project goals. CHCC collected standardized information about participants (name, date of birth, ethnicity, sex, primary care provider, insurance, and contact information), as well as outreach data (screening location and date, blood pressure, referring party, patient awareness of hypertension, and any hypertension medication used).

The team considered three different methods of collecting data. To start, they agreed that printed forms were a wasteful duplication of efforts, since data still must be entered into computer files. Therefore,

they entered data directly into Excel spreadsheets with help from nursing students. However, they found it easy to make mistakes and delete data accidentally, so this approach relied on screeners to know the software and enter information very carefully and accurately. As a result, the team strongly preferred using a Microsoft Access database as the most efficient and easily adaptable approach to collecting patient data. It allowed the team to create a customized form that kept data consistent and allowed separation of information. Queries could connect data from multiple tables and pull data from a specified timeframe. As a result, those entering data did not need to have extensive knowledge of Microsoft Access—just those creating the database and analyzing data.

Since CNMI does not have an integrated EHR structure, using Microsoft Access helped achieve more consistent data, improving data collection and better engaging people with hypertension. CHCC created helpful infographics using the free platform Piktochart.com. The full team reviewed data monthly, finding that regular interaction with data resulted in improvements to the plan. One such change came from noticing the low number of referrals. The team decided to shift to screening fewer people but with higher quality interaction, and the percentage of people referred rose dramatically as they shifted the project focus from quantity to quality of interactions.

Adaptive Leadership
Presenter: Tanisa Foxworth Adimu, assistant project director, Georgia Health Policy Center

This presentation focused on how leaders can adapt and adjust their programs alongside funding and leadership changes. According to the presenter, adaptive leadership involves:

- Living with unpredictability and exploiting emerging opportunities.
- A continual process of challenge, adaptation, and learning ("no mistakes, just lessons").
- A combination of skills, perspective, and guided effort.

The presenter noted that effective leaders must differentiate between technical challenges (for which a ready-made solution and standard operating procedures exist) and adaptive challenges (those requiring creativity and collaboration to solve a complex problem). Principles of adaptive leadership include gaining a broader view of the challenge and its context, identifying the adaptive challenge, regulating distress (ensuring manageable levels of stress and frustration), maintaining disciplined attention, supporting rather than controlling team members, and allowing leadership and innovation to emerge from below.

Examples of adaptive actions include taking steps to influence decisions (e.g., employing creative ways to convey the value of an investment or decision, rather than relying on numbers to ensure decisionmakers understand the data's message), educating others, planning strategically in the face of uncertainty, staying abreast of emerging information, creating new partnerships (e.g., creating maps of those actors with shared values and those with opposing values), and building capacity where needed.

Breakouts: Expanding Systems Change and Analyzing Systems Change Approaches
During this time, participants engaged in two sequential breakout sessions: the first organized by role and the second by jurisdiction. First, participants talked with their professional counterparts in other jurisdictions about key takeaways from the meeting, and opportunities to expand systems change going forward from the vantage point of their essential roles and unique responsibilities. Next, participants met with their jurisdiction teams to discuss applying new resources and skills within their domains of operation and talk about what additional steps and essential partnerships could expand systems

changes to equitably improve community health outcomes. For breakout session guides, see Appendix C.)

According to session participants, areas of action needing concerted, coordinated attention in jurisdiction hypertension programs include:

- Developing preparedness plans for managing chronic disease prevention and treatment in times of natural disaster.
- Improving patient access to transportation.
- Reducing the complexity of referral systems, which can be confusing patients or others to navigate.
- Increasing EHR functionality.
- Building buy-in from medical providers.
- Identifying effective ways to follow-up with patients between visits, such as texts, calls, and provider reminders.
- Improving medication adherence and/or compliance among patients with hypertension.

Topics of comparatively less concern based on their infrequency of discussion include recruiting and enrolling patients and enlisting needed partners.

In the plenary discussion following the back-to-back breakout sessions, participants offered the following takeaways:

- Building relationships is important to accomplishing a specific goal. Serving as an effective convener, helping people to learn together, can require a willingness to expand project goals if needed partners have different objectives.
- Next steps should include looking at who else is needed, who is not at the table, which health systems can be engaged, and how organizations can meet the community members where they are. A key organization unwilling to participate two years ago could be ready now, so it is important to make this a reiterative process.
- This work can be enhanced or furthered through additional funding. Further, the outcomes, evaluation, and results of this work can be used in future grant opportunities to showcase how this work can lead to improved health outcomes and other successes.
- Communication should happen from a place of shared values, even if partners are not aligned on every substantive detail or objective.
- Language is important in establishing shared values and identifying who is involved in the project. As an example, the word “community” can have different meaning to different stakeholders (i.e., payers, public health, clinical personnel).
- Interns and CHWs can help expand capacity for interventions. CHWs help in understanding the challenges and needs of individual patients. In addition, they may be able to literally meet community members/patients where they are, such as their workplaces or homes. CHWs can capture a snapshot of a patient or community member’s life that extends further than their normal clinic visit, seeing and addressing how social determinants of health affect the management of hypertension and other chronic diseases.
- Interventions must meet people where they are in terms of readiness for change and physically in community spaces (e.g., grocery stores, in-home, community events). Storytelling and listening are valuable ways to support partners and understand patients.

- Intervention promotion and evaluation need to highlight both the health case and the business case for stakeholder groups.
- Frequent calls with patients to check in can be especially effective to maintain adherence to recommended hypertension reduction protocols.

ASTHO Technical Assistance and Resources

Presenters: Emily Moore, director, clinical to community connections, ASTHO; Emily Peterman, senior analyst, program evaluation, ASTHO; and Marcus Plescia, Chief Medical Officer, ASTHO

During this presentation, ASTHO staff shared information about other resources available and relevant activities underway at ASTHO, specifically regarding performance improvement research and evaluation, population health improvement, and Project ECHO.

ASTHO's Performance Improvement, Research, and Evaluation (PIRE) team aims to strengthen public health infrastructure by conducting research and evaluation to inform and support data-driven decision making. The team provides technical assistance and supports networking between peers to build capacity and aims to help communicate the impact and value of public health. The team's routine data collection efforts include emergent issue surveys, key informant interviews, focus group discussions, and ROI analysis.

ASTHO's focus on population health strategies involves a commitment to creating clinical to community connections, strengthening workforce capacity, supporting innovative care delivery models, and improving population health. This work builds alliances between public health and key partners (e.g., healthcare, human services, and payers), fosters integrated and coordinated care delivery, and builds toward outcomes-based financing that aligns financial incentive with population need. ASTHO is a partner of CDC's 6|18 initiative (helping with pilot tests in several states), is working on accountable health communities in 31 communities across 28 grants, and is partnering with CDC's Health Impacts in 5 Years initiative.

Project ECHO is a lifelong learning and guided practice model intended to revolutionize medical education and substantially increase specialty care workforce capacity by means of hub-and-spoke knowledge sharing networks. This initiative began in New Mexico with a focus on hepatitis and now aims to expand to other states and conditions, especially in cases where key partners are remote to one another. The model relies on using technology (e.g., regular videoconferencing) to leverage scarce resources, sharing best practices to reduce disparity, case-based learning to navigate complexity, and maintaining a web-based database to monitor outcomes.

Where We Are Going and Program Sustainability

During this session, participants discussed the trajectories of their own jurisdictions' projects going forward and considered opportunities to apply this initiative's model to other health issues.

Public health participants shared the following intentions:

- Making more and strategic use of community connectors, CHWs, and patient navigators.
- Planning communication strategically to align goals of partner organizations, in part to help secure additional resources and use resources creatively.

- Conducting a close-out meeting to communicate outcomes (including ROI) to partner leadership.
- Considering the feasibility of applying this model of collaboration to other issues, such as high cholesterol and diabetes.

Payer representatives indicated an interest in developing similar partnerships in other states and in growing the current collaboration from a single jurisdiction to encompass an entire region of the country. Payers encouraged other stakeholders to include providers as important partners in many of the interventions now underway.

Discussion suggested that public health can best engage private sector partners by articulating the financial benefits—including ROI—of a given intervention. Helpful resources for doing so include guidance on the Kaiser Family Foundation and Robert Wood Johnson Foundation websites regarding the needs of payers (including CMS).

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Appendix A: Participant List

Representatives of Jurisdiction Teams In order of year of participation and presentation during the rapid project presentations.		
James	Dixon	Mobile County Health Department
Joe	Purvis	Mobile County Health Department
Debra	Hodges	Alabama Department of Public Health
Stacy	Webb	Arkansas Department of Health
Belinda	Stillwell	Arkansas Department of Health
Kevin	Cluskey	Humana (Arkansas)
Sarah	Adolph	Arkansas Department of Health
Mitzi	Cardona	American Heart Association—West Michigan
Kristina	Dawkins	Michigan Department of Health and Human Services
Karen	Fuller	Michigan Department of Health and Human Services
Patti	Kritzberger	Quality Health Associates of North Dakota
Kelly	Nagel	North Dakota Department of Health
Nicole	Peske	North Dakota Department of Health
Renzo	Amaya	Colorado Department of Public Health and Environment
Ashley	Hatfield	Colorado Department of Public Health and Environment
Sarony	Young	Colorado Department of Public Health and Environment
Monica	Jensen	Connecticut Department of Public Health
Carleigh	Baudoin	Texas Department of State Health Services
Nancy	Eichner	Texas Department of State Health Services
Jessica	Hyde	Texas Department of State Health Services
Keandra	Holloway	Richmond City Health District
Amy	Popovich	Richmond City Health District
Patrick	Wiggins	Virginia Department of Health
Kathleen	Renè-Grant	U.S. Virgin Islands Department of Health
Kathleen	Arnold-Lewis	U.S. Virgin Islands Department of Health
Lyna	Fredericks	U.S. Virgin Islands Department of Health
Barbara	Douglas	St. Thomas East End Medical Center
Gretna	Jones	St. Thomas East End Medical Center
Debra	Wright-Francis	St. Thomas East End Medical Center

Rapid Project Presentations (1 p.m.) In order of year of participation and presentation during the rapid project presentations.		
Bradwell	Batallones	Commonwealth Healthcare Corporation
Abigail	Dimaano	Commonwealth Healthcare Corporation
Halina	Palacios	Commonwealth Healthcare Corporation
Melliza	Young	Guam Regional Medical City
Kelley Marie	Barnhart	Health Partners LLC (Guam)
Elizabeth	Guerrero	Guam Department of Public Health and Social Services
Susan	Bailey	Eastern Aleutian Tribes
Danita	Koehler	Eastern Aleutian Tribes
Janice	Gray	Alaska Division of Public Health
Latricia	Morgan	Oklahoma State Department of Health
Jacqueline	Travers	The University of Oklahoma College of Pharmacy
Justin	Wilcox	Choctaw Nation Health Services Authority
Rhonda	Altman	HopeHealth (South Carolina)
Yvonne	VanCamp	HopeHealth (South Carolina)
Linda	Pekuri	South Carolina Department of Health and Environmental Control
Jeffrey	King	Molina Healthcare
Elaine	Alvarez	Molina Healthcare
Desiree	Jonas	Florida Department of Health
Richard	Segal	University of Florida College of Pharmacy
Masako	Horino Berger	Nevada Department of Health and Human Services
Nicole	Bissonette	Utah Department of Health
Janet	Norman	Utah Community Pharmacy Enhanced Services Network
Ashley	Rush	Utah Department of Health
Kalynn	Filion	Utah Department of Health
Anna	Testa	Utah Department of Health
Stephanie	Wilkinson	Utah Department of Health
Rebecca	Cohen	Wisconsin Department of Health Services
Mary	Pesik	Wisconsin Department of Health Services
Shelby	Vadjunec	Wisconsin Department of Health Services

Other Meeting Attendees and Partners		
Rose Anne	Felipe	Association of State and Territorial Health Officials
Kelsey	Donnellan	Association of State and Territorial Health Officials
Allen	Rakotoniaina	Association of State and Territorial Health Officials
Karl	Ensign	Association of State and Territorial Health Officials
Talyah	Sands	Association of State and Territorial Health Officials
Marcus	Plescia	Association of State and Territorial Health Officials
Emily	Moore	Association of State and Territorial Health Officials
Emily	Peterman	Association of State and Territorial Health Officials
Kaha	Ahmed	Centers for Disease Control and Prevention
Camillia	Easley	Centers for Disease Control and Prevention
Letitia	Presley-Cantrell	Centers for Disease Control and Prevention
Rebekah	Buckley	Centers for Disease Control and Prevention
Kayanna	Scott	Centers for Disease Control and Prevention
Ventina	Preston	Centers for Disease Control and Prevention
Tanisa	Foxworth Adimu	Georgia Health Policy Center
Lorez	Meinhold	Keystone Policy Center
Brad	Sperber	Keystone Policy Center
Robert	Foley	National Indian Health Board
Lisa	Nelson	See in Colors

Appendix B: Agenda

ASTHO-CDC Heart Disease and Stroke Prevention Culminating Meeting Overview

Purpose: To identify and highlight the successes and challenges within the systems-level approaches that states are innovatively using to prevent, detect, and treat hypertension. This meeting aims to:

- Convene staff from 19 of 26 invited jurisdictions who participated in the ASTHO-CDC Heart Disease and Stroke Prevention Learning Collaborative from Year 1 to Year 5.
- Share and document/record project updates, successes, and future directions for each jurisdiction.
- Identify opportunities for technical assistance and capacity-building assistance for each jurisdiction.

Objectives
This meeting aims to:

- Enable all jurisdictional participants, ASTHO staff, and CDC staff to identify skills and resources needed to continue transforming public health's work.
- Promote collaboration across sectors to be more coordinated and meaningful to prevent, detect, and treat hypertension and other chronic diseases.
- Foster collaboration between ASTHO, CDC, states, territories, freely-associated states, and tribal leaders to address heart disease and stroke prevention.

ASTHO-CDC Heart Disease and Stroke Prevention Culminating Meeting Agenda

July 30, 2018	Day 1
8:30 a.m.	**Breakfast and Welcome** Association of State and Territorial Health Officials (ASTHO) Centers for Disease Control and Prevention (CDC)
9:30 a.m.	**Overview of Agenda and Objectives** Talyah Sands, director of health improvement, ASTHO
9:45 a.m.	**Plenary – Systems Change for Improved Health Outcomes** *Focus on quality improvement and how this project prompted changes to processes and procedures to improve health outcomes among people with hypertension.* Letitia Presley-Cantrell, chief of the Program Development and Services Branch of CDC's Division for Heart Disease and Stroke Prevention
10:15 a.m.	**Rapid Project Presentations** Nine jurisdictions will present, in order: Alabama, Arkansas (Payers), Arkansas (Familial Support), Michigan, North Dakota, Colorado, Connecticut, Texas, Virginia, U.S. Virgin Islands Department of Health, and U.S. Virgin Islands St. Thomas East End Medical Center Corporation
12 p.m.	**Networking Lunch** *Learn from your peers how they explain their work to their family and friends and what part of their morning routine they couldn't give up.*
1 p.m.	**Rapid Project Presentations (continued)** Nine jurisdictions will present, in order: Commonwealth of the Northern Mariana Islands, Guam, Alaska (Eastern Aleutian Tribes), Oklahoma (Choctaw Nation), South Carolina, Florida, Nevada, Utah (Payers), Utah (Familial Support), and Wisconsin
2:30 p.m.	**Where We've Been: ASTHO's Evaluation Report** *This presentation will focus on how the data and projects evolved over time, including workflows, Tools for Change, and program reach from Year 1 through Year 5.* Karl Ensign, chief, Performance Improvement, Research, and Evaluation, ASTHO, and Emily Peterman, senior analyst, Research and Evaluation, ASTHO
3:15 p.m.	**Adjourn**

Visit the CDC Museum or network before the shuttle arrives at 4 p.m.

ASTHO-CDC Heart Disease and Stroke Prevention Culminating Meeting Agenda

July 31, 2018	Day 2
8:30 a.m.	**Breakfast Showcase** *Jurisdiction teams will share and disseminate materials and resources they have developed as part of their project with other jurisdictions and partners.*
9:30 a.m.	**Spotlight – Developing Data Systems to Drive Action and Improve Health Outcomes** *Hear how creating a Microsoft Access database improved data collection and engagement with people with hypertension.* Bradwell Batallones, program coordinator, Division of Public Health, Commonwealth Healthcare Corporation
10 a.m.	**Plenary – Adaptive Leadership** *Focus on how leaders can adapt and adjust their programs alongside funding changes and leadership changes.* Tanisa Foxworth Adimu, assistant project director, Georgia Health Policy Center
11 a.m.	**Breakout – Expanding Systems Change** *Peer groups will discuss how they use story-telling to create buy-in with leadership and partners.*
12 p.m.	**Working Lunch – Analyzing Systems Change Approaches** *Jurisdictional teams to focus on how they can leverage lessons learned and winning strategies from peers.*
1 p.m.	**Team Report Outs**
1:30 p.m.	**ASTHO Technical Assistance and Resources** *Learn about other opportunities at ASTHO through the Center for Population Health Strategies; the Performance Improvement, Research, and Evaluation team; and Project ECHO.*
2 p.m.	**Breakout – Where We Are Going and Program Sustainability** *Where do you see your state going broadly? Where else can you apply this model?*
2:30 p.m.	**Adjourn**

Appendix C: Action Plan Guides and Templates

Quick Overview

DAY 1

Breakfast
Illustrator activity

- What is your favorite heart-healthy food?
- What was the last book you read or podcast you listened to?
- What is one word that describes your favorite hobby?

Rapid Presentations
Lisa from See in Colors to create 8.5x11" cardstock time cards

Networking Lunch
Conversation cards on the lunch tables

- What is an exciting way you describe your work to family and friends?
- What is one thing from your morning routine you couldn't give up?
- What is your favorite part of summer?

DAY 2

Breakout Session: Expanding Systems Change
Peer groups will discuss how they use storytelling to create buy-in with leadership and partners.

Working Lunch: Analyzing Systems Change Approaches
Jurisdictional teams will focus on how they can leverage lessons learned and winning strategies from peers.

ASTHO-CDC Heart Disease and Stroke Prevention Learning Collaborative
Culminating Meeting
Breakout Session: Expanding Systems Change

Time: 11 a.m.-12 p.m. (Day 2)

Directions

As a peer group, walk through the series of questions below, which are designed to build upon each other. This session is 60 minutes long, broken up into two sections. Please use the time to learn from each other and share key strategies. The handouts are for your notetaking purposes, so you will **not** need to turn them in. A note taker from the ASTHO team will be with you during this session.

Goal of this Session

The goal of this session is to understand how participants can use the information from day 1 and the morning of day 2 of this meeting to build and/or maintain leadership buy-in for systems-level quality improvement to reduce hypertension. This is intended to create a collaborative space for peers across jurisdictional lines to further explore actions they can take within their jurisdictions and regions.

Part 1: Key Considerations and Reflections (30 minutes)

1. What new tools were you introduced to yesterday and today?
2. What became clear to you yesterday or today?
    - Think about "ah ha" moments, epiphanies, or sessions that clarified resources.
3. What did you learn from the rapid presentations that resonated with you, surprised you, or excited you?
    - Which presentation, resource, or research finding caught your attention?

Part 2: Handout Questions (30 minutes)

4. Think about the community in which you live. What makes your role and responsibilities unique to your team?
5. How do you leverage your unique role to build and/or maintain leadership buy-in for systems-level changes to reduce hypertension?
6. What additional steps can you take to expand and sustain systems changes within the public health system?
7. Which other partners do you need to engage to expand your systems change work?

Handout – Expanding Systems Change

Time: 11 a.m.-12 p.m. (Day 2)

Jurisdictions:

Responses	**List the Resources & Partners Related to the Response**
Think about the community in which you live. What makes your role and responsibilities unique to your team?	
How do you leverage your unique to build and/or maintain leadership buy-in for systems-level changes to reduce hypertension?	
What additional steps can you take to expand and sustain systems changes within the public health system?	
What other partner do you need to engage to expand your systems change work?	

Additional Notes:

ASTHO-CDC Heart Disease and Stroke Prevention Learning Collaborative
Culminating Meeting
Networking Lunch: Analyzing Systems Change Approaches

Time: 12-1 p.m. (Day 2)

Directions

As a jurisdiction, walk through the series of questions on the handout on the following page. The questions are designed to build upon each other. This session is intended to take 30 minutes within the lunch break. Please use the time to learn from each other and share key strategies from the previous session with peers. A final copy from each time should be submitted in person to Rose and Kelsey or emailed to them at rfelipe@astho.org and kdonnellan@astho.org.

Goal of this Session

The goal of this session is to understand how jurisdictional teams can leverage lessons learned and winning strategies from peers. During this session, we encourage teams to share key takeaways and lessons from the breakout session with peer teams. This is intended to create a collaborative space for jurisdictions to plan next steps.

Team Member Names:

Jurisdiction:

Handout: Analyzing Systems Change Approaches

Time: 12-1 p.m.

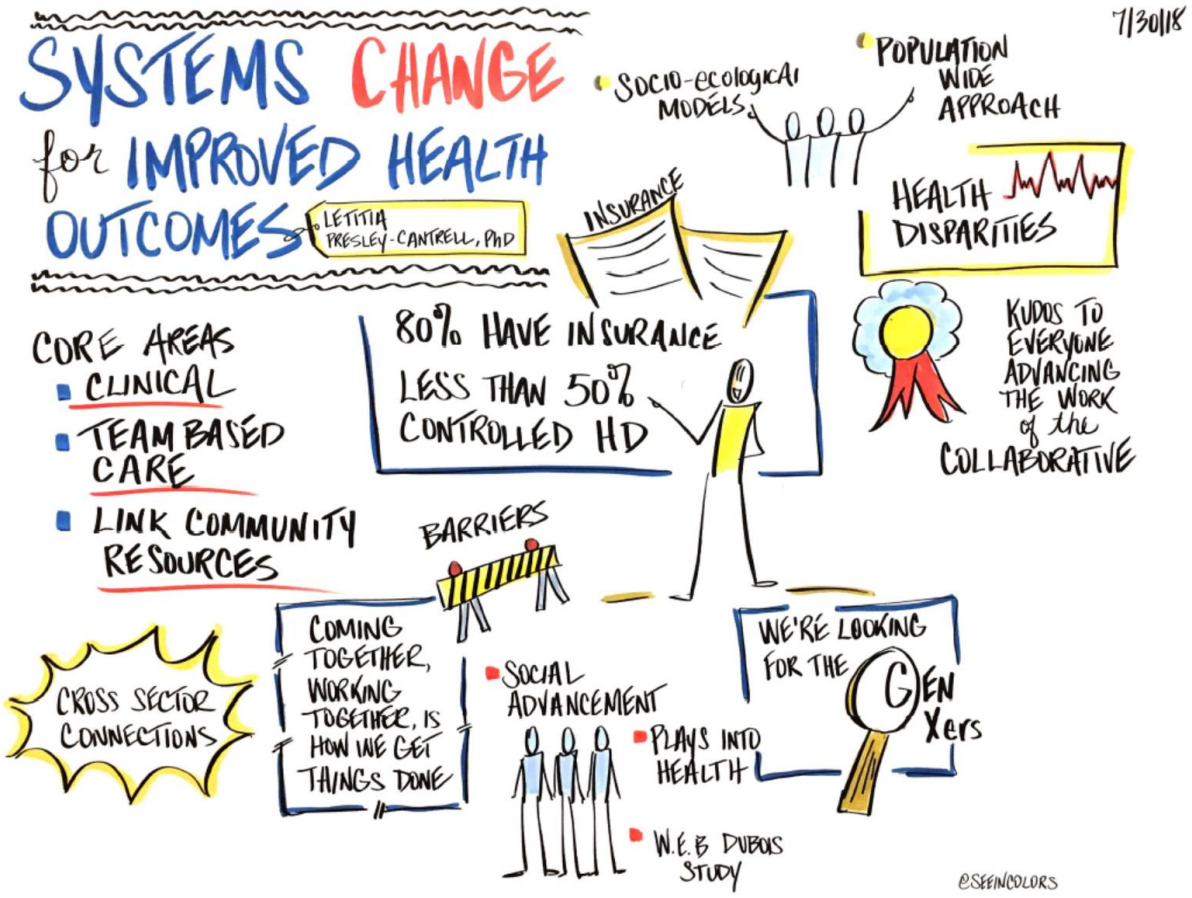
Responses	Next Steps Related to Responses
What did you learn from the previous session that resonated with you, surprised you, or excited you?	
How can these resources and skills from peers be applied to your jurisdiction?	
What additional steps can you take to expand systems changes to equitably improve community health outcomes?	
Which partners do you need to prioritize engaging to expand systems change to improve community health outcomes?	

Additional Notes:

Appendix D: Graphic Recordings

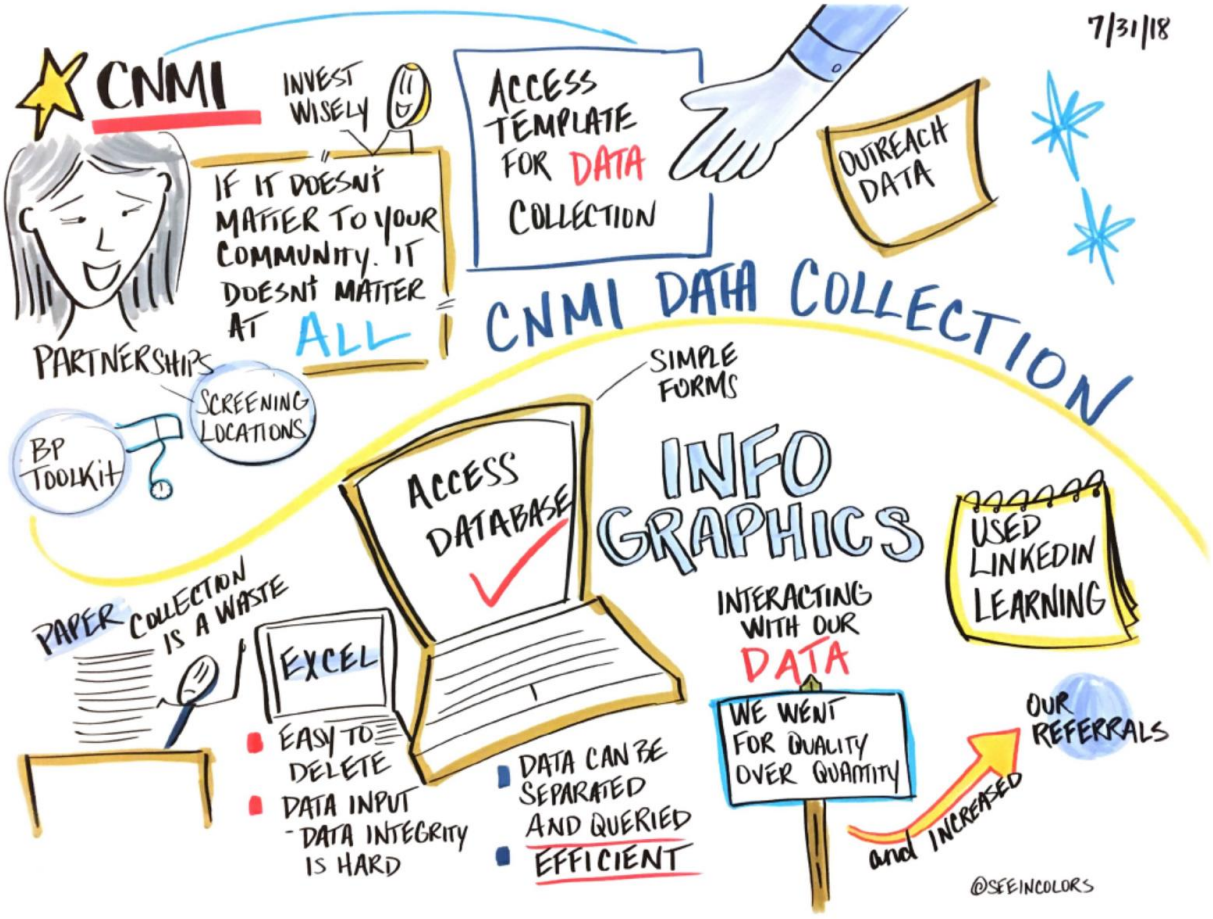
Systems Change for Improved Health Outcomes

Letitia Presley-Cantrell from CDC's Division for Heart Disease and Stroke Prevention opened and set the tone for the meeting during her plenary on systems change. The presentation focused on quality improvement and how these heart disease and stroke prevention projects prompted changes to processes and procedures to improve health outcomes among people with hypertension. Below is a graphic recording of this presentation.



Rapid Project Presentations

On the first day of the meeting, each jurisdictional team delivered a rapid project presentation. In seven minutes, teams were asked to tell the story of their heart disease and stroke prevention project successes and lessons learned. Possible topics to highlight included how they used data to tell their stories, what they accomplished through collaborative efforts, and how the protocols or resources they developed improved hypertension care systems. (Note: The Commonwealth of the Northern Mariana Islands presentation was combined with its data spotlight on the second day due to the team's travel delays.) Below are the graphic recordings from these presentations.

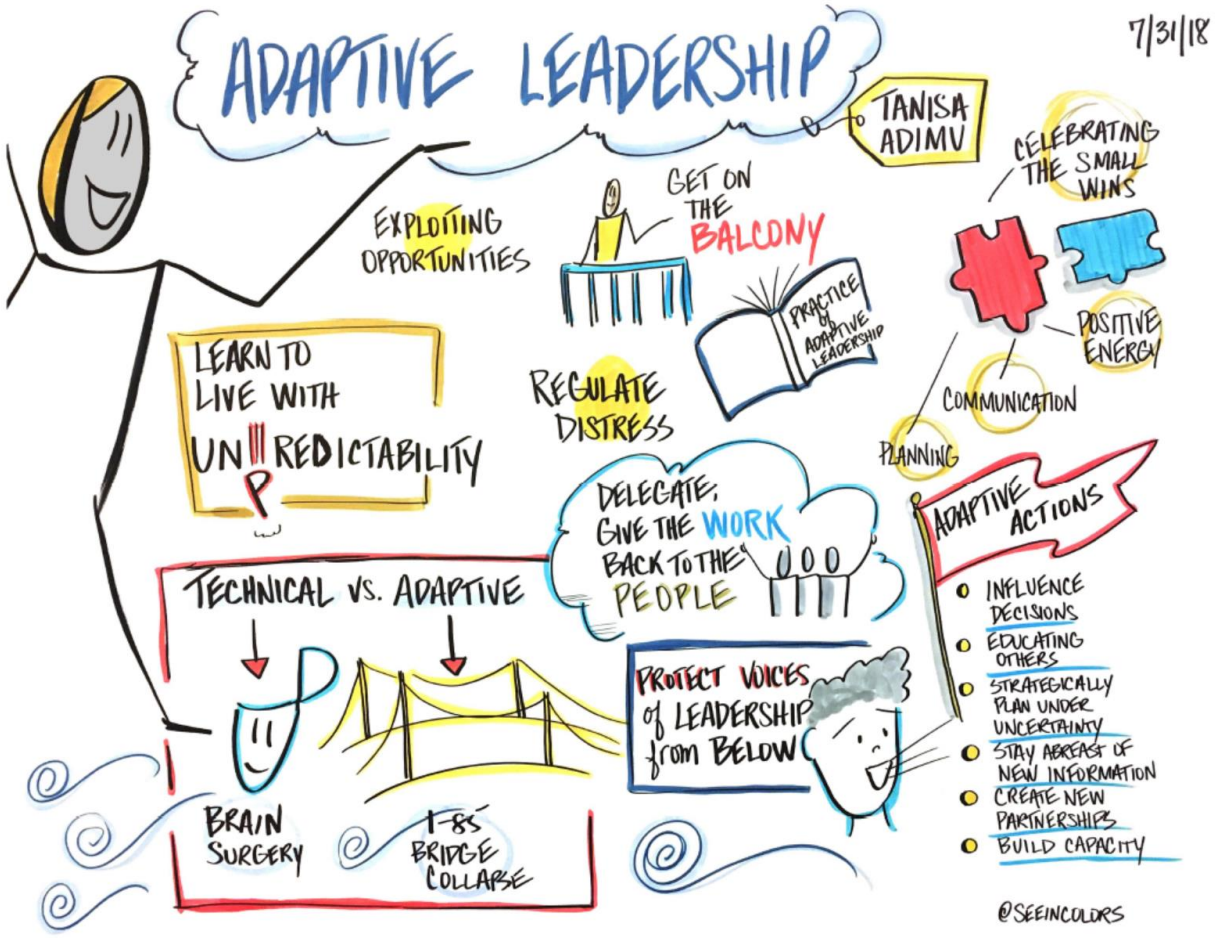

7/31/18
CNMI
INVEST WISELY
IF IT DOESN'T MATTER TO YOUR COMMUNITY. IT DOESN'T MATTER AT ALL
ACCESS TEMPLATE FOR DATA COLLECTION
OUTREACH DATA
CNMI DATA COLLECTION
PARTNERSHIPS
SCREENING LOCATIONS
BP TOOLKIT
SIMPLE FORMS
ACCESS DATABASE
INFO GRAPHICS
USED LINKEDIN LEARNING
PAPER COLLECTION IS A WASTE
EXCEL
EASY TO DELETE
DATA INPUT - DATA INTEGRITY IS HARD
DATA CAN BE SEPARATED AND QUERIED
EFFICIENT
INTERACTING WITH OUR DATA
WE WENT FOR QUALITY OVER QUANTITY
OUR REFERRALS
and INCREASED
@SEEINCOLORS

Where We've Been: ASTHO Evaluation Report

To close the first day, Karl Ensign and Emily Peterman from ASTHO's Performance Improvement, Research and Evaluation team displayed the progress among all 30 learning collaborative jurisdictions. The presentation focused on how the data and projects have evolved over time, and included information regarding workflows, Tools for Change, and program reach from Year 1 through Year 5. Additionally, the team solicited feedback from jurisdictions regarding their learning collaborative successes, needs, and areas of improvement for future activities. Below is a graphic recording of this presentation.

Adaptive Leadership

On the second day of the meeting, Tanisa Foxworth Adimu from the Georgia Health Policy Center spoke about the key tenets of, and framework for, adaptive leadership. Her presentation focused on how leaders can adapt and adjust their programs alongside funding and leadership changes. Below is a graphic recording of this presentation.



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