SOCIALLY DETERMINED

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Like any other field, public health must evolve to continue to be relevant and effective in society. This issue of our special Insights magazine, published during the National Association of Chronic Disease Directors’s 30th anniversary, focuses on the evidence supporting a more engaged role for public health in addressing the “social determinants of health,” or the underlying social and economic causes of health inequities. These inequities bear a particular influence on the burden of chronic diseases, especially since, as emerging science suggests, early adverse childhood experiences may increase later-in-life risks for cancer or diabetes.

There is much to discuss on this topic and how it will affect disease prevention and control. That’s why we’re thrilled to share with you some of the leading voices helping to define the future of our work.

The 20th Surgeon General of the United States, VADM Dr. Jerome Adams, shares how servant leadership can help public health professionals bridge nontraditional partnerships to improve outcomes. NACDD Board President Dr. Gabriel Kaplan presents the case for public health to become more “socially determined.” He suggests we change our mindset about our approach to public health. Dr. Kaplan urges us to be the voice that clearly articulates the relationship between existing social, economic, educational, and health policies and the resulting poor health outcomes that our health system produces. Gov. Mike Leavitt of Leavitt Partners, who was formerly Secretary of Health and Human Services, discusses how data is shaping population health; he proposes that the healthcare system should move from a reactive, fee-for-service structure to one that pays for value. Dr. Ross Brownson, a leader in chronic disease prevention and epidemiology, provides a look at how far chronic disease prevention has come, offering a hopeful look into the future. He advocates for evidence-based capacity building and collaboration with atypical partners, suggesting that many of the gains we can make in health and chronic disease prevention will occur in sectors not directly focused on health.

CDC’s Dr. Robin Ikeda, Deputy Director for Non-Infectious Diseases, and Dana Shelton, Acting Director of the National Center for Chronic Disease Prevention and Health Promotion, share some of the emerging science and innovation around chronic disease, advising how Chronic Disease Units can help promote health equity.

Finally, we’ve included summaries of some of the abstracts that our Members in Chronic Disease Units across the country presented to their peers during our 2019 Chronic Disease Academy. This exemplary and pioneering work on social justice, cross-sector collaboration, healthy community projects, and addressing health inequities is just a small sample of the capabilities and expertise NACDD is helping to develop at the state, tribal, and territorial level. You can read more about the Chronic Disease Competencies we offer in an article by our Professional Development Expert Nancy Sutherland. These competencies are designed to support your professional growth, ultimately helping improve outcomes in chronic disease prevention and control.

As our field and our practice grow and change, the National Association of Chronic Disease Directors will stay true to its Mission when we were founded in 1988: to unite state-based leadership in chronic disease prevention. Perhaps 30 years from now, our work may be very different—the diseases we seek to prevent may change, and the tools we use to promote health may change, advanced beyond our current imagining.

But no matter what the future holds, we plan to share it with our Members, supporting them on their journeys ahead, even as the destinations change.

We hear Members when they ask, “How can we improve not just health, but our society?” And we are determined to help them answer that call to action.

John W. Robitscher, MPH
CEO
National Association of Chronic Disease Directors
What Are the Chronic Disease Competencies, and Why Should I Use Them?

By Nancy Sutherland, Associate Director of Professional Development

Working in the role of a chronic disease practitioner in your state or territory is an honorable career and one of which you should be very proud! Your work affects many lives and improves the overall health of the people in the state or territory you serve. NACDD’s chronic disease competencies are designed to support professional growth for yourself and for your team members. This growth not only helps individuals excel in their careers, it results ultimately in improved outcomes within chronic disease prevention and control programs.

There are three important perspectives regarding the value of using competencies:

From the AGENCY’S PERSPECTIVE, competencies can act as a “checklist” of desired knowledge, skills, and abilities that help the agency advance its mission.

From the MANAGER’S PERSPECTIVE, competencies have a variety of uses. For example, they can be used to:

- Help determine the strengths and weaknesses of the department as a whole.
- Identify professional development goals and opportunities for team members.
- Place the right people into the right roles.
- Find and hire the best candidates for the needs of the department.

From an INDIVIDUAL’S PERSPECTIVE, competencies are an efficient way to help recognize the manager’s expectations and “own” one’s career. For example, they can be used to:

- Determine specific strengths and weaknesses in knowledge and skills.
- Chart appropriate professional development opportunities based on those strengths and weaknesses.
- Create an Individual Development Plan (IDP) on specific next steps to take.
- Guide meaningful career conversations with managers.

The NACDD competencies are comprehensive, with 124 total subcompetencies in seven key areas:

- Build Support
- Design and Evaluate Programs
- Influence Policies and Systems Change
- Lead Strategically
- Manage People
- Manage Programs and Resources
- Use Public Health Science

NACDD has developed a competency assessment tool that allows individuals to assess themselves and managers to assess their team members on current strengths and weaknesses. With the knowledge gained in the assessment, practitioners can consider where they want to go in their career and create an Individual Development Plan (IDP) to identify specific steps that they can take to improve in the competencies that are important to reaching their career goals.

You can find the full list of competencies, the assessment tool, and online tutorials in the Competencies link under Learning Center on the NACDD website, chronicdisease.org.

Whether you are new to your field, in the middle of your career, or a seasoned manager, you can adapt the competencies to your role. Ultimately, where you go with your career is your decision. Using competencies to gain a solid understanding of the knowledge and skills that are important to chronic disease prevention and control professionals can help you reach both your short- and long-term career goals.
Leading with a Servant Heart to Address Upstream Factors

An exclusive interview with the United States Surgeon General, Vice Admiral Jerome M. Adams

Vice Admiral Jerome M. Adams, MD, MPH, is the 20th Surgeon General of the United States. Dr. Adams’ motto as Surgeon General is “better health through better partnerships.” He is committed to strengthening relationships with all members of the health community, and forging new partnerships with members from the business, faith, education, and public safety and national security communities. Dr. Adams is also the former Health Commissioner of Indiana.

NACDD: As the nation’s physician, what is your call to action for state, territorial and tribal Chronic Disease Directors to help people live healthier lives in the next five years? And then the next 10 years?

Dr. Jerome Adams: I got my master’s degree in public health and chronic disease prevention, and in my lifetime, our instruction and what we know about public health really hasn’t changed much in regards to chronic disease prevention and control. I know that’s a provocative statement, but the things that we’re saying now, we’ve been saying for decades: Don’t smoke. Sleep more. Move more. So, we need to think about how we can be more effective communicators in encouraging people to change their behaviors. We know what people should be doing to achieve better health, and people, in most cases, generally know what they should be doing. But public health is not speaking in a way that empowers people to figure out how they can incorporate behavior changes into their lives. We don’t speak in a way that motivates people to prioritize the issues.

As Surgeon General, I’m particularly focused on tobacco. We should be glad that we reduced the number of U.S. adult smokers by 20 million since 1965. But tobacco use is still the single most preventable cause of death and disease in the United States. It claimed my grandfather, who died prematurely of lung cancer. And it also affected me. I had severe asthma growing up, and in many cases my illness was precipitated by secondhand smoke. Now, with e-cigarettes and other vapor products, the conversation I’m having with my own kids about tobacco is different from the days of the Marlboro Man. But we’ve got to make sure we don’t forget that tobacco use is still associated with the leading preventable causes of death and disease in our country.

Chronic Disease Directors have to shift their messaging about tobacco. I was the head of a State Health Department during the transition point when we were debating how much we wanted to lean into discussions about e-cigarettes and vaping versus combustible tobacco. But we now know that tobacco use among youth is rising because of these new delivery mechanisms, and a very real potential exists for them to become a gateway for young people to transition into combustible tobacco.

This is moving so quickly—when the most recent Surgeon General’s Report on e-cigarette use among youth and young adults was created in 2016, JUUL products [a brand of electronic cigarettes] didn’t even exist. So we’ve had to continue to evolve; that’s why we issued a Surgeon General’s Advisory last year to raise awareness about e-cigarette use in young people, and it specifically mentioned JUUL.

Regarding increasing physical activity, this Administration has tasked the U.S. Department of Health and Human Services with developing a national strategy to expand children’s participation in youth sports, to encourage regular physical activity including active playing, and to promote good nutrition for all Americans.

We’re really excited about the new physical activity guidelines we issued recently that empower more folks to get involved, highlighting that you don’t have to block out two hours in your day to work out in a gym. Simply getting up and moving more during little chunks of time can add up.

NACDD: What are some of the societal barriers to reducing chronic disease at the state and territorial level, and what are some opportunities to address those barriers?

Dr. Jerome Adams: That’s a great question that speaks directly to my office’s community health and economic prosperity initiative and report that we’re going to release in 2020.

The fact is, your zip code is more of a social determinant of your health than your genetic code. Where you live determines your access to stable housing, good jobs, healthy foods, healthcare, and even educational advancement. We
know that living in an area that has a lower socioeconomic status increases your risk of developing chronic diseases such as obesity, cardiovascular disease, and type 2 diabetes, regardless of your ancestry.

This is a huge drain on the local workforce and on employers, as well as on healthcare providers and the U.S. healthcare system. Almost one-fifth of every dollar generated in this economy is going to offset healthcare costs, and that’s money that can’t be used to create new jobs, to increase wages, or to pay for other priorities in our society such as safety, security, and education. Through my Community Health and Economic Prosperity (CHEP) initiative and the underlying theme of my tenure of “Better Health Through Better Partnerships,” I’m working on—and I hope others will work on—bringing together faith leaders, civic and corporate leaders, the business community, the educational community, and many others to identify both barriers to and solutions for good health in their communities. By encouraging and supporting these partnerships to invest in better housing, employment that meets the needs of the employee, affordable access to healthy food, and improved efforts to ensure higher education, we’re taking an individualized community approach to a nationwide health problem.

I implore people to think about who’s not at the table—who are those trusted community members outside our traditional health silos that could help us push forward health for the community. We also need to think about how we speak to them in a way that helps them see that it’s a win-win, that
it’s not just us coming to them with a handout or asking them to help us with our goals. Working together, we can help them achieve their goals of higher wages, increased productivity, decreased absenteeism, better performance within schools, safer communities—all by creating healthier communities.

**NACDD: Why is the work of state, territorial and tribal Chronic Disease Directors so important to our nation’s health?**

**Dr. Jerome Adams:** It is absolutely critical. When I was the head of the State Health Department in Indiana, I saw firsthand how important Chronic Disease Directors are to forging partnerships and giving people the toolkits they need to put what they want to do into action.

To better the health of our nation, it’s imperative that we work together and that we focus our efforts on upstream prevention. So much of our focus in this society is on downstream healthcare access and availability—that’s critical, but if we don’t get upstream, we’re just going to continue to be on that treadmill, we’re going to continue to fish people out downstream. And we’re going to get more and more burned out while never addressing the people who are unnecessarily falling in the stream in the first place. That’s why the work that NACDD is doing to convene Chronic Disease Directors to increase capacity, strength, leadership, and expertise for chronic disease prevention is so very important. It’s necessary and it’s critical to empower our communities with tools to build healthier futures for themselves, and for all of us living and working together in this great nation.

As I mentioned, folks in many cases know what they should be doing [to achieve better health]. But we have to motivate them to prioritize it, and we have to give them the tools to incorporate it into their daily lives. And that’s what the National Association of Chronic Disease Directors is all about. I think the opportunity is there to lift up the work that you’re doing, to bring your toolkits to more communities.

We’ve got a workforce crisis in this country right now. We have more unfilled jobs than there are people looking for work, and so the Department of Labor, the Federal Reserve, and other folks who you don’t traditionally think of when you think about health are coming to me as the Surgeon General, and reaching out to Chronic Disease Directors, or the governors in their state, asking what they can do to address the opioid crisis, or obesity, or smoking rates. I think Chronic Disease Directors and the people they work with should grasp those opportunities, and do it with a servant’s heart.

Servant leadership is trying to reach your goals by helping other people reach their goals. So, instead of focusing on hemoglobin A1c, focus on how you can increase property values and increase tax revenue in communities by creating walkable communities. Focus on increasing the number of people who will congregate downtown in an area because it’s smoke-free, versus simply saying we need to go smoke-free for the health of the individual. Being servant leaders and taking advantage of this opportunity will, I think, pay huge dividends in this area that we’re in where folks are realizing the value of prevention, especially in the backdrop of the opioid epidemic.

**NACDD: Anything you’d like to add?**

**Dr. Jerome Adams:** Congratulations on NACDD’s 30th anniversary. It’s been 30 great years of pushing people further and further upstream, and I’m hopeful that the next 30 years will see us really double down on our efforts to substantially increase our partnerships and get much more traction in regards to preventing chronic disease.
I have sometimes likened the early days in chronic disease prevention to building an airplane while flying it. We had deep knowledge about risk factors, but we did not have a clear menu of where and how to intervene, including developing evidence-based programs and policies. Leaders were trying to figure out capacity needs and specific areas of public health that needed to be represented to do effective chronic disease prevention and control. There was no network of professionals across the country working together on chronic disease control.

As an example of the lag in moving research to practice, the first studies on major risk factors for chronic disease (e.g., smoking, physical inactivity) were published in the early 1950s, so we have had risk-factor knowledge for well over half a century. In the United States, however, it was not until the late 1980s and early 1990s that these data were used to inform policy and develop state-based prevention programs. It took us that long to get public health past a focus on the immediacy of infectious diseases and into thinking about longer-term, chronic conditions as emerging primary causes of morbidity and mortality.

With the establishment of the CDC-sponsored Community Guide in 1996, we began to systematically consolidate and disseminate knowledge about evidence-based interventions. This provided the basis for translating evidence to practice in community settings, serving as a sound scientific basis for chronic disease control, and a set of tools for scaling up chronic disease control programs.

Another important set of approaches developed over the past two decades involves a greater focus on evidence-based capacity-building. Many people working in public health have not had extensive, formal training in the field, so there is an almost limitless need for on-the-job workforce development. NACDD and CDC, in partnership with our team at Washington University in St. Louis, have been instrumental in sponsoring a range of training programs to build skills in evidence-based public health.

We want the next generation of public health professionals to remain committed and engaged, while maintaining a strong focus on public health strategies that will improve health and achieve health equity. Often the media will focus on immediate threats—such as Ebola or West Nile virus—and while those also are important, chronic diseases often make a larger impact on costs to our healthcare system and on the rates of premature mortality and disability. We need new ways of framing the impacts of chronic diseases to policy makers in order to make their prevention a priority.

In addition, we need to bridge the gap with partners outside the health sector. One of the biggest challenges in public health is that we have traditionally worked in silos. Moving forward, we need to put more emphasis on the foundations of health equity—education, employment, food security, and the justice system—that cross-cut diseases and risk factors. A strong argument can be made that without addressing basic social needs, it will be difficult to attain public health goals. This will require new thinking and skills, and additions to our usual public health surveillance systems to include a focus on social determinants.
What is some of the emerging science around chronic disease?

The emerging evidence base on practice and surveillance helps us understand where we need to do more work. For example, recent data and research show us:

- Type 2 diabetes and complications from diabetes are rising among young adults.
- Breastfeeding is even more beneficial than we thought, for both mother and baby.
- Not getting enough sleep is linked to type 2 diabetes, heart disease, obesity, and depression.
- Physical activity has important benefits for cognitive health.

Our decades of work in chronic disease have led to a large evidence base of effective programs and practices that can be shared widely and adapted to local cultures and needs. For years, we have heard, “If we want more evidence-based practice, we need more practice-based evidence.” We are now turning that corner.

For example, the National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP) has been working with national pharmacy organizations and pharmacists to define and elevate the role of the pharmacist in public health. With coordinated drug therapy management, for example, pharmacists and healthcare providers develop a collaborative practice agreement (CPA). A CPA allows qualified pharmacists to assume professional responsibility for performing patient assessments, counseling, and referrals. They’re also able to order laboratory tests and administer drugs as well as select, monitor, and adjust drug regimens. These innovations to expand a pharmacist’s scope of practice are cost-effective means to improve treatment quality and increase medication adherence.

The Division of Diabetes Translation’s NEXT-D2 project also is using innovative methods to explore how real-world policies and programs affect diabetes prevention and care. The NEXT-D2 Network consists of eight research centers and three funding agencies (CDC, National Institutes of Health, and Patient-Centered Outcomes Research Institute) using rigorous methods to evaluate natural experiments in health policy and program delivery. Studies assess healthcare use and focus on patient-reported outcomes.

As new data emerge and technology changes, it’s critical that we, as a community of public health practitioners, ensure that programs and policies are well-documented and measurable. We must work to incorporate new knowledge into innovative practices that more quickly improve prevention and treatment of chronic disease.

What are some promising areas in science and innovation that will help move us forward in chronic disease prevention and control?

Much of the ongoing monitoring of Americans’ health status is based on CDC surveillance, so our surveillance methods must be responsive to the way people communicate today. We are pursuing modern technologies and data platforms as well as better use of data collected by others (e.g., via social media), data from other sectors (e.g., housing, transportation, education), and data from electronic health records.

For example, we’ve used electronic health records to identify people who have undiagnosed high blood pressure—a population essentially hiding in plain sight. Other innovative data sources, such as wearable devices and social media, can generate data in real time and can expand our reach by including people who may be unlikely to participate in traditional surveys. Scientists are also experimenting with new tools to make other kinds of surveillance easier and quicker—for example, by using Google Maps and Street View to automate assessments of walkable communities or identify...
locations and characteristics of hookah bars. These efforts were unimaginable just a short time ago.

We also are developing small area estimates with new modeling techniques based on data from national surveys. These estimates allow us to offer public health assessments that reflect the status and needs of local communities. In 2018, we published papers with county-level estimates for colorectal cancer screening, mammography use, and untreated dental cavities. We’re publishing city and even census tract health estimates in the 500 Cities Project, which began in 2015 as a joint effort with the Robert Wood Johnson Foundation and CDC Foundation to track data for better local health.

It’s an exciting time, and we are looking forward to continuing improvements. Being able to augment our major surveillance systems with these newer methods will allow us to get data faster that is more local, more relevant, and more actionable.

What can Chronic Disease Directors do right now to embrace or further some of the emerging science?

Chronic Disease Directors, and all of us in the public health community, need to seize the opportunity to use new technologies to improve the quality, timeliness, and availability of data. These efforts will allow decision-makers to more quickly identify where prevention resources and efforts should be focused, as well as expand successful interventions to more populations.

But we must also remember that many chronic diseases are caused by a short list of unhealthy behaviors: tobacco use and exposure to secondhand smoke, poor nutrition, lack of physical activity, and excessive alcohol use. Our focus should be on building healthier environments so the healthy choice is the easy choice; removing barriers to preventive services in the healthcare system; and developing our community-clinical links, like the use of community health workers to help people get better access to healthcare and community services.

How can states support CDC’s work to promote health equity?

As we all know, there is not a one-size-fits all approach to chronic disease prevention. While we are working to achieve health equity, we know that every community is unique. We rely on Chronic Disease Directors and state and local officials to help us understand the root of the problems that lead to chronic diseases in their state or community.

Chronic Disease Directors are out in front tailoring and adapting interventions to each population’s unique circumstances. Taking into account issues like economic stability, education, social and community context, health and healthcare, and neighborhood and built environment will help field interventions that meaningfully address health equity. Chronic Disease Directors are playing a pivotal role in promoting the health of the people in their own states and of all Americans who benefit from shared problem-solving and best practices.
What are some of the ways data shapes population health?

The first step in treating a medical condition is to gather data about the problem and its likely causes. Without that crucial data-gathering step, there is no diagnosis and no treatment. Chronic disease prevention needs to follow a similar process. Clinical data is important in treating individuals, but to really succeed at population health, we need data that allows us to truly think about prevention and wellness at a population level. In short, we need the kind of data the public health community has been collecting and analyzing for decades.

How can Chronic Disease Directors think about value-based care in the context of their work?

This is public health’s moment. Value-based payment is magnifying the need to integrate population health knowledge and methods with evidence-based clinical practices. There is tremendous power in the medical community to address chronic disease burden, but much of that power has been misdirected for decades. The public health community has the data, skills, and experience to redirect efforts toward paying for the right care, at the right place, at the right time. Public health should lead the conversation by convening and collaborating with stakeholders in individual markets.

Data is changing the way we look at chronic disease prevention. What is data showing us that you find encouraging, and what challenges are we discovering?

Advances in technology are encouraging traditionally consumer-facing companies to enter the healthcare space and collect data that traditional healthcare players never dreamed of collecting even five years ago. If this data can be harnessed properly, it will be a powerful engine for improving the well-being of millions of Americans. However, issues of data security and privacy will hinder these efforts. Chronic Disease Directors need to help craft policies that will allow this information to be shared and used in a way that’s more efficient and beneficial than it is now.
What opportunities are there for Chronic Disease Directors to collect and/or use data to get better outcomes?

Acting on extensive medical expertise, doctors order tests, ask questions, and identify relevant information to narrow in on a diagnosis and treatment plan for individual patients. Chronic Disease Directors similarly can use data to examine the population and prescribe appropriate disease prevention measures. Without that directive role, the “patient” is left to make sense of what is happening without any of the director’s expertise and perspective. Chronic Disease Directors must lay out the insights that are needed, identify opportunities for action, and then design policies to treat the issues identified.

What needs to change in our overall thinking of chronic disease prevention to help us create a healthier future that provides better value for the average American?

If we want to see a healthier future with better healthcare value for average Americans, we need to enable and create incentives for patients and physicians to make healthier choices. The entire system must move from a reactive, fee-for-service structure to a system that pays for value. Prevention efforts must play a central role in this transformation.

We also need to think more strategically about data. Good, solid data to identify problems and solutions is essential to directing our efforts to the most fruitful opportunities for improvement. We need data to inform political dialogue, offer viable solutions, and monitor progress.
How do we transition from public health to population health?

I’m not sure we transition so much as change our mindset about our approach. Public health has always been about the health of the broader population. A lot of people mistake public health with the idea of publicly provided medical care because of public health’s early work in infectious disease control and its need to act as a healthcare safety net to cover for America’s lack of a system of national health insurance. But public health has been most effective when it has been able to identify the sources of disease that threaten a broad population and has devised counter measures that protect the broad population. Controlling infection through prophylaxis and medical treatment, such as the polio vaccine, tuberculosis treatment and isolation, and sexually transmitted infection control represent healthcare interventions that benefit the population. But there are numerous examples of policy and systems changes that public health has advanced that have yielded broad population health benefits. Tobacco taxes, public education, and age of sale laws have all dramatically reduced the use of tobacco and the incidence of diseases such as lung cancer and cardiovascular disease. Mandatory seat belt laws and immunization requirements for school enrollment have protected millions from injury and disease.

What’s different now is that public health needs to consider what we might call “social” or “economic hygiene.” Just as John Snow saw before anyone else that a single pump was infecting broad parts of London with cholera, public health has come to recognize that poverty, the lack of affordable housing, the dearth of transportation options, the design of our cities, the proliferation of low cost, calorie-dense food in urban and rural areas, and high rates of crime all interact to elevate morbidity and mortality rates in certain neighborhoods and among certain populations. These social determinants of health, however, are more than just questions of health equity for some populations. We all suffer from the way we have unintentionally designed life in 21st century America.

Life expectancy for even the most privileged and wealthy cohorts in the U.S. falls below the rates of life expectancy in similar industrialized democracies. Public health will be limited in its ability to prevent disease and promote health if we focus only on the behaviors that directly impact health like smoking, injury prevention, nutrition, or physical activity. Redesigning the health system to focus less on acute care response and more on health promotion will only go so far if people continue to live in a society where the brutal consequences of economic hardship are broadly meted out to families across multiple generations; or if racism inhibits opportunity and compounds the stress and oppression of poverty; or if choices about where to live, eat, or sleep are constrained by political indifference or policies that benefit the few rather than everyone.
Why is changing our mindset about the role of public health important?

Our success in some public health areas has often highlighted for us the inequities of American society. For instance, we have seen smoking rates fall fastest and most sharply among the wealthiest and most educated populations.

Granted, smoking rates have fallen among a lot of groups, but smoking prevalence remains highest and most intractable among groups that are most often institutionally marginalized in our society—communities of color, people who are LGBTQ, workers who are low-income or manual laborers, and groups with lower levels of educational attainment. It’s hard to persuade someone to stop smoking if their time horizon is limited to putting food on the table this week, paying the gas bill this month, or making sure they can find a safe place to sleep tomorrow.

Doctors, nurses, and social workers see the impact of the social determinants of health every day. They recognize that they can’t help someone get their diabetes under control if that person is homeless; or that a patient can’t sustain a medication regime because of a substance use disorder or persistent, severe mental illness; or if a client can’t maintain a regular schedule of medical follow-ups because of a lack of transportation to the clinic.

Public health needs to forge new partnerships with some nontraditional allies to challenge the very fabric of American life and work collaboratively across sectors. Imagine a future where more people have safe, stable, affordable housing, where everyone benefits from the educational system, where all are able to fulfill their economic potential—and where social support systems actually lift families up so each member can contribute more fully to their communities.
In your work at the state level, what have you noticed are some of the biggest challenges in advancing the field of chronic disease prevention? Is there a shift in mindset needed to help State Health Departments align with where other healthcare organizations are going to reduce the burden of chronic disease?

I think the need for a mindset shift is really across the board. Public health has a key role to play in clearly articulating the relationship between existing social, economic, educational, and health policies and the resulting poor health outcomes our health system produces. There is very little understanding of this concept broadly in the U.S., and this inhibits discussion and the kind of action that would improve conditions for many. As public health professionals, one of our key roles is to educate the public about how policy decisions and our social circumstances determine health over a lifetime.

I find that many of my colleagues in Colorado and across the nation are already committed to the need to address the social determinants of health in our work. The problems we face right now are three-fold. First, there are few places where public health has begun using its resources to directly act on these problems and engage with other sectors, even though our workforce is generally convinced these upstream areas matter and that we need to address them. There are a few pockets, such as the work being funded by the California Endowment under Anthony Iton’s direction, and emerging initiatives, such as in Florida where they incorporate considerations of housing and economic opportunities in health assessments and health improvement plans. But, by and large, most chronic disease funding is required to be spent on secondary and tertiary prevention and programs. We haven’t been able to articulate why assuring high-quality, universal child care is a public health problem, or why regular and sustainable access to nutritious food should be supported by cardiovascular program funding as a primary prevention activity. Figuring out how existing public health funding can be used to bring about positive change to our social determinants of health remains essentially unknown to most in our field.

Second, we have to recognize that we aren’t a trusted voice or an expected face at the tables that are discussing education in America, the weakness of our social and economic safety nets, or the designs of our roads and cities. We need to be careful in how we move into dialogue with these sectors. We cannot come in and expect to take a leadership role right away or make much headway if our opening line is “You have been doing this all wrong for decades.”

“Getting involved in a discussion around funding inequities in education or the weakness of anti-poverty programs gets one quickly dismissed as a partisan political hack.”
We need to be careful, tactful, and collaborative in how we approach forging partnerships with these other sectors. We have to have a clear understanding of how these sectors can incorporate health into the way they do their work. We have to understand the incentives that teachers, highway engineers, police officers, and social workers are responding to and the limitations and constraints that they face. And we need to recognize that we are rarely bringing the kind of resources to the table that will lead these sectors to sit up, take notice of us, and listen. Instead, we need to think of ourselves in some conventional and unconventional roles.

We can help these sectors navigate data. We can educate them about the etiology of chronic disease and how these sectors play key roles in affecting the course and incidence of chronic disease. But we also need to think of ourselves as actors who can grease the skids for innovative partnerships— who can free and empower a sector that is willing to think of a problem differently to embrace a new approach. For instance, can we share a public health approach to crime prevention that is more successful than prohibition, acute response, incarceration, and brute force? Are there better crime prevention strategies that work more effectively for law enforcement outcomes when public health functions like a public health expert in this field?

Third, our country isn’t currently making the kinds of investments in these areas in a way that will result in realizing health benefits in the future. Unfortunately, we’re stymied here because this has been transcribed into a partisan political issue. Getting involved in a discussion around funding inequities in education or the weakness of anti-poverty programs gets one quickly dismissed as a partisan political hack. This is unfortunate because it’s not like the U.S. is a model of fiscal thrift in many arenas. We spend far more on healthcare than any other country.

Our retirement programs are a huge part of our budget. We often talk about low levels of social spending in America, but when you compare our total health and social spending levels to the combined levels in other countries, you see we are right in the middle of the pack. Of the $3.5 trillion we spend on healthcare, only about 3% goes to public health prevention strategies. And, when we look at the major policy arenas responsible for poor health outcomes, we are drastically under-investing. When it comes to food security, paid family medical leave, minimum income security policies, and universal child care, we are paying trillions for our failure to invest in these areas. We choose to spend resources on the back end, inefficiently so, rather than incorporating what public health teaches us: an ounce of prevention is worth more than a pound of cure.

Public health has to help all levels of American society understand that countless policy decisions shape our everyday life and can yield tangible health benefits or increased disease outcomes. Multiple aspects of American life are intentionally designed to make us sick. There is always a strong financial incentive for companies and entrepreneurs to profit from the behaviors that make us sick and from the treatments that may help us cure or manage the resulting illnesses. Public health has learned the value of prevention, and we must rise to teach the value of a broad array of prevention strategies, some traditional and some less so, to all of our fellow citizens.
Coordination Under the Big Sky: Chronic Disease Collaboration for Local Public Health Service Delivery

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Since 2011, staff of the Chronic Disease Prevention and Health Promotion Bureau at the Montana Department of Public Health and Human Services have worked to coordinate projects, reduce duplication, and maximize resources across programs. At the community level, however, work carried out by local health departments (LHD) through bureau contracts was still individualized and siloed by chronic disease subject. This resulted in multiple contracts between the bureau and each LHD, staff at LHDs not working collaboratively to address chronic disease, and duplication of resources and efforts.

In 2016, with the support of the bureau chief, the bureau’s chronic disease programs undertook a collaborative Quality Improvement (QI) project to create regional chronic disease contracts across the state.

- Bureau programs included: Arthritis, Asthma Control, Cancer Control, Tobacco Use Prevention, Nutrition and Physical Activity.
- Project aim: Increase collaboration and coordination of chronic disease prevention and control services at LHDs by regionalizing work and combining individual contracts.
- Project goal: By the fall of 2018, decrease the number of contracts by 50% and evaluate whether the decrease resulted in improved LHD customer satisfaction.

From November 2016 to July 2017, bureau staff implemented their action plan by meeting monthly, conducting calls with lead health officials at local health departments, rewriting the contracts to align deliverables, reworking the online contractor reporting system, and hosting bimonthly webinars with contractors to assist in writing yearly workplans and establishing regional chronic disease programs.

Initial outcomes of this QI project included a reduction of contracts from 45 to 13. Feedback from LHDs varied, with some indicating positive changes and opportunities for coordination, while others noted frustration and confusion about how to best implement collaborative programs.

In fall 2018, bureau staff wrote a three-year Strategic Evaluation Plan (SEP) to improve efficiencies in the contract process with LHDs, share success stories, and continually assess and improve the delivery of coordinated public health management and disease prevention services across Montana. This SEP guides the ongoing work of Montana’s chronic disease service delivery coordination.
There is an ongoing need to reduce morbidity and mortality due to chronic diseases, most of which are exacerbated by or have tobacco use as a risk factor. When chronic disease prevention and control efforts are integrated, impacts can be multiplicative. The Division of Tobacco Prevention and Control (DTPC), which falls within the Pennsylvania Department of Health (PADOH), collaborates with the Bureau of Health Promotion and Risk Reduction’s chronic disease programs to mobilize community intervention expertise and address cross-cutting health issues.

To measure collaborative efforts and successes, DTPC used the Prevention Institute’s Collaboration Multiplier, an interactive tool and framework designed to strengthen interdisciplinary collaborations. DTPC adapted the Prevention Institute’s process to (1) collect information from tobacco-funded regional contractors implementing chronic disease prevention programs across the Commonwealth and (2) conduct a thematic analysis of regional responses and chronic disease programs to identify shared partner strengths, strategies, and desired health outcomes. Analysis identified tobacco expertise, robust coalitions, and provider relationships as key partner strengths.

Integrating chronic disease programs benefits tobacco control efforts by cross-promoting cessation services, providing a mechanism for coeducation, facilitating comprehensive policies, and increasing awareness of tobacco control resources. DTPC staff and evaluators facilitated a statewide discussion with regional contractors to interpret the findings and identify ways to maximize impact.

Crosscutting collaborations have strengthened tobacco and chronic disease programming in Pennsylvania. The Collaboration Multiplier can be used by other states as a strategic planning tool to identify common goals, strategies, and expertise that can maximize health impacts across chronic disease programs.
The New Hampshire Division of Public Health Services’ Breast and Cervical Cancer Screening Program (NHBCCP) provides services to low-income, uninsured, or underinsured women. With the understanding that barriers to care extend beyond income and insurance coverage, the NHBCCP sought to identify geographic regions in which a large proportion of residents would meet eligibility criteria for the NHBCCP and face other barriers.

To identify populations meeting these criteria, NHBCCP created a Social Vulnerability Index using data from the United States Census Bureau’s American Community Survey data.

NHBCCP looked at income, insurance status, disability, language, minority status, single motherhood, transportation, and newly established residency factors by census tract, calculating the proportion of residents meeting each defined measure, as well as percentiles.

For each measure or potential barrier, a score of 1 was assigned to census tracts in the top 10th percentile. Scores were summed by census tract to assess vulnerability, with a higher score indicating that a community was among the most vulnerable.

Creating a targeted Social Vulnerability Index allowed us to identify specific geographic areas of potential high need where the NHBCCP can target services, outreach, and patient navigation.

Use of the index enabled the NHBCCP to make data-informed decisions for program planning using a broader set of social indicators, while also providing a methodology for prioritizing areas of need.
The Georgia Department of Public Health (DPH) engaged in a collaborative process to identify key health priorities with the development of the State Health Improvement Plan (SHIP). Chronic disease prevention was a noted area of importance, with the final SHIP including such objectives as reducing hospitalizations for type 2 diabetes by 25% by 2020 and reducing hospitalizations for hypertension by 10% by 2020. To meet these objectives, the Chronic Disease Prevention Section partnered with the National Association of Chronic Disease Directors to create a new healthcare model: CATAPULT.

The eight-component model addresses health equity by creating a standardized and systematic approach to improve the control and management of diabetes and hypertension. CATAPULT was piloted in two hospitals, with DPH providing support on engaging community partners and utilizing community health needs assessments to identify appropriate evidence-based interventions, such as the Diabetes Prevention Program (DPP), or projects related to the management and control of hypertension. Since the pilot, eight hospitals, six federally qualified health centers, two pharmacies, and two community-based organization/coalitions have implemented CATAPULT.

Guidance provided through CATAPULT helped Floyd Medical Center become the second Diabetes Prevention Program location in Georgia to achieve full-recognition. DPH continues to recruit systems with the support of the Georgia Hospital Association, which has committed to implementing the model in 10 hospitals per year over three years, and the American Medical Association, which will provide technical assistance to select sites. CATAPULT supported DPH in addressing priorities from the SHIP, improving health system performance measures, and building a culture of continuous quality improvement.
Facing a dearth of evidence for mass-reach health communication interventions to address youth obesity, the Alaska Department of Health and Social Services Obesity Prevention and Control Program (OPCP) looked to an established set of best practices that target behavior change: the U.S. Centers for Disease Control and Prevention's (CDC) Best Practices for Comprehensive Tobacco Control Programs. This case study illustrates how the Alaska OPCP successfully adapted and implemented each component of the best practices for tobacco mass-reach health communication interventions for an obesity prevention campaign called Play Every Day (PED).

The PED campaign, launched in 2012, is a multicomponent social marketing intervention that reached its target audiences through broadcast and cable television; radio; websites; digital and online ads; social media, including YouTube and Facebook; theater and transit ads; and print materials for schools, health professionals, and social service agencies. For each key element of the CDC-recommended approach, the case study summarizes accomplishments, challenges, and lessons learned.

Key accomplishments included partnering with tribal, medical, and dental health organizations to improve campaign reach and impact.

Key challenges included the resource and logistical limitations of conducting formative research in Alaska—particularly in remote communities—and the flexibility and scalability of the campaign. This case study is useful for public health practitioners with limited resources or experience wanting to implement an obesity prevention mass-reach intervention.
Health outcomes are impacted by disparities linked to economic, sociocultural, and/or geographic disadvantage. Utah is made up of 99 small areas, defined by communities, in which public health interventions could be implemented. To link health outcomes to health disparities, the Utah Department of Health created the Health Improvement Index (HII), a composite measure of social determinants of health by small area.

The index is a composite measure of health equity indicators that includes demographics, socio-economic deprivation, and economic inequality and that is based on methods used by Singh for the Area Deprivation Index. It was computed for each small area and standardized to a mean of 100 and a standard deviation of 20. The HII ranged from 72 to 160. Five categories were created: very high, high, average, low, and very low. The higher index indicates more improvement may be needed in that area. Thirty-six of the small areas were classified as high or very high. Rates of diabetes, obesity, healthcare coverage, and frequent mental distress all were higher in high or very high areas.

The Health Improvement Index can be directly related to health outcomes of specific communities, allowing for more informed public health intervention. The Utah Department of Health is developing a report for policy makers—by legislative district—that identifies areas within each district and shows the index as well as various health outcomes.

We plan to use the index to increase collaboration among agencies working with disparate communities, prioritize funding, and help local health departments target efforts with current Centers for Disease Control and Prevention funding.
Cross-sector collaboration is a key element of policy, systems, and environmental change initiatives to achieve health and address inequities. As part of the Oregon Health Authority (OHA)-Public Health Division, the Health Promotion and Chronic Disease Prevention Section (HPCDP) recognizes the value of cross-agency collaboration to leverage resources and improve health for employees, clients, and the public. HPCDP engages in numerous cross-agency efforts, including the following:

1. The Cross-Agency Health Improvement Project (CAHIP) convenes Oregon Health Authority and Department of Human Services leadership to implement policies across both agencies to support the well-being of employees and clients of Oregon’s two largest state agencies. CAHIP results include two Governor Executive Orders: Tobacco-Free Properties and Employee Wellness.

2. The Health Promotion and Chronic Disease Prevention Section partners with the Departments of Corrections, Education, and Agriculture; the State Hospital; and Oregon State University to implement food service guidelines, modify procurement practices, and leverage purchasing power to increase availability of healthful foods for food service programs that reach some of Oregon’s most vulnerable residents.

3. HPCDP partners with the Department of Transportation to help Oregonians move safely by supporting policies to prevent motor vehicle injury and to improve walking and walkability.

Success of such partnerships relies on agency leadership support and decision-maker participation. Using data to align existing priorities and establish clear roles is vital to maintaining productive partnerships. In doing so, we expect to enhance the foundational capabilities of our public health system by addressing the health-related needs of state employees and the people we serve.
In New York State (NYS), approximately one in four adults has a disability. People with disability experience a disproportionate burden of chronic disease compared to people without disability. To address these health disparities, the NYS Disability and Health Program collaborated with the National Association of Chronic Disease Directors and communities in the city of Syracuse and Cattaraugus County on a two-year national pilot project that bridged state disability and health efforts and community engagement by addressing physical inactivity, poor nutrition, and tobacco use and exposure.

The communities used the Community Health Inclusion Index from the National Center on Health, Physical Activity, and Disability (NCHPAD) to identify and address health disparities experienced by people with disability and to create action plans of inclusive policy, systems, and environmental (PSE) changes. Technical assistance and resources were provided to the communities by NACDD and the NYS Disability and Health Program, accelerating implementation of PSE changes promoting inclusion.

Changes included: accessible community gardens; infrastructure improvements such as curb cuts; crosswalk safety measures; sidewalk repairs; improved accessibility at a baseball stadium; and an inclusivity policy adopted for public walking paths. Community partnerships, strong coalitions, a focus on areas with change readiness, flexibility, and acceptance of timelines were keys to success.

Christine Olivares, a Cattaraugus County resident with vision impairment, says she is more independent with the cityscape because she doesn’t worry about traffic lights. Peyton Sefick, Project Coordinator with the Fitness Inclusion Network said, “having places to move around the city inspires all of us to get out there and to get moving.”

During this project, 19 sustainable PSE changes were implemented, improving access to physical activity and healthy food options, and reaching 25,554 people with disabilities.

Learn more about the project and watch videos from participant communities at chronicdisease.org/Disabilities.
Conversations about racial equity in our communities of practice must happen if we hope to address the root causes of health inequities. Institutional racism is subtle and difficult to identify because often it is a policy or procedure ingrained in routines. Institutional racism contributes to health disparities and inequities. For example, African-Americans are more likely to have a chronic illness or disability than white people. While there are many factors at play, we know that even with similar access to care, African-Americans have a higher mortality rate from preventable diseases than other racial groups.

In 2017, the National Association of Chronic Disease Directors’ Health Equity Council (HEC) launched the Moving to Institutional Equity Tool to help State Health Departments recognize institutional racism. Worksheets, which were designed to build upon each other, provide step-by-step directions to identify potentially racist policies or procedures and explore opportunities for change. In August 2018, the HEC completed a nine-month pilot of the tool with representatives from nine State Health Departments. The results provided encouraging feedback and potential next steps. Participants felt the worksheets could be used independently or in a different order than presented depending on the task. The council members, who created the tool, were asked to consider creating an online portal for the worksheets and to provide additional examples of how the tool could be used.

Lessons learned from the pilot are familiar. They include the need for: a) the commitment of leadership; b) the formation of a workgroup to complete the tasks required by the tool; c) time to do the work; and d) use of data.
Nearly 1.5 million Minnesota adults are estimated to have prediabetes. In 2012, the average diabetes cost for each insured Minnesota adult with diabetes was $16,300. The National Diabetes Prevention Program (National DPP) has proven to reduce risk of developing diabetes.

Minnesota instituted insurance coverage for the National DPP for state employees in 2015 and for Medicaid beneficiaries in 2016. Today, about 130,000 state employees and covered dependents, and more than 530,000 Medicaid beneficiaries have National DPP coverage. This coverage caused a ripple effect. The three health plans contracted to provide claims administration services for state employees set up new billing processes for the National DPP, building infrastructure to offer the program through new lines of business.

In addition, Minnesota required Medicaid managed care organizations to cover the National DPP or equivalent services. All Medicaid managed care organizations added the National DPP CPT code 0403T to their claims systems. Together, these changes created momentum for more insurers to offer the program. Today, 87% of Minnesota’s commercial market is covered by insurers that offer employers a National DPP benefit option.

To move coverage forward, the Minnesota Department of Health (MDH) convened a stakeholder workgroup to promote the program’s Medicaid payment. The department surveyed insurers, Medicaid managed care organizations, the Department of Human Services, and National DPP providers to assess contracting and billing experiences. It learned that community providers have less payment knowledge and organizational capacity than clinically based providers and that they face unique system barriers.

To further support efficient payment, MDH is developing Medicaid payment tools and technical assistance, as well as exploring additional provider business structures and models.

Moving Policy Into Practice: Minnesota’s Evolving Expansion of National Diabetes Prevention Program Coverage Through Employers, Insurers, and Medicaid

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Today, about 130,000 state employees and covered dependents, and more than 530,000 Medicaid beneficiaries have National DPP coverage.
In Massachusetts, the Department of Public Health’s Bureau of Community Health and Prevention has taken steps to mitigate the impact of institutional racism on staff, programs, and Commonwealth residents. As part of the bureau’s Racial Equity Initiative, staff have attended racial equity trainings, and several chronic disease programs have begun implementing a framework that leads with race and racism. Implementing this work across the bureau has included reframing for racial justice, staff trainings and labs, incorporating racial justice principles into procurement, equity-related adjustments to hiring through candidate selection and interview questions, and including racial justice work in performance reviews.

The bureau has adopted a Why Statement for engaging in this work, expressing that while the history of structural racism and its impact across the country and within Massachusetts are often overlooked or unacknowledged, it is pervasive and harmful to everyone. The inequities that racism cultivates in housing, education, employment, built and social environments, and healthcare are felt across generations, most acutely in communities of color. We recognize that structural racism operates across systems and needs to be acknowledged and repaired by entities that helped create and continue to perpetuate it.

The bureau is committed to improving the quality of life for all residents while eliminating inequities that threaten their lives. We discuss race and racism explicitly, but not exclusively, maintaining a vitally intersectional approach. We continue to reframe the way we use and present data on the toxicity of racism, adding historical and structural context to ensure a justice-oriented narrative.
West Virginia leads the country in health disparities and economic impact related to chronic disease and obesity. Try This is a collaboration of 20-plus organizations working to reduce health disparities by creating opportunities for communities to build on existing strengths and generate solutions for themselves, while developing a statewide network of resources and support. Try This provides grants to implement CDC-recommended strategies to improve physical activity and food access.

A mixed-methods research evaluation was used, including a document analysis of community mini-grant reports, online surveys, and interviews with key informants to assess policy, systems, and environment changes. In two years, this community-level statewide intervention of 95 mini-grants yielded 27 improvements to physical activity spaces (including walking, biking, and fishing access), and 44 food environment improvements (including community and school gardens and high tunnels), as well as 30 policy or systems changes to support these improvements. Additionally, 95 communities across the state, working with an initial investment of $179,144, leveraged resources of volunteer hours, in-kind donations, and monetary donations exceeding $2.14 million. Grantees were asked to commit to organizational policy commitments as part of their application for providing healthy food options and physical activity within their organization. More than 97% of applications included commitments.

Try This provides a roadmap for sustained community-level health interventions. Try This provides a means for increasing beliefs that West Virginia can get off the worst health lists and has connected like-minded citizens with others who have championed West Virginia projects. Citizens feel they are better equipped to help their community and that they have access to practical how-to resources.
If you need this publication in another format, such as large print or a colored background, please contact publications@chronicdisease.org.
“ProVention helps me prevent the preventable.”

Not all chronic conditions can be prevented, but there are many ways to reduce their risk. At ProVention, we spend our days helping to promote and perfect those pathways to prevention. We work with non-profits and for-profits. We partner with other foundations and individuals. We are focused on reducing the need for treatment and cures by preventing disease from ever beginning in the first place. Come join us. Let us partner with you to promote a paradigm of prevention. Bring us your favorite dream or vision or project, and we will work to make it a reality while making the problem a thing of the past.

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