Individuals and Organizations Supporting

Reducing Inequities in Health through Prevention

As of March 17, 2009

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* **Prevention Institute** is a nonprofit, national center dedicated to improving community health and well-being by building momentum for effective primary prevention. The Institute's strong commitment to quality prevention is characterized by community participation and promotion of equitable health outcomes among all social and economic groups. Examples of the Institute's previous work on health equity include developing "Health for All: California's Strategic Approach to Eliminating Racial and Ethnic Health Disparities," and piloting a community resilience tool for the US Office of Minority Health. The Institute writes and trains regularly on the topic and is currently developing a Health Equity Toolkit with support from the Robert Wood Johnson Foundation.

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UPDATED January 23, 2009

Reducing Inequities in Health and Safety through Prevention

"Simply put, in the absence of a radical shift towards prevention and public health, we will not be successful in containing medical costs or improving the health of the American people."[1]

BARACK OBAMA

Advancing health equity to ensure all Americans have the opportunity to lead healthy lives should be a priority. We have an opportunity to do so in a way that alleviates pressure on the health system and saves money. Prevention Institute and the Health Policy Institute at the Joint Center for Political and Economic Studies developed this memo in January '09 to provide background and recommendations for achieving equitable health outcomes for all.*

Barack Obama has stated: "We're going to have some very aggressive initiatives…around things like prevention that reduce costs."[2] We applaud the growing recognition across Congress, within the new Administration, and among the American people that prevention can and must be part of the solution to reform the US health system. Prevention is crucial to improving health and reducing inequities between racial, ethnic, and socioeconomic groups. Strategic investment and implementation of prevention strategies can address the underlying conditions that lead to death, illness, injury, and health inequities in the first place.

Effective prevention initiatives save lives, reduce misery, stimulate the economy, and save money. As the US population is projected to become even more diverse in coming years, achieving a healthy and productive nation will increasingly rely on our ability to keep all Americans healthy. Now is the time to invest significantly in prevention to reduce racial, ethnic, and economic inequities.

This memo offers our suggested strategy for developing a comprehensive, prevention-oriented approach to health equity, building upon related thinking such as that expressed in *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*[3] and *Promoting Health: Intervention Strategies from Social and Behavioral Research*[4] by the Institute of Medicine and *Blueprint for America* by Trust for America's Health,[5] as well as PolicyLink's work on health and place[6] and the Institute for Alternative Future's Disparity Reducing Advances project.[7]

Prevention Institute — Putting prevention at the center of community well-being

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Joint Center HEALTH POLICY INSTITUTE

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The memo begins with a discussion of existing health inequities, and then explains the value of prevention in helping reduce inequities. It includes a description of the ***two steps back*** framework, which identifies and addresses the determinants of health and health inequalities and the value of an investment in prevention. The memo then provides a structured path for change, starting with the highest levels of the federal government and continuing to states and communities. We offer strategies that can be implemented in the short term through vehicles such as the economic stimulus package, as well as those that can be integrated into longer-term action.

Background

Every year, hundreds of thousands of people die in the United States from preventable illnesses and injuries.[8,9] These illnesses and injuries disproportionately impact communities of color and lower wealth communities.[10] Low-income populations and people of color do not experience different injuries and illnesses than the rest of the population; they suffer from the same injuries and illnesses, only more frequently and severely. For example:

- Compared to Whites, American Indians and Alaska Natives are 2.3 times more likely to have diagnosed diabetes, African Americans are 2.2 times more likely, and Latinos are 1.6 times more likely.[11]
- Among African Americans between the ages of 10 and 24, homicide is the leading cause of death. In the same age range, homicide is the second leading cause of death for Hispanics, and the third leading cause of death for American Indians, Alaska Natives, and Asian/Pacific Islanders.[12] Homicide rates among non-Hispanic, African-American males 10-24 years of age (58.3 per 100,000) exceed those of Hispanic males (20.9 per 100,000) and non-Hispanic, White males in the same age group (3.3 per 100,000).[13]
- Native Americans have a motor vehicle death rate that is more than 1.5 times greater than Whites, Latinos, Asian/Pacific Islanders, and African Americans.[14,15]
- Poverty is associated with risk factors for chronic health conditions, and low-income adults report multiple serious health conditions more often than those with higher incomes.[16]
- The average annual incidence of end-stage kidney disease in minority zip codes was nearly twice as high as in non-minority zip codes.[17]
- Premature death rates from cardiovascular disease (i.e., between the ages of 5 and 64) were substantially higher in minority zip codes than in non-minority zip codes.[18]
- Education correlates strongly with health. Among adults over age 25, 5.8% of college graduates, 11% of those with some college, 13.9% of high school graduates, and 25.7% of those with less than a high school education report being in poor or fair health.[19]

Further, data is collected for large statistical groups hiding many of the real inequities that exist in the population. Once the data is disaggregated, a more accurate picture of disparities within ethnic groups emerges. For instance, Asian Americans are not a homogeneous group: nationally, Vietnamese-American women have the highest rates of cervical cancer, with incidence rates estimated at five times higher than White women.[20]

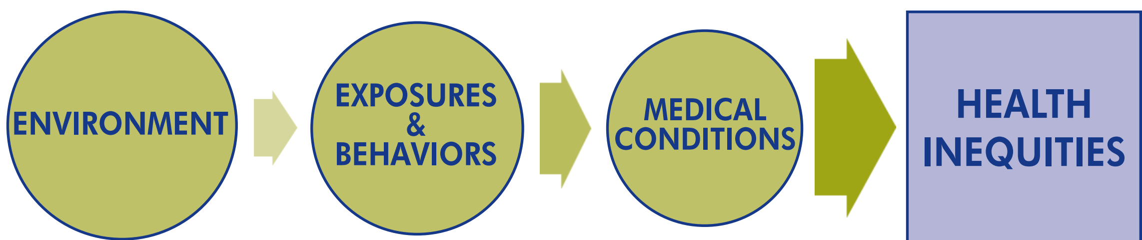
Each year, our nation spends *over two trillion dollars* on health expenditures and approximately 96% of this is expended on medical services—treatment after the onset of illnesses and injuries.[21] Much of the national discussion and research on health disparities has focused on differences in access to quality health care. Once people get sick or injured, affordable quality health care is vital, and some inequities in health outcomes are due to disparities in access to and quality of care, such as those

documented in *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*.[22] Nevertheless, access to health care only accounts for 10% of the variation in morbidity and mortality; other factors that determine health include environments and behaviors.[23] Issues of inequity in medical care are covered elsewhere; this memo focuses on understanding what happens prior to the onset of illness and injury to create inequitable outcomes.

Taking Two Steps Back

The ***two steps back*** framework offers an understanding of what happens prior to the onset of illness and injury. This approach identifies the underlying factors that shape health and affect health equity to ensure that we are not only treating medical conditions but also reducing the likelihood they will occur. The first step back is from disease or injury (e.g., Type II diabetes, asthma) to exposures/behaviors that increase the risk for poor health (e.g., inadequate diet, limited physical activity, exposure to polluted air). The second step back is to the environment (i.e., root factors and community conditions such as lack of food outlets or polluting smokestacks) that shape behaviors and lead to unhealthy exposures.

FIGURE 1. Taking two steps back



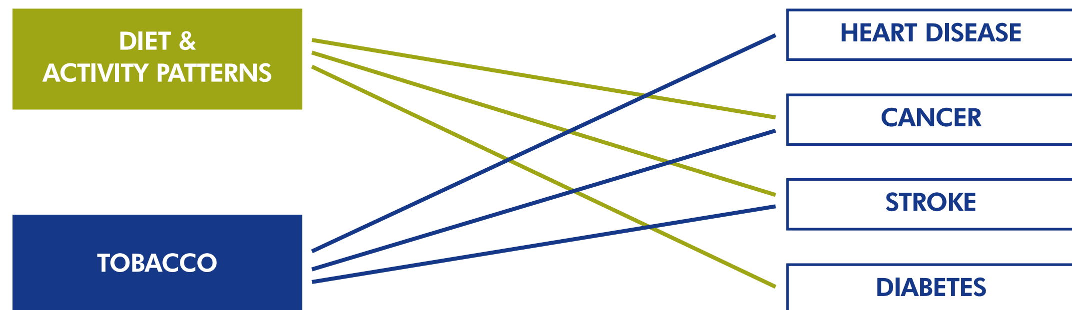
THE FIRST STEP BACK: From Medical Conditions to Exposures and Behaviors

Often, plans to improve health outcomes begin with a focus on identifying and treating specific medical conditions, such as diseases and injuries. The leading causes of death, illness, and injury in the US include heart disease, diabetes, cancer, unintentional injury (e.g., motor vehicle crashes), and infections (e.g., influenza/pneumonia).[24] Overall, these medical conditions are also key sources of inequities across racial, ethnic, and socioeconomic lines. Taking a step back from such medical conditions through an analysis of the contributing factors to these conditions, researchers identified a set of nine behaviors and exposures strongly linked to the major causes of death: tobacco, diet and activity patterns, alcohol, microbial agents, toxic agents, firearms, sexual behavior, motor vehicles, and illicit use of drugs.[25]

Behaviors and exposures are linked to multiple medical diagnoses. For instance, tobacco is associated with a number of health problems including lung cancer, asthma, emphysema, and heart disease. Diet and activity patterns are associated with cardiovascular and heart disease, certain cancers, and diabetes, among other illnesses.

Reducing exposures and unhealthy behaviors has multiple benefits, as it decreases the risk of more than one illness occurring. The most effective way to address exposures and behaviors is to look at and alter the environments in which they are present. This means taking one more step back.

FIGURE 2:
Examples of taking one step back from medical conditions to behaviors and exposures



THE SECOND STEP BACK: From Exposures and Behaviors to the Environment

Focusing on the environment—anything external to individuals shared by members of a community—presents a tremendous opportunity to prevent illness and injury *before* their onset. Exposures and behaviors are shaped by the social, physical, economic, cultural, and community environment. Community conditions—such as air, water, and soil quality; access to healthy food, safe affordable housing, and transit; and access to safe parks—shape health and safety outcomes. In Type II diabetes, for example, one step back reveals diet and activity patterns; a second step back reveals that those patterns are shaped by a lack of access to healthy food and barriers to walkability in particular communities. These community conditions reflect the way that root factors, such as poverty and racism, play out at the community level.

Poverty, racism, and lack of educational and economic opportunities are among the fundamental determinants of poor health, lack of safety, and health inequities. They each contribute to chronic stress and can build upon one another to create a weathering effect, whereby health greatly reflects cumulative experience rather than chronological or developmental age.[26] Chronic stress increases risk for coronary artery disease, stroke, cognitive impairment, substance abuse, anxiety, depression, mood disorders, and accelerated aging and cancer.[27] Further, economic and racial segregation is one of the most powerful forces shaping health in the US. This segregation is not inevitable; it has been established and maintained through government policy and investment and the practices of institutions and organizations.[28] Examples include redlining (wherein low-income neighborhoods and neighborhoods with primarily people of color are identified for discriminatory investment by banks and other lenders, historically by drawing a red line on a map); discriminatory application of GI Bill housing benefits; unequal investment in schools and transportation (leaving low-income communities at an educational and geographic disadvantage, which restricts social and economic mobility and development leading to further concentration of poverty); and judicial rulings such as the Supreme Court's recent ruling (*Parents Involved in Community Schools v. Seattle School District*) that reverses much of Brown v. Board of Education, which ruled that separate was not equal.

Segregated communities are more likely to have limited economic opportunities; a lack of healthy options for food and physical activity; increased presence of environmental hazards; substandard housing; lower performing schools; higher rates of crime, violence, and incarceration; and higher costs for common goods and services (the so-called "poverty tax"). [29] For example:

- Adults living in lower-income communities have worse food environments and higher prevalence of diabetes than adults living in higher-income communities.[30]
- African American and Latino children are more likely to grow up in communities near toxic waste sites compared with White children. The health impacts of many environmental toxins have been well documented.[31]
- Communities with high densities of people of color have significantly fewer physical activity facilities (e.g., youth organizations, parks, public facilities, schools) and decreased facilities have been associated with lower rates of moderate to vigorous physical activity.[32]
- Children living in urban communities who are exposed to violence are more likely than children who have not been exposed to such violence to become victims or perpetrators of the same kind of violence later in life, even when controlling for socioeconomic status.[33]
- People of color and/or low-income individuals have limited access to quality health care, further widening the gap in health outcomes between these communities and White and higher-income groups.[34]
- While residential segregation has improved overall (in that it has declined) since 1960, people of color are increasingly likely, relative to Whites, to live in high-poverty communities.[35]

The definition of the problem drives action and intervention. If the problem is defined as diabetes, then the solution envisioned is likely medical and pharmaceutical intervention targeting the individual. If the problem is defined as community conditions, solutions are more likely to address improving those conditions. Taking two steps back leads to an understanding of the power of the environment in shaping health, safety, and health equity and provides an ability to identify and address the underlying causes of poor health.

A body of work on the underlying, health-shaping conditions that emerge when we take two steps back is growing. These conditions are often called determinants of health or social determinants of health. The World Health Organization defines social determinants of health as "the fundamental structures of social hierarchy and the socially determined conditions these structures create in which people grow, live, work and age."[36] Focusing on these determinants allows for an organized approach to improve health and safety and is of particular importance for the communities identified as having lower health status, in order to achieve health equity.

The determinants of health approach is focused on changing the environments where people live, work, go to school, worship, and play in order to improve health and safety outcomes. This includes national, state, and local policies in addition to community-level actions, such as park development, forming walking clubs, and initiating farmers' markets. THRIVE (Tool for Health and Resilience in Vulnerable Environments), a research-based framework created by Prevention Institute, offers a way to understand determinants of health at the community level.[37] THRIVE includes 13 community health factors grouped into three clusters: people, place, and equitable opportunity (see Table 1). Such an approach has the added benefit of improving the health outlook for *all* segments of the population whether healthy, at risk, or ill—for example, those with diabetes, those at high risk for diabetes, and those who have not shown symptoms or risk factors. In fact,

TABLE 1. Elements of Community Health & Health Equity

PEOPLE: The character and quality of relationships, norms within the community, and community action to change conditions.	**PLACE:** The places where people live, learn, work, worship, and play.	**EQUITABLE OPPORTUNITY:** The opportunity for people of all races and ethnicities to thrive and achieve success, including economically and educationally.
1. Social Networks & Trust	4. What's Sold & How It's Promoted	11. Racial Justice
2. Participation and Willingness to Act for the Common Good	5. Look, Feel & Safety	12. Jobs & Local Ownership
3. Norms/Costumbres	6. Parks & Open Space	13. Education
	7. Getting Around	
	8. Housing	
	9. Air, Water & Soil	
	10. Arts and Culture	

these solutions often have a multiplier effect wherein they improve community environments, which in turn shape behaviors and exposures, offering benefits across a number of health issues.

Communities have long understood the value of population-based prevention solutions and have generated success across a number of health and safety issues. For instance:

- The Community Coalition in South Los Angeles worked to close over 400 liquor stores and documented a 27% reduction in crime and violence within a four-block radius of each closed store, in addition to reducing easy access to alcohol.[38]
- A study in selected census tracts in four sample states (Maryland, Minnesota, Mississippi, North Carolina), examining the relationship between local food environments and dietary choices, found that for each additional supermarket in a census tract, African American residents' fruit and vegetable intake increased by 32%.[39] Increased consumption of healthy food affects a host of illnesses ranging from diabetes and heart disease to arthritis.
- In Boyle Heights, California, community residents worked with local leaders and elected officials to install a rubberized jogging path around the local cemetery. The path is used by over 1,000 walkers and joggers every day.[40] Residents in highly walkable neighborhoods have been shown to engage in approximately 70 more minutes per week of moderate and vigorous physical activity than residents in low-walkable neighborhoods.[41] Achieving daily recommended levels of moderate to vigorous physical activity can reduce the risk of diabetes, heart disease, and many different types of cancer.
- The CeaseFire Chicago community-based public health approach to reducing shootings and killings in cities has shown reductions in shootings and killings ranging from 41% to 73%, and a 100% drop in retaliation murders.[42] Further, cities with more coordination, communication, and attention to preventing violence have achieved lower violence rates than cities without such an approach.[43,44,45]

While communities have demonstrated success, there remains much need for national strategy and coherent efforts to improve the determinants of health and health equity. National strategy and policies can alleviate conditions that contribute to poor health (e.g., concentrated poverty, racial segregation, and lack of educational and economic opportunities) and support communities in their efforts to achieve better outcomes.

The Value of Investing in Prevention

The success of our communities, society, and economy depends on good health. Healthy workers and a healthy emerging workforce are critical for social and economic progress. As a nation we are spending one out of every seven dollars of our Gross Domestic Product on health care, and it is anticipated that the proportion will soon rise to one out of every six dollars.[46,47] Our health expenditures double those of any other nation. This takes a toll on government resources and consequently on taxpayers. When public money is used for medical care, less money is available for other vital services that enable us to thrive, such as education and transportation. By spending almost entirely on the medical end—after people get injured or sick—we are not using our money wisely.[48] By directing economic stimulus investments to efforts that also support positive health, safety, and community outcomes, we can have a greater positive impact on the health of the economy.

Community-level prevention not only saves lives and suffering, but also saves money. An economic analysis revealed that investing even the modest amount of $10 per person in community-level initiatives aimed at reducing tobacco consumption, improving nutrition, and increasing physical activity results in a return on investment within two years and an estimated annual savings of over $15 billion nationally within five years.[49] Each year thereafter, the 5 to 1 return on investment is projected to continue—ideal for a stimulus package as it creates jobs and stimulates the economy now and saves when "the bill comes due" later. The savings from an investment in prevention in disenfranchised communities should be even greater because they experience the greatest burden of ill health. In addition to this chronic disease analysis, studies reveal that other health-related investments also yield a significant return. For instance, $1 invested in breastfeeding support by employers results in $3 in reduced absenteeism and health care costs for mothers and babies and improved productivity; $1 invested in lead abatement in public housing returns $2 in reduced medical and special education costs and increased productivity; and $1 invested in workplace safety measures returns $4 to $6 in reduced illnesses, injuries, and fatalities.[50,51] Community-level prevention must be supported by national policies, including those that alter the fundamental determinants of health.

RECOMMENDATIONS
to Promote Prevention and Health Equity

The new administration can simultaneously advance the goals of health equity, individual and community health and well-being, and economic growth. The following recommendations offer a structured path to reach these goals.

1. **Develop a national strategy to promote health equity across racial, ethnic, and socioeconomic lines, with specific attention to preventing injury and illness in the first place.** While sporadic attention has been paid to inequities (mostly in terms of medical services) a broad and coherent plan to end them has not been advanced. A "Marshall Plan" for the nation's health should be an important element of a new national healthcare reform effort. Such a plan could improve health and safety while reducing costs in the healthcare sys-

tem for treatment and disease management. The strategy should emphasize effective, population-based prevention and take into account the appropriate government structures[52] and policies to support such an approach. Policy makers, leading researchers, national organizations, businesses and unions, and community groups concerned with health equity should be involved. The Surgeon General and/or the Secretary of Health and Human Services (HHS) should be given the resources, responsibility, and authority to develop the strategy.

2. Establish high-level leadership at the White House and the department level to serve as a focal point for prevention strategy and health equity and to ensure collaboration between government agencies.[53] High-level leadership can hold people and agencies accountable for addressing determinants of health and promoting health equity, insist that efforts are better coordinated, and ensure that multiple agencies within the federal government are part of the solution.

2.1. Ensure that all federal agencies screen their expenditures, policies, and regulations for health, safety, and health equity impact. HHS could issue guidelines for advancing health equity, and screening for such an impact should be mandated at the highest levels of government. The determinants of health and health equity are broad and span multiple agencies, such as education, trade and commerce, labor, transportation, housing, environmental protection, and agriculture. Their policies and decisions alter determinants of health (e.g., poverty, segregation, educational and economic opportunities) affecting community conditions directly and indirectly via their directives to states. Further, many federal regulations and policies disproportionately impact low-income communities and communities of color: policies on diesel exhaust particularly affect low-income communities near interstate highways. Alternatively, policies could have a positive impact on health outcomes and health equity. While the HHS Secretary might take the lead, it is critical to have White House support to ensure that every relevant agency has a role in achieving health equity.

3. Build the capacity of federal, state, and local health agencies to lead population-based prevention and health equity work. Advancing a national agenda to promote health equity requires a health infrastructure that is prepared to provide leadership at all levels of government. HHS can ensure that attention to community prevention and health equity is robust, consistent, and coordinated across all health agencies, including the minority health efforts at Centers for Disease Control and Prevention (CDC), National Institutes of Health (NIH), and HHS, and that a system of accountability is established. Action should be taken to establish standards of practice and the necessary skill set throughout the health system in the following ways:

3.1. Establish a dedicated funding source for population-based prevention and health equity. In order to support the recommendations laid out in this document, resources for population-based prevention and health equity should be significantly expanded. Other reports have identified potential funding mechanisms.[54] The funding should be flexible to enable state and local health departments to promote comprehensive prevention and health equity solutions that reflect community priorities.

3.2. Establish a strong system of training and skill-building for federal, state, and local government staff to support and engage in population-based prevention and health equity work,[55] and support training and deployment of a diverse public health work-

force. Training for government staff would introduce the methodology and importance of population-based prevention and health equity; how to make it effective; how to develop solutions that advance health, safety and health equity; and how to work with multiple disciplines to ensure success. In public health, a cadre of professional organizers, skilled in the principles of citizen leadership and public work, should be established to plan and pursue an action agenda for neighborhood health improvement.

3.3. **Educate the next generation of health leaders and practitioners on population-based prevention and health equity**. With predictions of up to 20% of employees retiring in agencies such as the CDC, there is both a great need and an emerging opportunity to create a paradigm of health that is more than illness care. Students in medical and nursing schools, health policy programs, and public health and social work graduate programs need to understand effective prevention practice and policy, health equity, and how to effectively engage interdisciplinary partnerships in solutions. Their education and training should be supported by internships and other opportunities to practice with groups already doing this work.

3.4. **Elevate the importance of a population-based prevention and health equity approach at the Centers for Disease Control and Prevention.** Building on the work of offices such as the CDC's Office of Minority Health and other efforts to address social determinants of health, a cross-agency approach should be enhanced to create efficiency and to maximize new opportunities in science and practice to address determinants of health and health equity. Such an approach was recommended by a National Expert Panel on Social Determinants of Health, convened in Atlanta in May 2008. Cross-agency coordination, leadership, and capacity building should be expanded both internally and with external partners.

3.5. **Support states in developing action plans for population-based prevention and health equity.** Under the leadership of their health agencies, states should develop plans that delineate an effective methodology for improving health equity through population-based prevention. States should be supported through technical assistance to develop effective plans and peer-support networks.

4. **Expand funding for community-based initiatives.** Community-based, population-level prevention activities have demonstrated success.[56] Funding such initiatives should foster healthy, safe environments and engage community residents and multiple sectors. Current federal funding streams should be amended to enable more local flexibility and should encourage collaboration. Existing investments—such as Kellogg's Place Matters; The California Endowment's Healthy Eating Active Communities; Kaiser Permanente's Healthy Eating Active Living; the Robert Wood Johnson Foundation's Active Living by Design; and CDC's Healthy Communities, REACH (Racial and Ethnic Approaches to Community Health across the US), and the UNITY (Urban Networks to Increase Thriving Youth through Violence Prevention) initiative—can serve as building blocks and can be expanded. At least some of the resources for expanding these investments should come from redressing the current situation in which states that contribute the largest amount of federal taxes (often those with large cities having higher densities of low-income populations) receive less federal investment than states that contribute fewer federal taxes annually.[57] Another source could be to repeal the strict federal requirement to verify residency for participation in federal programs. Funds expended conducting verification could instead be invested in community-based initiatives.

5. Provide technical assistance and tools to support community-level efforts to address determinants of health and reduce disparities. Communities can use tools and technical assistance in support of their own efforts to transform the conditions that shape health and safety. Specific actions include:

5.1. Support health equity institutes and technical assistance centers. Intensive training and technical assistance is needed to support work on the ground in communities. Specifically, expand CDC's Health Equity Action Institute to include more interested participants and enable them to meet with greater frequency. The lessons from successful efforts should be synthesized and disseminated. Also, establish a national technical assistance center to support population-based prevention and health equity. Purposes of the technical assistance center would be to 1) strengthen the capacity of the state, local, and tribal leadership to advance health equity using a determinants approach; 2) engage and support the public health workforce to work with nontraditional public health partners; 3) leverage and strengthen existing learning/communities of practice models to engage traditional and nontraditional partners in structured learning experiences that enhance multi-level and multi-sector collaboration;[58] and 4) refine a determinants of health and health equity methodology and broadly disseminate what works.

5.2. Support communities in the use of THRIVE (Tool for Health and Resilience in Vulnerable Environments) to help close the health gap. THRIVE was developed and piloted with support from the US Office of Minority Health to close the health gap in communities.[59,60] A national expert panel considered the community resilience assessment tool to be complete and stated that it has immense value and utility in diverse communities. Panel members emphasized the need to distribute the tool widely, and to see it implemented effectively (bringing it to scale).

5.3. Expand the use and application of findings from simulation tools to plan and evaluate health system change. Simulation models and "serious games" can be used by diverse stakeholders as they craft strategies for local and large-scale health system change. Many valuable tools exist (e.g., CDC's Health Protection Game; NIH's Models of Infectious Disease Agent Study (MIDAS); the jointly-funded CDC-NIH System Dynamics Model for Preventing and Managing Chronic Diseases; Praxis Project's Tool for Developing an Equity Impact Statement; Institute for Alternative Future's scenarios) and should be used to engage a much wider range of stakeholders in effective prevention planning. A national clearinghouse should be established to serve as a resource center, training institute, and data repository for this rapidly evolving area of applied public health science.

6. Support the development of national, state, and local data systems to inform community efforts, foster accountability, and build a stronger understanding of a population-based prevention and health equity approach.

6.1. Support development of the Community Health Status Indicators (CHSI) system. CHSI—a collaboration between the CDC, the Health Resources and Services Administration, the National Library of Medicine, and private partners—is a web-based resource that disaggregates nine federal data systems to provide county-level reports for all US counties. Further developing the capacity of CHSI to monitor health equity at the local level would not only support local planning but also provide

states with information to inform their efforts. Funding is needed to expand CHSI capacity to focus on health equity and to develop methods that allow further disaggregation of the data to sub-county levels.[61]

6.2. Support the ability of CDC surveillance systems to monitor state, individual, and community-level data on determinants of health and health equity (e.g., poverty, segregation, educational and economic opportunities). Currently, most systems are limited to demographic analyses of the relationship between, for example, race/ethnicity and health. There is a need to understand how issues such as access to healthy food at the individual and community level impact health, or how civic engagement or community participation contribute to health and safety. Efforts to develop new variables that can monitor social conditions that contribute to these outcomes should be advanced.

6.3. Advance efforts to disaggregate data on health inequities. There is a need for greater disaggregation of data to reflect ethnic differences within the broad categories of race and ethnicity (particularly among Latino and Asian/Pacific Islander populations), as well as income levels, and duration of residence in the United States. With current data sets, general conclusions across categories fail to reflect the realities of specific groups. Disaggregated data brings us closer to understanding health inequities and developing appropriate strategic responses.

7. Expand research on and significantly expand the amount and proportion of federal research dollars for population-based prevention and health equity with an emphasis on translating research into targeted, community specific strategies. This includes evaluation of policy changes and community-based strategies to understand what is most effective and under what conditions and circumstances. Researchers have identified many of the leading community factors that affect health and the relationship between these factors. This work can be accelerated to provide a thorough understanding of the pathways between social and physical environments and health and inform policy and practice.

7.1. Support Prevention Research Centers (PRCs) and enhance their capacity to focus on population-based prevention and health equity. With their emphasis on Community-Based Participatory Research (CBPR), the CDC's PRCs are well-positioned to advance research on addressing determinants of health and health equity at the community level. Engaging community members through CBPR serves to build local capacity, ensures that findings accurately reflect local conditions, and increases the likelihood of broad-based local support for implementation. Strengthening the mandate and enhancing the capacity of the PRCs to research and evaluate population-based prevention and health equity strategies would fill knowledge gaps both on the relationship of multiple determinants and community factors and the effectiveness of interventions and programs.

7.2. Apply the new economic models on community-level prevention[62] to low-income communities and communities of color to understand the return on investment. Newly emerging economic models have demonstrated significant returns on investment in community-level prevention. The savings from an investment in prevention might be even greater in disenfranchised communities because they experience the greatest health burden. Applying these economic models in communities that experience the greatest

health inequities will help build an understanding about the value of prevention investments and can inform policy and funding decisions.

7.3. Commission the Institute of Medicine to conduct studies on the health consequences of racism and poverty. With a growing understanding that racism and poverty affect health outcomes, having a comprehensive, scientific review of the literature and public policies would reveal a greater understanding about what is known and the most promising avenues for policy, research, and community practice to minimize negative health consequences.

7.4. Study policies and programs that reduce economic and racial/ethnic residential segregation. Evaluation to date has demonstrated promising strategies to reverse residential segregation. More research is needed to help understand what policies and practices are most effective at reducing segregation and to what extent. A piece of this work includes a comprehensive review of policies and practices that contribute to segregation.

The legacy of discrimination —and current incidents of discrimination, while less overt than in the past— are real and must be addressed.... [The path to a more perfect union] requires all Americans to realize that your dreams do not have to come at the expense of my dreams; that investing in the health, welfare, and education of black and brown and white children will ultimately help all of America prosper.[64]

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Conclusion: The Imperative of Achieving Health Equity

A coherent strategy for achieving health equity is desperately needed. As the Institute of Medicine states, "All members of a community are affected by the poor health status of its least healthy members."[63] Poor health is not only a burden to those affected. It overburdens the health care infrastructure, increases the spread of infectious diseases, and wastes health care resources and national wealth. Poor health jeopardizes our independence, responsibility, dignity, and self-determination. Good health for all is precious; it enables us to be productive, learn, and build on opportunities. A significant health gap exists in our nation, and it harms us all. We know the strategies that will be effective in closing it. Now is the time to implement them.

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