RECOMMENDATIONS FROM THE AMERICAN HEART ASSOCIATION

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American Heart Association | American Stroke Association

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STATE CARDIOVASCULAR HEALTH PROGRAMS: A GUIDE TO CORE INFRASTRUCTURE, ACTIVITIES AND RESOURCES

EXECUTIVE SUMMARY

The American Heart Association (AHA) works to improve the heart health of all Americans. Its initiatives in advocacy, education, and research have been impactful in mitigating the enormous physical and economic burden of cardiovascular disease (CVD) in the United States. Nevertheless, there is a great deal more that could and should be done to improve cardiovascular health; CVD is the leading cause of death among Americans and has been for nearly a century.[1]

In recognition of the continued public health crisis CVD poses, AHA convened an expert panel of cardiovascular, budgetary, and public health experts. The panel advised AHA on developing this guide for state health departments and CVD prevention and control programs to improve cardiovascular health in their jurisdictions. This guide focuses on expanding the capacity and reach of CVD prevention and control programming at the state level and suggests possible ways to help fund these initiatives.

The recommendations in this guide are divided into three subsections: core infrastructure for state departments of health, key activities for state CVD prevention and control programs, and suggestions for sustainable funding for CVD prevention and control activities.

1. **Core Department of Health Infrastructure:**
   For state health departments to effectively implement key activities, all states should have a dedicated CVD prevention and control program with adequately trained staff working in a full-time capacity. In addition, it is necessary for a state to have organizational capacity to carry out key CVD related activities. Recommended core infrastructure for a state Department of Health begins on page 4.
2. **Key Activities for a State CVD Prevention and Control Program:**
   AHA recommends that a CVD prevention and control program conduct a number of key activities to advance cardiovascular health. These key activities are divided into primary prevention, secondary prevention, and surveillance and monitoring.

   Key primary prevention activities focus on staving off the development of CVD before it arises. The lifestyle and environmental activities AHA recommends to CVD prevention and control programs include those focusing on promoting healthy eating and active living, facilitating tobacco cessation, and addressing risk factors and disparities. Specific recommendations begin on page 5.

   Key secondary prevention activities focus on ensuring the best possible treatment and on-going care for people with CVD to reduce additional events. Recommended key activities begin on page 6.

   Key surveillance and monitoring activities focus on tracking and understanding disease trends and interventions. Recommended surveillance and monitoring activities for a CVD prevention and control program to implement begin on page 6.
3. **Sustainable Funding for CVD Prevention and Control Efforts:**
   States should aggressively identify ways to leverage multiple resources to help support state CVD prevention and control initiatives. This guide presents a number of resources that states could explore to complement existing funds for CVD prevention and control efforts. These potential resources begin on page 7.

Finally, this guide suggests a process through which state departments of health can assess current CVD prevention and control programs, consider future needs and identify potential sources of funding. These steps begin on page 17.

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Table of Contents

Introduction **4**

Core Infrastructure for Departments of Health **4**

Key Activities for a State Cardiovascular Disease Prevention and Control Program **5**

Primary Prevention 5

Secondary Prevention 6

Surveillance and Monitoring 6

Sustainable Funding for CVD Prevention and Control Efforts **7**

Tax Revenue 7

State Prevention and Wellness Trusts 8

Social Impact Bonds 9

Innovative Public Health and Prevention Uses of CMS Funding 10

Active Transportation Initiatives 11

Tobacco Master Settlement 11

Hospital Community Benefit 12

Agriculture Extension Funding 13

Coverage of Preventive Services – Private Insurance, Medicaid and Medicare 13

Employee Wellness Programs 14

Foundations 15

Conclusion: Next Steps for State Health Departments and Partners **17**

Introduction

Approximately 92.1 million adults in the United States (U.S.) have at least one type of cardiovascular disease (CVD), such as coronary heart disease, myocardial infarction, heart failure, or stroke.[2] This number includes the 7.2 million U.S. adults ages 20 and older who have had a stroke at some point in their lives; an estimated 795,000 people experience a new or recurrent stroke every year.[3] Overall, more than one in three U.S. adults suffers from CVD in some form.[4] If trends continue unchecked, this figure is projected to rise to 43.9 percent of U.S. adults by 2030.[5]

The high prevalence of CVD in the U.S. population has a substantial effect on mortality. CVD has been the leading cause of death in the U.S. for nearly 100 years and accounted for 807,775 deaths in 2014 alone.[6]

CVD also creates a sizeable economic burden in the United States,[7] including $396 billion in direct healthcare costs and $183 billion in lost future productivity, totaling an estimated $579 billion in 2012.[8] A 2017 analysis by the American Heart Association (AHA) projects that by 2035, direct costs of CVD will increase to $749 billion, and indirect costs will increase to $368 billion, for a total estimated impact of $1.1 trillion per year.[9]

Despite the estimated economic burden of CVD, perennial challenges to federal public health funding can make it difficult to fully support CVD prevention and control programs in states. In light of these challenges, AHA convened an advisory group of experts (see page 4) to inform the development of a guide to help state policymakers, health officials, and advocates identify and fund state cardiovascular prevention and control priorities.

Report Sections and Purpose

First, this guide introduces AHA recommendations for core infrastructure for a state health department. Next, the guide describes key CVD prevention and control activities that should be implemented by a state CVD prevention and control program. These activities do not represent a single, rigid model for all states to follow but rather provide a foundation on which states can build. Priorities should be refined and adjusted based on each state's unique needs.

Finally, the guide details a range of resources that states could consider leveraging to help fund CVD prevention and control programs. These resources include both revenue-generating efforts, such as new taxes, as well as other resources that could be leveraged to promote heart health, like employee wellness programs. The sustainable funding section is intended to help states supplement existing funding for key activities presented in this guide.

Core Infrastructure for Departments of Health

All states should have a dedicated CVD prevention and control program with adequately trained staff working in a full-time capacity to effectively implement the key CVD prevention and control activities discussed in this guide. The blueprint will help guide states to prioritize programs and initiatives that will improve the overall cardiovascular health of people living in the state.

AHA recommends that all state departments of health have the following components of core infrastructure within it's CVD programs:

In addition to this core infrastructure, state health departments should:

- Facilitate expansion of insurance coverage (both public and private) and access for CVD prevention services and programs;
- Ensure appropriate capacity and diversity of skills, expertise, and experience across the healthcare workforce; and
- Communicate the value of public health investment on disease outcomes and burden to stakeholders, media, and public officials.
- Work to reduce health disparities in communities and ensure programs, tools and resources reach communities with the highest burden of disease.

Key Activities for a State Cardiovascular Disease Prevention and Control Program

To help guide state efforts, this section describes key activities that states should consider when implementing a CVD prevention and control program.

Methodology

The key activities described in this guide build on earlier AHA work related to heart health goals. In 2007, AHA, in consultation with more than 170 scientists, formed a Strategic Planning Task Force to develop the AHA's "2020 Impact Goals."[10] The Task Force sought to define "ideal cardiovascular health;" prioritize cardiovascular health initiatives; and outline effective mechanisms to measure, monitor, and improve cardiovascular health in the United States.[11] The 2020 Impact Goals, published in 2010, outline a number of health behaviors to achieve ideal cardiovascular health including nonsmoking, a healthy diet, a healthy BMI, and physical activity. Through these recommendations, AHA intends to help "improve the cardiovascular health of all Americans by 20% while reducing deaths from cardiovascular diseases and stroke by 20%" by 2020.[12]

To meet this health impact goal, AHA developed a Strategic Policy Agenda for 2017 to 2020 that outlines a number of policy priorities, advocacy initiatives, and strategic actions.[13] The key activities listed in this guide are intended to help states meet AHA's 2020 Impact Goals, and reflect key state-level priorities from the Strategic Policy Agenda.

These recommended activities also build on current CDC requirements for its major chronic disease prevention and control programs. Under the CDC's "State Public Health Actions to Prevent and Control Diabetes, Heart Disease, Obesity and Associated Risk Factors and Promote School Health" program, all 50 states and the District of Columbia receive funding to implement a number of "base components" to address chronic diseases like obesity, diabetes, heart disease, and stroke.[14] Thirty-two states receive additional funding to implement "enhanced components" to combat these diseases with more intensive interventions.[15] In addition, the activities recommended in this guide were informed by input from the expert advisory group convened by AHA expert group.

This document is not an implementation guide. States should go beyond key activities where possible, and adapt them to meet the needs of their residents. State health departments are encouraged to contact AHA and/or CDC for implementation guidance and resources.

The list of AHA recommended key activities for a state CVD prevention and control program is divided into three categories: Primary Prevention, Secondary Prevention, and Surveillance and Monitoring.

Some key activities are primarily focused on cardiovascular health and the AHA urges state CVD prevention and control programs to be the lead in these activities. Other activities are inherently more cross-cutting: they are crucial to cardiovascular health, but will likely involve a range of stakeholders across a state's health department, either among other chronic disease staff or beyond. For these activities, AHA recommends that CVD prevention and control programs play an active role in ensuring that efforts are optimized from the perspective of CVD prevention and control.

Primary Prevention

Background

Primary prevention, as a core component of heart health, addresses a number of risk factors, particularly lifestyle and other behaviors, to prevent the occurrence of heart disease. There is significant evidence to support a variety of primary prevention activities as part of a state's CVD prevention and control program. Research supports a number of effective healthy dietary practices including maintaining a healthy body weight,[16,17] consuming healthy amounts of saturated fats,[18] reducing intake of sodium,[19] and preventing comorbid conditions like type 2 diabetes.[20,21] This research has been incorporated into recommendations by AHA and by CDC, among others.[22,23,24,25,26] Similarly, evidence demonstrates that increasing physical activity[27,28] can promote healthy body weight, lower blood pressure, and reduce cholesterol, which, in turn, can reduce CVD risk. This evidence has also been widely incorporated into guidelines.[29,30,31] Finally, many studies link tobacco (both traditional cigarettes[32] and smokeless tobacco[33]) to increased risk of CVD.[34,35]

Recommended Activities

Healthy Eating
• Promote the adoption of healthy food service guidelines and nutrition standards, including sodium standards.
• Increase access to healthy food and beverages and create supportive nutrition environments.
Active Living
• Promote the creation of built environments that are conducive to physical activity.
• Promote the adoption of regular physical education in schools.
• Promote the adoption of physical activity in early child care centers, schools, and work sites.
• Increase screening for and prescription of physical activity/physical fitness within payment and delivery systems of care.

Tobacco Prevention

- Provide comprehensive tobacco prevention and cessation programs at CDC- recommended funding levels[36] to support these programs.
- Support comprehensive clean indoor air laws to ensure healthier living and working spaces and improve individual and community health.

Other Risk Factors and Disparities

- Increase awareness of, and education around, CVD risk factors.
- Identify and address factors contributing to undiagnosed hypertension.
- Reduce CVD risk factors among at-risk adults by providing preventive services to uninsured and underinsured people including blood pressure, cholesterol, and diabetes testing aligned with current guidelines.[37]
- Reduce racial and ethnic health disparities, as well as other disparities, by building partnerships, strengthening capacity, and implementing evidence- and practice-based strategies in communities disproportionately affected by CVD.

Secondary Prevention

Background

For individuals who have already developed CVD or who have had a stroke, a large evidence base supports secondary prevention which involves targeted interventions to mitigate the risk of future adverse events or worsening CVD.[38] Secondary preventive interventions like team-based care (i.e. "the incorporation of a multidisciplinary team for delivery of healthcare services…organize[d]…around patients' needs")[39] and other innovative health systems improvements[40,41] are effective interventions. Significant gaps remain in quality of care for CVD, including disparities by geographic region, sex and race/ethnicity.[42]

Recommended Activities

- Increase implementation of quality improvement processes in health systems.
- Initiate activities that promote clinical innovations, clinical community linkages, team-based care, self-monitoring of blood pressure, and other activities to effectively control blood pressure, A1C, and cholesterol.
- Develop and implement medication optimization programs to manage blood pressure, high cholesterol and cardiovascular disease and prevent heart attack and stroke recurrence.
- Address disparities in usage of evidence-based secondary CVD prevention, including team-based care.
- Support weight loss and nutrition counseling for CVD survivors.
- Promote coverage of and access to cardiac rehabilitation in private and public insurance.
- Encourage payment and delivery system reforms that improve the safety, effectiveness, efficiency, equity, timeliness, and patient-centeredness of care.
- Facilitate the coordination and enhancement of stroke and ST-Elevation Myocardial Infarction (STEMI) systems of care.[43,*]
- Encourage implementation of evidence-based telehealth interventions that are in parity with in-person healthcare encounters.

Surveillance and Monitoring

Background

Reliable surveillance systems are critical to reducing the burden of CVD. Surveillance systems are particularly important in tracking the rise of emerging trends such as obesity, congestive heart failure,[44,45] stroke mortality,[46] and regional and subgroup differences of myocardial infarction incidence.[47] Comprehensive and accurate surveillance systems are key to assessing program planning, implementation, and evaluation.[48]

Recommended Activities

- Improve comprehensive chronic disease surveillance systems including maintaining effective surveillance systems for stroke and cardiovascular risk factors, including the Paul Coverdell National Acute Stroke Registry program.[49]
- Conduct data collection of behaviors and potential risk factors for chronic disease to promote population health.[50]
- Promote reporting of blood pressure, A1C and other consensus-based measures to quality improvement organizations and payers to promote population health.

- Encourage the use of registries to collect data as part of payment and delivery system reform initiatives.
- Facilitate data platform sharing across private/public sectors to optimize precision medicine initiatives.
- Promote optimal use of Electronic Health Records (EHRs) including interoperability to improve CVD surveillance systems.
- Facilitate surveillance of CVD events including myocardial infarction, newly diagnosed heart failure, atrial fibrillation, and stroke.

Sustainable Funding for CVD Prevention and Control Efforts

In addition to allocating state budget dollars, states should aggressively identify ways to leverage multiple resources to help support CVD prevention and control initiatives. Uncertainty with regard to federal funding for state public health programs make the exploration of supplemental or alternative funding sources even more critical.

This section presents a number of resources that states could explore to complement current funding for CVD prevention and control efforts. These potential resources include:

- Tax revenues (dedicated use of tobacco tax revenues and sugar sweetened beverage taxes),
- State prevention and wellness trusts or funds,
- Social impact bonds,
- Innovative public health and prevention uses of CMS funding,
- Active transportation initiatives,
- Tobacco master settlement funds,
- Hospital community benefit,
- Agriculture extension funding,
- Coverage of preventive services coverage through private and public insurance,
- Employee wellness programs, and
- Foundations and other public-private partnerships.

For each option, a brief background section is followed by one or more relevant examples.

This is not an exhaustive list, but rather a set of resources identified by AHA that could help fund or support state CVD prevention and control initiatives. Some are new revenue sources (e.g. taxes); others are existing resources that should be optimized for cardiovascular health (e.g. preventive service coverage requirements or employee wellness programs) to allow for the best use of scarce public health resources.

Tax Revenue

Variations of taxes on products that are known to cause harm have been enacted and/or proposed in states nationwide, offering states a way to disincentivize purchase of the taxed product while also raising revenues from those purchases. This revenue often goes toward public health efforts to combat health issues related to the taxed product. There are several products that states may consider taxing, both to discourage consumption of these products that are associated with poor heart health and to generate revenue for CVD prevention and control programing.

Examples:

- **Tobacco Tax Increase:** An overwhelming amount of research, going back over half a century, has linked tobacco consumption to CVD.[51] Further, the causal relationship between tobacco consumption and stroke has been widely accepted for more than 25 years.[52] Largely in recognition of the public health burden tobacco causes, states have increased taxes on cigarettes 128 times since 2002.[53] Currently, the federal cigarette tax is $1.01 per pack, and the average state cigarette tax is $1.69 per pack.[54] Moreover, research suggests that increasing the price of cigarettes is an effective tobacco control strategy.[55,56,57] While all states employ a cigarette tax to discourage tobacco consumption, several states use the revenue generated for specific efforts related to CVD prevention and control. For example:
  - A portion of Arizona's $2.00/pack tax on cigarettes funds the state's Health Research Account (HRA). The HRA can be used to fund biomedical research initiatives including those targeting "the prevention and treatment of tobacco related disease and addiction" and "research into the causes, epidemiology and diagnosis of disease, the

*STEMI is a type of heart attack during which one of the heart's major arteries that supplies oxygen and nutrient-rich blood to the heart muscle is blocked. Lloyd-Jones, D. M., Hong, Y., Labarthe, D., Mozaffarian, D., Appel, L. J., Van Horn, L., ... & Arnett, D. K. (2010). Defining and setting national goals for cardiovascular health promotion and disease reduction. *Circulation*, 121(4), 586-613.

formulation of cures, [and] the medically accepted treatment or the prevention of diseases."[58] Tobacco taxes in the state also help fund the Health Education Account (HEA) for tobacco education and prevention programs.

- The Arkansas Department of Health, Arkansas Department of Education, and Arkansas Center for Health Improvement utilize revenue generated from tobacco taxes to fund shared use and promote physical activity in the community.[59] The program, which began in 2009 following the state's passage of the Tobacco Excise tax (which increased taxes on cigarettes by $0.56/pack to $1.15 total), provides $500,000 annually to fund schools and school districts to implement shared use agreements.[60] Public and charter schools may apply for grants to fund construction, improvement, or equipment purchases for school facilities, playgrounds, gyms, walking tracks, and more. Potential grantees must have a shared use policy so that the entire community may benefit from increased access to areas conducive to physical activity.

- **Sugar-Sweetened Beverage Tax:** High sugar consumption is positively associated with heart disease risk, even for those who are not overweight or otherwise unhealthy.[61] Added sugars offer little to none of the nutritional value found in sweet whole foods like fruit;[62] sugar-sweetened beverages are of particular concern.[63] To discourage individual consumption of these beverages and to raise funding to help combat high rates of heart disease, so-called 'Soda Taxes' have been proposed or enacted in a number of cities and states:

  - In the first full year of its one cent-per-ounce sugar-sweetened beverage tax, Berkeley, CA met its projected $1,600,000 revenue.[64] The tax is now expanding into other California Bay Area cities—San Francisco, Oakland, and Albany—and the resulting reduction in related healthcare costs is projected to be $54.9 million over 10 years.[65] This estimate is partially attributed to the resulting lower rates of diabetes (four percent reduction) and obesity (6,000 fewer individuals affected) in the state.

  - Beginning in January 2017, Philadelphia, PA taxes distributors of sweetened beverages $0.015 per ounce of sugary drinks, as well as the syrups and other concentrates that may be used to sweeten beverages, including artificially-sweetened or 'diet' beverages.[66]
    Multi-use sweeteners such as honey are not subject to this tax. In 2020, 99 percent of the revenue generated will go towards pre-K and public education, and to investments in parks, recreation centers, and libraries. The remaining one percent will go towards a tax credit that will help small businesses sell healthier items.[67] In its first three months, the tax has resulted in $19.3 million in new revenue.[68]

  - In 2016, the city of Boulder, CO voted to approve an excise tax of two cents per ounce on sugar-sweetened beverages. A projected $3.8 million in additional revenue will be raised in the first year to be put towards health promotion, programs promoting general wellness, and chronic diseases related to sugary drink consumption.[69] The tax took effect July 1, 2017.

The University of Connecticut Rudd Center for Food Policy has an online calculator demonstrating estimated revenue numbers[70] for a one cent-per-ounce tax on sugar sweetened beverages in states and 25 major cities.[71]

State Prevention and Wellness Trusts

States may opt to establish a prevention and wellness fund to support CVD prevention and control initiatives. This option is a mechanism for using funds, rather than a specific recommendation for generating funds. Savings generated through successful prevention and control efforts can be reinvested to increase sustainability of the fund.

Revenue for wellness trusts can come from multiple sources, including many of the revenue-generating mechanisms described in this section including:

- Medical licensing and other standard fees,
- Fees on health insurers or hospitals,
- Community benefit funds from tax-exempt hospitals,
- Taxes or fees on products with known health risks (e.g. tobacco, sugar-sweetened beverages, etc.),
- Legal penalties or settlements (e.g. Tobacco Master Settlement Agreement funds),
- Private or corporate philanthropy,
- Voluntary purchases (e.g. California Kids' license plates program), and
- Federal funding opportunities (e.g. 1115 Medicaid waivers, State Innovation Models).

Examples:

- **The Massachusetts Prevention and Wellness Trust Fund** was the nation's largest prevention and wellness fund; it was financed through a one-time assessment fee on insurers and hospitals with more than $1 billion in cash assets.[73] When the trust was created in 2012, $60 million was allocated to be distributed over a four-year period.[74] The fund included two programs: the Prevention and Wellness Trust Fund Grantee Program that funds community partners to deliver prevention services and the Massachusetts Working on Wellness program that finances worksite health promotion programs. Local communities, health care providers, health insurers, and regional-planning agencies are eligible to apply for funding from the Grantee Program;[75] the initial funding awarded in January 2014 went to nine communities, local health agencies or health centers.[76] Each grantee received an average of $250,000 to build capacity in year one and between $1.1 and 2.5 million to implement programming in years two through four.[77] The state required grantees to focus on two of four priority issues: tobacco, pediatric asthma, hypertension, and falls. Grantees could also focus on obesity, diabetes, oral health and substance abuse.[78]

Social Impact Bonds

As government funding for social services declines, growing attention has been given to a new funding approach – Social Impact Bonds (SIBs, sometimes known as "Pay for Success" or PFS contracts). SIBs are innovative public-private partnerships to fill funding gaps for social programs.[79] Instead of government paying nonprofit organizations to deliver social services, private entities provide upfront capital and are later repaid by the government (along with whatever potential profit their investments generate), if and when contractually-agreed-upon objectives are achieved.[80] In most cases, an independent third-party evaluator analyzes program performance to determine if the program met agreed-upon goals and determines if investors will receive capital return.[81]

SIBs provide a new way for social programs to save money and to improve accountability and are gaining interest from policymakers as a tool to meet the demands of tight budgets and increasing social service costs.[82,83,84] SIBs are best suited for projects that have the following:[85]

- Demonstrated government commitment,
- A private entity with the ability to effectively deliver services and capacity to take services to scale,
- The potential for high net benefits and return on investment that translate into financial benefits or cost savings,
- An evaluator with demonstrated capability to measure and analyze outcomes, and
- Protections against unexpected adverse outcomes.

The federal government provides PFS and other social financing investments to cities, states and nonprofits through the Social Innovation Fund (SIF) at the Corporation for National and Community Service.[86] The SIF includes two programs: SIF Classic (the original SIF program) and PFS, with the main difference being that PFS ties funding to successfully meeting predetermined outcomes.[87] Both programs focus on youth development, economic opportunity and healthy futures.[88] The SIF requires that each federal dollar be matched one-to-one by private and other non-federal sources. Through this public-private partnership, the SIF leverages about $93 million in matching funds annually and has funded over 426 grantees in 44 states and the District of Columbia.[89]

At the state level, twenty-four states and the District of Columbia have enacted legislation to advance social impact financing. Legislation ranges from establishing state study committees to creating funds and supporting pilot projects.[90] Social financing models have focused on chronic disease prevention including diabetes, asthma, and maternal and child health.[91] States could utilize PFS models to expand existing CVD prevention and control efforts that have demonstrated success.

Examples:

- **South Carolina** launched a $30 million Nurse-Family Partnership PFS project in 2016 to expand services to low-income mothers for four years.[92] Nurse-Family Partnership, a nationwide evidence-based program, pairs vulnerable first-time parents with specially trained nurses.[93] The nurses provide education on healthy pregnancies and responsible parenting through home visits that begin during pregnancy and continue throughout the child's first two years of life.

  The project is led and funded by the South Carolina Department of Health and Human Services (SCDHHS) with an additional $17 million from private foundations. The SCDHHS also receives some government contribution through a 1915(b) Medicaid Waiver.[94] The project has established outcome measures for evaluation including a reduction in preterm births, reduction in child hospitalization and emergency department use, increase in healthy spacing between births and increase in the number of first-time mothers served in certain geographic areas with high concentrations of poverty.[95] The state will make success payments of $7.5 million only if independent evaluators find positive results.

- **Colorado** enacted legislation in 2015 that established the "Pay for Success Contracts Program."[96] Rather than focus on a specific area or fund a specific program, the state initially had broad criteria for eligibility – to increase "economic opportunity and the likelihood of healthy futures and promoting child and youth development."[97]

  In January of 2017, Governor John Hickenlooper announced a "Call for Innovation" to solicit innovative proposals from nonprofits, local governments and service providers in the state to improve outcomes for youth and their families. The Office of State Planning and Budget identified two focus areas for projects: improving high school graduation rates and reducing juvenile justice involvement among young first-time offenders.[98]

Innovative Public Health and Prevention Uses of CMS Funding

The Centers for Medicare and Medicaid Services (CMS) provides federal funding for a broad range of innovative state initiatives that can be leveraged to support cardiovascular health and wellness efforts. Key examples include:

- **CMS's Innovation Center:** The Innovation Center is CMS's hub for testing models of care for Medicaid, Medicare, and/or CHIP beneficiaries.[99] The statutory charge of the Center is to test "innovative payment and service delivery models to reduce program expenditures …while preserving or enhancing the quality of care."[100] Some of the Center's programs are particularly relevant to heart health and stroke prevention and control. For example, the Accountable Health Communities (AHC) Model promotes clinical-community collaboration to link high-risk Medicaid and Medicare beneficiaries to a range of social services that reduce their health risks.[101] The Center also administers the State Innovation Models Initiative, which tests multi-payer reforms to improve service delivery and health.[102]
- **Medicaid Waivers:** Within the Medicaid program, states can apply for a range of waiver types to experiment with different models of service delivery and payment reform. Waivers allow states flexibility with regard to certain statutory requirements, on the condition that the proposed activities serve the overall goals of the Medicaid program. Depending on the political environment, Medicaid waivers can generate controversy, with some states requesting restrictions or requirements that could in fact limit coverage for beneficiaries. While remaining aware of such risks, CVD prevention and control staff in the states should also explore potential opportunities for health promotion within any proposed state waivers.
- **Medicaid Health Homes:** The Affordable Care Act provided funds to incentivize states to develop "health homes" for Medicaid beneficiaries with two or more chronic conditions, or with one chronic condition and at risk for another.[103] States can choose which conditions to address from the statutory list of chronic conditions, which includes heart disease. The health home is composed of a team of providers who offer or coordinate both clinical care and community services. A state receives two years of enhanced funding for the health home services, namely comprehensive care management, care coordination, health promotion, comprehensive transitional care/follow-up, patient and family support, and referral to community and social support services.[104] There are 29 health home models currently running in 20 states and DC.[105]

Public health officials and decision-makers interested in leveraging innovative CMS programs for CVD prevention and control activities should engage with their state's Medicaid office to learn more about ongoing and potential future areas of activity. They should also identify any ongoing AHC activities that may be occurring within the state, or consider identifying communities and collaborating on future applications.[106]

Examples:

- **Accountable Health Community Model:** In April 2017, the Innovation Center announced awards to 32 participants in the Assistance and Alignment tracks for AHCs.[107] These tracks, respectively, promote health by making Medicaid and Medicare beneficiaries aware of community resources that meet social needs, and encourage coordinated alignment of clinical and community services.[108] Awardees are primarily universities, health systems, nonprofit organizations, and municipalities.[109] For example, the United Way of Greater Cleveland received a $4.5 million award to integrate community resource navigation specialists in seven clinical sites.[110] Patients at those clinics will be screened for unmet social needs, such as unstable housing, food insecurity, violence, and transportation needs, and referred to appropriate community resources.[111]
- **CMS State Innovation Model:** Oklahoma's State Innovation Model (SIM), awarded in December 2014, applies a multi-payer approach to address obesity, diabetes, hypertension, and tobacco.[112] It focuses on improving population health through payment and service delivery reforms.[113] The state received $2 million for implementation of these efforts.[114]

Other states have leveraged SIMs to provide funding for wellness trusts (discussed earlier). California's SIM includes $60 million in funding for testing grants in their State Innovation Model, CalSIM, between 2014 and 2017.[115,116] These testing grants provide seed funding to Accountable Care Communities for local wellness trusts. Community partners may use this funding to make investments in population health including prevention of CVD, asthma, and diabetes.[117,118] California modeled this program after Massachusetts' wellness trust initiatives.

- **Medicaid Waiver:** As part of its Section 1115 Medicaid waiver program, Nevada received approval to implement the Nevada Comprehensive Care Waiver (NCCW) in 2013.[119] Nevada's waiver provides care management for those with at least one qualifying condition who were previously ineligible for the state's care management services.[120] Qualifying conditions include diabetes, heart disease/coronary artery disease, and obesity.[121] The goal of the NCCW is to "improve the quality of care that high-cost, high-need Nevada Medicaid recipients in [Fee-for-Service] receive through care management and financial incentives such as pay for performance."[122] Nevada seeks to increase the use of preventive services by 10 percent and increase evidence-based pharmacological treatment for individuals with chronic conditions by 10 percent.[123] Such efforts are integral to a robust state CVD prevention and control program.
- **Medicaid Health Home:** Seven states have Medicaid health homes that include heart disease as a qualifying condition for beneficiaries to receive care coordination services. States have flexibility to identify eligible enrollees in different ways. In Iowa, the Medicaid health home model is open to beneficiaries who have at least one and are at risk for at least one more of the following: hypertension, overweight/obesity, heart disease, diabetes, asthma, substance abuse, and mental illness.[124] In Michigan, the beneficiary must have diagnosed depression or anxiety, plus at least one of the following: diabetes, heart disease, hypertension, COPD, or asthma.[125] In all Medicaid health homes, enrollees receive assistance with coordination of their medical care and community services. For people with or at risk of CVD, this offers an opportunity for improved primary and secondary prevention.

Active Transportation Initiatives

Active transportation (AT) is any self-propelled, human-powered mode of transportation such as walking, rolling a wheelchair, or biking, for people across a range of physical ability levels.[126] Upstream initiatives to improve AT have many benefits, including increased physical activity, improved walkability in communities, reduced vehicle miles traveled, reduced emissions, and decreased body mass index.[127] AT initiatives, particularly those that focus on increased walking and biking, have broad benefits for cardiovascular health.[128,129]

According to a 2016 analysis, AT projects are commonly funded through county sales tax measures.[130] Other funding mechanisms include:

- Transportation impact fees;
- Congestion road taxes;
- Gas taxes;
- User fees including fees for vehicle use, tolling, and other similar strategies; and
- Other taxes, such as on tobacco.

Examples:

- **Washington** allows local jurisdictions to impose an impact fee to mitigate the effects of development on state transportation. This fee allowed the City of Seattle to fund Bridging the Gap, a transportation funding initiative that provided $544 million for transportation and maintenance, nearly a quarter of which was allocated for pedestrian and bicycle improvements[131] between 2006 and 2014.[132]
- **Mississippi** passed legislation in 2010 that encourages local school boards to adopt policies allowing shared use of school property outside of school hours.[133] The objective of the law is to encourage school districts to create agreements with local government agencies and community organizations to utilize schools for promoting physical activity. The Department of Education and the Department of Health developed a best practices toolkit for interested school districts, and awarded grant funding to schools and communities to foster the implementation of shared use policies.[134,135]
- **Oregon** operates an Active Transportation division within its Department of Transportation. In 2012, Oregon implemented the Statewide Transportation Improvement Program (STIP) that divides transportation funding into two categories: "Fix-It" and "Enhance."[136] The objective of this initiative is to enable maintenance of existing transportation ("Fix-It"), while ensuring funding is available for the enhancement of sustainable and multimodal transportation.[137] The state works with regional partners to develop STIP priorities and to identify "Enhance" projects to improve active, multimodal transportation across the state. AT initiatives are also funded through several other programs including bicycle and pedestrian programs and Safe Routes to School.[138]

Tobacco Master Settlement

In November 1998, the four largest tobacco companies in the United States entered into an agreement known as the Master Settlement Agreement (MSA) with Attorneys General in 46 states, the District of Columbia, and five U.S. territories.[139,140] In the settlement, the tobacco companies agreed to pay the Settling States approximately $10 billion every year in perpetuity

for the increase in Medicaid and other health related costs due to illnesses caused by cigarette smoking and other tobacco consumption.[141] Each year, independent auditors determine how much the participating tobacco companies must pay each Settling State; in 2016, Settling States received an average of $121.4 million from the MSA, with awards ranging from $1.7 million (Guam) to $1.4 billion (New York State).[142]

While the intent of the MSA is to promote public health and tobacco cessation and prevention,[143] a number of states have elected to securitize at least a portion of their MSA payments—that is, sell the prospect of future payments to investment firms for a lump-sum of money—and use this lump-sum to fund budget shortfalls instead of tobacco prevention and cessation related programming.[144] Securitizing and/or utilizing MSA payments for projects that do not target public health and tobacco cessation and prevention go against the intent of the settlement. States that consider pursuing Master Settlement funds for CVD prevention and control initiatives should be committed to consistently spending MSA payments in furtherance of this goal.

Example:

- **Oregon** began allocating the entirety of its biennial tobacco MSA payments to health care and health related programming in 2015.[145] Of the $158 million Oregon received in 2015, $4.1 million was allocated to tobacco prevention and cessation programs, and another $4.1 million was allocated to Oregon schools to fund physical education programs.[146] Most of the remaining settlement money ($102 million) was allocated to fund the Oregon Health Plan, the state's Medicaid program.

Hospital Community Benefit

Non-profit hospitals must meet certain requirements to maintain their tax-exempt status, including providing benefits to the communities they serve. Currently, about half of U.S. hospitals are non-government, non-profit hospitals.[147] The ACA established several requirements for tax-exempt, non-profit hospitals to ensure that they invest in community health:

- Conduct a community health needs assessment (CHNA) every three years and develop an implementation strategy to address the needs identified by the assessment;
- Adopt and publicize a written financial assistance policy; and
- Limit charges, billing, and debt collection practices for individuals who qualify for financial assistance.[148]

All tax-exempt, non-profit hospitals must report financial information related to their community benefit to the IRS in Schedule H of Form 990.[149] This form standardizes what counts as a community benefit and requires hospitals to provide specific information about their practices related to community benefit.

In addition to federal requirements related to their non-profit status, states often have their own community benefit laws.[150] Some states create requirements around minimum community benefit requirements, community benefit reporting, implementation strategies and community health needs assessments.[151]

States could explore creating community benefit requirements that steer a portion of hospitals' efforts or funding toward initiatives that address CVD.

Examples:

- **New York** requires nonprofit hospitals to develop community benefit plans that include two state-identified priorities. These priorities come from the State Health Improvement Plan (SHIP), called the *Prevention Agenda 2013-2017*, and are selected jointly with input from local health departments.[152] Priorities that nonprofit hospitals may choose from include improving health status and reducing health disparities; promoting healthy and safe environments; preventing chronic disease, HIV/STDs, vaccine-preventable diseases, and healthcare-associated infections; and promoting healthy women, infants, and children.[153] This requirement encourages nonprofit hospitals to intentionally create community benefit plans that address the most critical health issues in their communities. The state also requires nonprofit hospitals to describe strategies that address the selected priorities in a three-year action plan.
- In 2009, **Massachusetts** began requiring nonprofit, acute care hospitals to submit community benefit plans when issuing original hospital licensure.[154] To assist hospitals in developing their community benefit plan, the state released the Attorney General's community benefit guidelines. Although hospitals licensed prior to 2009 are not required to submit community benefit plans, they may voluntarily comply with the Attorney General's community benefit guidelines.[155] The voluntary guidelines encourage hospitals to identify a target population for their community benefit plan based on factors related to geography (a municipality or county), demographic (e.g. uninsured, children, or the elderly), or health status (e.g. people living with HIV or pregnant teens).[156] The guidelines encourage hospitals to conduct a more robust CHNA to identify the most burdensome geographic, demographic, or health status issues in the region.

Agriculture Extension Funding

The National Institute of Food and Agriculture, within the U.S. Department of Agriculture, provides funding to translate agricultural, economic, and societal research into content for public consumption via the Cooperative Extension.[157] Areas of focus for projects funded by the Extension include providing education on the food system (from sustainable farming to nutrition), creating materials on community and home economic development to help families and communities escape the cycle of poverty, and identifying and improving unmet societal needs with community stakeholders. While the origins of the Extension are rural, the current Extension's "non-formal education and learning activities" target rural, suburban, and urban residents.[158]

Extension funding also goes to university faculty members at Land-Grant Universities to develop messaging to communicate the latest research in priority areas, as well as to county-based educators who work with local stakeholders to identify community needs, evaluate educational resources, and set priorities for future research.[159]

Ag Extension funding can be leveraged to support CVD prevention and control goals.

Examples:

- **University of Maryland** uses extension funding to further the state's SNAP Education program, the Food Supplement Nutrition Education Program.[160] This program educates low-income Marylanders on healthy lifestyle and nutrition behaviors to help them make healthier choices and avoid chronic diseases.[161] The University also uses extension funding to increase "the use and affordability of locally grown, fresh food through local market promotion and community gardens."[162] Increasing access to fruits and vegetables, particularly in urban areas that have historically lacked access to these nutrient dense, low calorie foods, is also an important part of encouraging healthy behaviors and preventing CVD.[163]
- **Michigan State University** leverages extension funding to create educational materials about healthy lifestyle choices, including information on maintaining a healthy diet on a budget and nutrition and physical activity recommendations to avoid chronic diseases.[164] The University has also utilized funding to provide interested Michiganders with information on health and healthy lifestyle choices throughout life, from early childhood development[165] to healthy aging.[166] Providing such a comprehensive view of resources enables anyone, regardless of age, to learn more about and commit to healthy behaviors that can prevent CVD.

Coverage of Preventive Services – Private Insurance, Medicaid and Medicare

The ACA requires coverage of certain preventive services under Section 2713 for individuals in most private health insurance plans and in Medicaid expansion plans. While not directly revenue generating, ensuring preventive services are covered under public and private insurance can free up resources that state health departments can use for other core functions.

Section 2713 includes four categories of services:

- Services with an A or B recommendation from the US Preventive Services Task Force (USPSTF),
- Adult and child vaccines recommended by the CDC's Advisory Committee on Immunization Practices (ACIP),
- Preventive services for children endorsed by HHS's Health Resources and Services Administration (HRSA), and
- Preventive services for women endorsed by HRSA.

These categories contain a broad range of services related to primary and secondary CVD prevention. For these and all other preventive services under Section 2713 of ACA, nearly all private issuers in the individual, small, and large group markets must provide coverage without any cost-sharing (deductible, copayment or coinsurance) imposed on the enrollee. In addition, states that expanded Medicaid under the ACA to all adults under 138 percent of the federal poverty level (FPL) must cover these services for those "expansion adults."

In the Medicaid program, states have discretion as to whether to cover all Section 2713 preventive services for traditionally eligible populations (primarily low income children, pregnant women, parents of dependent children, and disabled adults). Under the ACA, states have an incentive to cover all of the Section 2713 preventive services without cost-sharing: if they cover the full list, they receive a one percent increase in the federal contribution to Medicaid for those services.[168]

States should act to make coverage of CVD preventive services as broad as possible in both public insurance (Medicaid and CHIP) and private insurance (employer-based and individual).

Examples:

- **Coverage of preventive services for all Medicaid beneficiaries:** States have the flexibility to cover preventive services for individuals in traditional (non-expansion) Medicaid. Some states, including California,[169] Hawaii,[170] Montana,[171] Nevada,[172] New Hampshire,[173] New Jersey,[174] New York,[175] and Ohio,[176] and others, are covering all of the Section 2713 services, including the CVD-related services listed above, for all of their Medicaid enrollees. Other states should assess their current Medicaid coverage of CVD-related preventive services and fill any current coverage gaps. States should also review their CHIP programs to assess coverage for children's preventive services related to overweight and other CVD risk factors.
- **State insurance mandates for private and state employee coverage:** All states have some mandates regarding what individual, small group, and/or large group private insurance must cover. These mandates can include specific preventive services related to cardiovascular health, such as diabetes services and/or supplies (46 states plus DC[177]); and tobacco cessation medications (e.g. Vermont[178]). HHS has a current listing of state private insurance benefit mandates by state.[179] States can also pass legislative mandates regarding coverage of specific services in state employee health plans; for example, Arkansas requires coverage of treatment for morbid obesity in state and public school employee health benefit plans.[180] Policymakers and stakeholders should identify current state mandates related to CVD preventive services, for both private plans and state employee plans, and identify any gaps that may exist.

Employee Wellness Programs

Like coverage of preventive services under public and private insurance, employee wellness programs are not directly revenue-generating for states. Nevertheless, such programs could potentially be leveraged to help states reserve resources for other priority areas.

With much of the U.S. population employed, and given the substantial effect of health on performance and profitability, employers play a significant role in broad-scale CVD prevention and control. Approximately half of all mid-size to large employers now offer workplace health and wellness programs.[181] However, not all are comprehensive or evidence-based, and as a result, the rates of positive health outcomes from these programs vary widely. In a position statement, AHA outlines seven components of effective and comprehensive workplace wellness programs (CWWPs):

- Health education focused on skill development and lifestyle behavior change,
- Supportive social and physical environments,
- Integration of a workplace program into an organization's benefits,
- Links between health promotion and related programs like employee health and safety,
- Health risk screenings followed by education and counseling,
- Support for lifestyle changes conducive to prevention, and
- Process to assess the effectiveness and efficiency of the CWWP.[182]

The CDC offers a similar checklist for employers to determine whether their health plan is set up to succeed in improving CVD prevention and control.[183] Among its areas of focus are cardiovascular risk identification, risk reduction services, accordance with national guidelines, quality assurance, strategies to eliminate disparities, and other components deemed necessary to assure comprehensive care. More goal-specific toolkits are available from the AHA to plan better office food and beverage options,[184] create a workplace walking program,[185] and prioritize heart-healthy on-site screening tests.[186] Finally, the National Institute of Occupational Health and Safety advocates for a Total Worker Health (TWH) approach—a holistic understanding of the factors that contribute to worker well-being, including those risk factors in the workplace that can contribute to health problems previously considered unrelated to work, such as stress and high blood pressure.[187] Broadly, these recommendations provide a roadmap to guide employers in investing in the creation of healthy workplaces for their employees.

As with any program, rigorous evaluation and monitoring are necessary to maintain quality.[188] States have an important role to play in ensuring these programs perform effectively. Regulation to uphold evidence-based standards for CWWPs may incentivize certain activities or the attainment of certain health outcomes. With the passage of the ACA and its provisions to encourage greater workplace participation in prevention and control efforts came increased scrutiny into employee wellness.[189] Through scorecards or other means of recognition, states that enforce CWWP standards encourage their employers to devote resources to attain better health outcomes for their employees. States can consider promoting and monitoring corporate CWWPs that aim to reduce rates of CVD. Additionally, state governments are large employers in most states and may take their own initiative in developing well designed employee wellness programs.

Examples:

- As part of its CWWP, **Johnson & Johnson**[190] offers resources for its employees to prevent, monitor, and treat cardiovascular issues. Tobacco-free worksites, on-site education, stress-reduction counselling, and exercise incentives such as gym memberships aim to help employees prevent the onset of heart disease. Sponsoring personal health risk assessments helps the company develop further strategies and initiatives that move more of its workforce towards greater overall health, while enabling employees to take greater control of these numbers themselves. As a result of this program, 57 percent more Johnson & Johnson employees are aware of their health stats and status.[191]
- To address the problems associated with obesity and poor diet, **Macy's Naturally Slim**[192] program aims to empower its employees to lose weight and reduce Metabolic Syndrome. Its online nutrition education, coaching, and tracking has helped 3,000 of its employees lose an average of nine pounds.[193] Approximately half of these participants saw reductions in blood pressure, blood glucose, triglycerides, and HDL cholesterol. At the end of Macy's 10-week program, 44 percent of employees who had Metabolic Syndrome at the start of the program had reversed their condition, saving the company over $1 million in health care costs.[194]
- **Humana** sought to improve the well-being of its employees through a multi-pronged program in which employees could track their overall physical and mental health as it changes over time.[195] Biometric screenings show improvements in overall health for 40 percent of participants, including 194,000 pounds collectively lost. Roughly 85 percent of Humana associates actively participate in the program, with 65 percent setting and/or achieving health goals.[196]
- Small companies may offer their employees robust CWWPs as well. Located next to a biking and walking trail in Bethesda, MD, **HonestTea**[197] encourages its forty employees to remain active through one-on-one coaching with a full-time wellness coach, regular workshops and challenges, and an on-site exercise video library. To celebrate the sale of the billionth bottle of HonestTea, the company gave each employee a branded bicycle. Though the company does not formally track ROI or formal health outcomes progress, it considers wellness core to its central mission.
- To encourage its employees to maintain their health, **L.L.Bean**[198] offers on-site fitness, annual biometric screenings, coaching, and other assistance programs, including smoking cessation, weight loss, and diabetes prevention. To encourage participation, health insurance premiums are 20 percent lower (from a 70:30 to 50:50 employee/employer split) for program participants who complete a health risk assessment, screening, and one health coaching session. Among its most successful programs are the $3.00 300-calorie lunches, which add appeal to healthy options.

Foundations

Corporate Foundations and Public-Private Partnerships

In addition to providing funding for cardiovascular health directly, employers can give through company-sponsored foundations. Company-sponsored foundations, also known as corporate foundations, are separate legal entities that maintain close ties with the affiliated company and usually align giving with company interests. Corporate foundations often maintain endowments and rely on contributions from the parent company and subsidiaries to support their giving programs.[199]

Some corporate foundations focus on a host of health issues, while others focus more narrowly on just one or two specific diseases. However, many foundations tend to focus their efforts on major diseases such as CVD.[200] While many corporate foundation initiatives are focused on the county or community level, states could also generate proposals, alone or in partnership with other entities.

Examples:

- **The Blue Shield of California Foundation** is one of the state's largest grant making organizations, with the mission of improving the lives of all Californians by making healthcare accessible for the underserved and ending domestic violence.[201] In February 2017, the Blue Shield of California Foundation launched Act Now, a grant making initiative to support the health and safety of Californians in need.[202] The initiative was created in light of the current social and political environment and "the unknown challenges ahead" faced by the U.S. health system.[203] It aims to protect recent gains in healthcare as well as domestic violence protection, and will award $1.3 million to nine organizations. Specifically, the initiative will focus on:
  - The Medi-Cal expansion (California's Medicaid expansion) population and access to coverage for immigrant populations,
  - Innovation in the healthcare safety net driven by the ACA,
  - Individual and community-centered approaches to health and violence prevention, and
  - Cross-sector approaches to prevent domestic violence.

- **The Medtronic Foundation** aims to improve healthcare access for the underserved and support healthy communities where its employees live and work. While Medtronic has locations in several states, the operational headquarters is in Minnesota, where much of the foundation's efforts are based.[204] The foundation has launched a number of public-private partnerships to enhance CVD prevention and control key activities including HealthRise and the HeartRescue Project. Public-private partnerships can be an effective way to advance CVD related goals and should be considered by a state CVD prevention and control program to the extent possible.
  - **HealthRise** is a program that aims to reduce premature mortality caused by non-communicable diseases such as diabetes and CVD. HealthRise funds community-based grant projects in the U.S. and other countries to improve the detection, management, and control of CVD and diabetes for underserved populations. Currently, HealthRise funds grantees in three Minnesota counties.[205] The foundation conducted a needs assessment in these counties to identify challenges and barriers to care among populations at high risk for CVD and diabetes. The HealthRise program also aligned with the Minnesota Department of Health to coordinate efforts to reduce diabetes and heart disease in the state. HealthRise has engaged the city, county, and state health departments to provide input in its community-based grant funding.[206]
  - **The HeartRescue Project** is a state-based initiative to improve care for individuals who experience out-of-hospital cardiac arrest by improving state cardiac arrest response programs.[207] The HeartRescue Project provides funding to expand and replicate successful city and county out-of-hospital cardiac arrest response programs to statewide levels by engaging multi-sector stakeholders including governments, medical professional societies, local healthcare providers, and patients and their families. To expand best practice models, the project supports several activities including coordinating public and professional training and education on cardiac arrest response; introducing best-practice treatments to the general public, first responders, emergency medical services and hospitals; and implementing a systemic method of measuring performance and outcomes of sudden cardiac arrest. HeartRescue has been implemented in several states including Arizona, Illinois, Michigan, Minnesota, North Carolina, Pennsylvania, and a regional program in the Pacific Northwest based in King County, Washington.[208]
- As part of an ongoing commitment to cardiovascular health, the **AstraZeneca HealthCare Foundation** awards grants to grassroots programs nationwide that serve at-risk or underserved populations to prevent and control CVD. Since 2010, it has awarded nearly $21 million to 49 organizations nationwide. In 2017, five states and D.C. benefitted from this funding, with awardees ranging from a free clinic serving low-income Latinos in Thousand Oaks, CA to a community service organization's anti-obesity campaign in Picayune, MS. These programs each focus on a variety of target communities to address urgent, unmet needs and improve heart health overall.[209]

Family Foundations

Family foundations exist outside of the corporate sphere, but similarly may focus on health issues broadly, including CVD. These foundations are private charitable entities usually intended solely to serve the public good. Maintained by a single family's endowment through generations, these foundations typically grow through investment revenue and are usually intended to exist in perpetuity.

Many family foundations focus on serving specific states or geographic areas; states could consider identifying and partnering with such funders.

Examples:

- **The Robert Wood Johnson Foundation (RWJF)** is one of the best known charitable foundations, offering substantial funding to address a wide range of health issues. The foundation continually accepts proposals for funding of "new and creative approaches to building a Culture of Health," in addition to its targeted grant programs and funding partnerships.[210] Four program and policy issues are the main targets for funding, and each presents an opportunity for states to receive cardiovascular health related funding:
  - Health Systems;
  - Healthy Communities;
  - Health Leadership; and
  - Healthy Children, Healthy Weight.

  Funding is available for various stages of interventions, from exploration to intervention to program evaluation. In addition, RWJF at times issues calls for proposals related to specific health areas.[211]

- **The Lyda Hill Foundation** invests in scientific projects that conduct research, educate, serve, or seek systematic change around areas such as medical care and services. Their grants may go to single organizations or to larger issue-specific efforts to create transformational change at a community level.[212] Among its portfolio of recent grantees are regional medical centers, hospitals, disease research centers, and health policy institutes.[213]

In addition to the foundations referenced above, states also have dedicated health and healthcare foundations that often support public health activities. States should look to these foundations for additional ways to collaborate and identify resources for cardiovascular disease prevention.

Conclusion: Next Steps for State Health Departments and Partners

Given the high cost, both physical and economic, of CVD in the United States, it is imperative that states make a concerted and sustained effort to create, support, and expand CVD prevention and control programming. States should begin by taking the steps below:

1. **Compare current CVD programs to the AHA-recommended infrastructure and activities described in this guide to identify gaps.**
2. **After identifying any gaps, conduct an inventory of how current infrastructure and programs are being funded by reviewing all public and private sources of funding that may be available to the state.**
3. **Determine and build consensus on unmet needs. This effort may involve convening stakeholders, both public and private, who are familiar with current CVD prevention and control programming in the state to assess not only the current CVD prevention and control programming and funding landscape, but also the ability of existing organizations and programs to address areas of greatest priority as determined by the stakeholders.**
4. **Explore the sustainable funding approaches discussed in this document to support existing CVD prevention and control efforts and expand them where necessary.**

The year 2019 will mark the 100th consecutive year that CVD is the leading cause of death among Americans. AHA's Impact Goals outlined by the organization in 2010 – intended to "improve the cardiovascular health of all Americans by 20% while reducing deaths from cardiovascular diseases by 20%" – are achievable within our lifetimes. This document provides a roadmap for states to help achieve these goals.

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