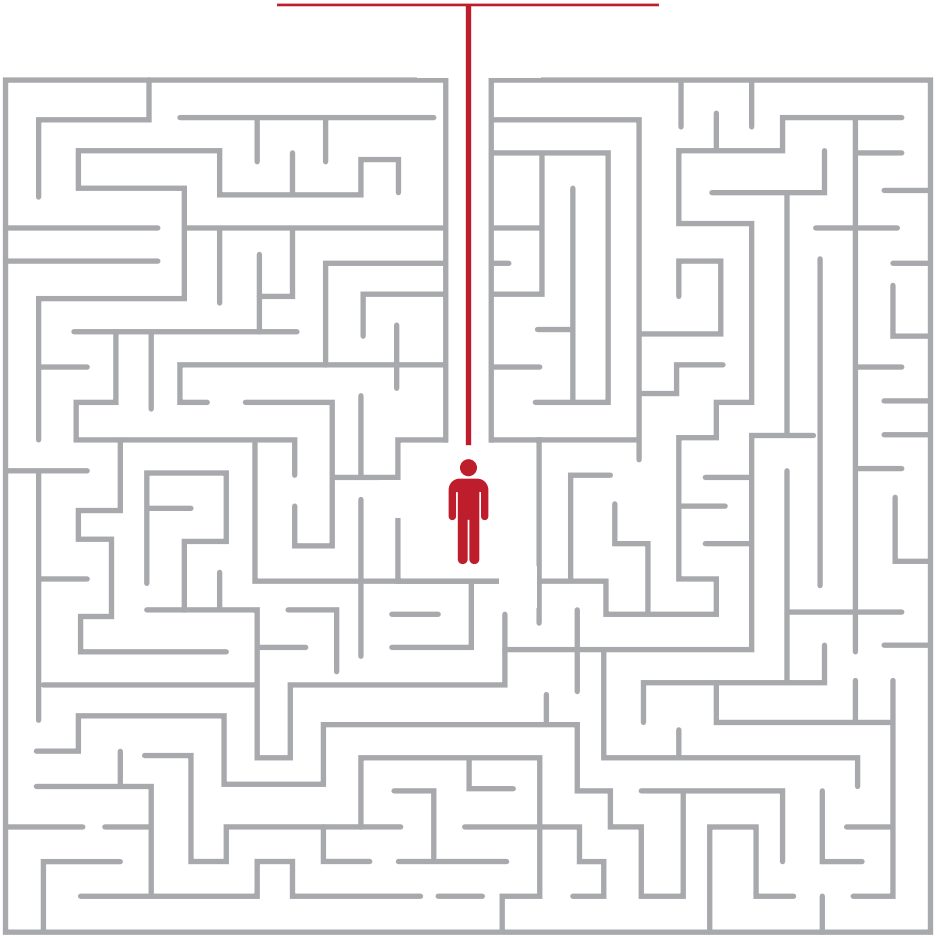
The Health Care Delivery System

A Blueprint for Reform



Center for American Progress and the Institute on Medicine as a Profession

CHAPTER 6

An Agenda to Improve the Health of the Public

Steven A. Schroeder, M.D.
Dora L. Hughes, M.D., M.P.H.

Health policy discussions, ironically, seldom focus on health itself. Rather, the challenges of how to expand health insurance coverage and curtail runaway health care costs—both issues with an immediate effect on everyday lives—dominate the health policy agenda. Yet even if access and the cost problems are resolved, they may pale in comparison to those potentially gained through broader population health initiatives. Population health can be defined as the health outcomes of a group of individuals, including the distribution of such outcomes within the group. The field of population health includes study of health outcomes, patterns of health determinants, and policies and interventions that link these two.[1]

Behavior, social circumstance, and the environment have a powerful influence on health, and tackling these determinants would help prevent or delay the onset of disease and disease complications. The United States performs poorly compared to other countries when it comes to achieving health for its citizens, but the new administration can lead the federal government in reforming the health care delivery system so that it improves the health status of all and makes the U.S. health care system more competitive.

The United States ranks near the bottom in measurements of health when compared with other countries of comparable economic status. Among the 30 developed nations that make up the Organization for Eco-

KEY POLICY RECOMMENDATIONS

- Set national goals of improved health performance, both absolutely and in comparison with other developed nations, and fixing organizational responsibility and authority for achieving those goals.
- Enacting comprehensive tobacco control policies, including a federal smoke-free policy, increased tobacco taxes, warning labels, countermarketing strategies, and smoking cessation efforts.
- Reducing obesity through policies such as updating nutritional standards for school lunches, expanding social marketing, eliminating "food desserts" and promoting physical activity through workplaces and schools (e.g., increased funding and quality of physical education).

nomic Cooperation and Development, or OECD, the United States ranks close to the top in per capita Gross Domestic Product, but anywhere from 19th to 25th on standard health indices. Even less prosperous countries outside the OECD have better health records than the United States. The United States ranked 46th in life expectancy from birth and 42nd in infant mortality among the 192 nations for which 2004 data are available.[2]

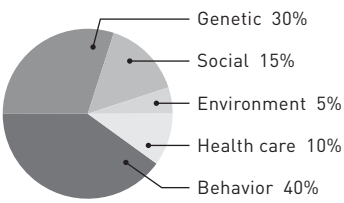
The public, health policy experts, and health care professionals complacently accept these unfavorable comparisons. This complacency may reflect perceptions that the United States' poor ranking is caused by its ethnically heterogeneous population compared with the nations at the top of the rankings such as Japan, Switzerland, and the Scandinavian countries. Indeed, large disparities in health status do exist within the United States—by geographic region, race and ethnicity, and class.[3] Yet even when comparisons are limited to white Americans, our performance is dismal.

DETERMINANTS OF HEALTH

- Genetic predisposition
- Behavioral patterns
- Environmental exposure
- Social circumstances
- Health care

Source: McGinnis JM, Russo PG, Knickman JR, *Heath Affairs*, April 2002.

PROPORTIONS (Premature Mortality)



National and local policies, programs, and funding allocations that support health—not just health care—must be realigned and prioritized in order to meaningfully improve population health. This process can be informed by examining the factors underlying the health status measure "life expectancy from birth" which incorporates the main causes of premature death.[4] These reside in five domains: behavioral patterns, social circumstances, environmental exposures, health care, and genetics. This chapter will focus on behavioral patterns, social circumstances, and environmental exposures, which arguably have the greatest effect on population health.

Boundaries pose a major challenge to the implementation of policies across each of these domains. Many of the roads to health improvement travel outside of the traditional components of a health care delivery system such as work, school, and communities. The current congressional committee structure and executive branch organization are not optimally constructed to address these issues in a health context. The new administration will likely need to restructure responsibility for public health within the federal government in order to centralize knowledge and resources around population health improvement.

THE FUTURE OF POPULATION HEALTH

Our vision for a healthy nation is one in which all Americans are enabled and empowered to achieve their full health potential, through policies that effectively address traditional health concerns as well as behavioral, environmental, and socioeconomic health determinants. This vision will require the new administration to articulate health improvement—both absolute and relative—as a national goal, and then pursue that goal as relentlessly as we have pursued the war on cancer or putting men on the moon.

Two efforts will be key to realizing this vision of optimal health: expanding and accelerating population health interventions that reduce behavioral causes of death such as smoking and obesity; and prioritizing information gathering and policy development to mitigate health disparities, particularly in low socioeconomic and racial and ethnic minority populations. But neither will be possible without strong leadership from the new administration.

Leadership

Pathways to improved national health status do not depend primarily on improving either access to medical care or the quality of that care, although both would yield important benefits, particularly for those who do not currently have access to high-quality health care. Population health improvements will come first from asserting and exercising leadership to ensure that improved health status is the central goal of American health policy. Derivative from that goal would be a greater understanding of the pathways to improved health as well as the development and implementation of the policies illuminated by those pathways.

Since the 1970s, the United States has engaged in a regular exercise—the Healthy People Project—to set decade-long targets for health improvement. The most recent report, Healthy People 2010, was, like its predecessors, the product of an extensive national consultation involving widespread public meetings, the input of a broad range of health professionals, and replication at the state and regional levels.

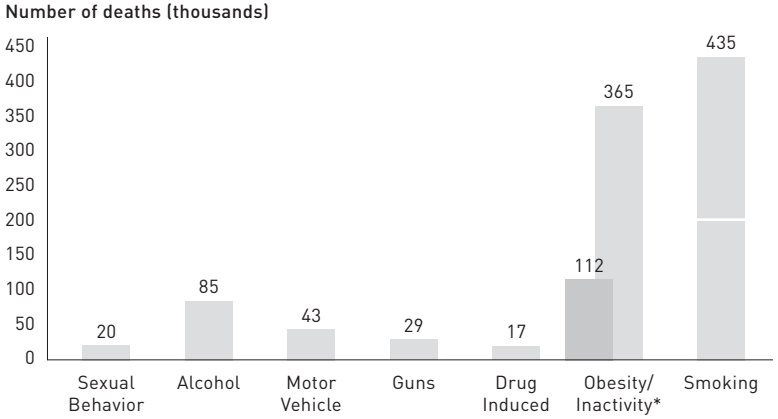
The Health People Project is a well-intended and well-structured effort that, for the most part, has admirable goals. But it falls short in three major respects. It is so comprehensive—comprising 28 focus areas and 467 objectives—that it is overwhelming in volume. It has very little visibility outside the public health community. And most importantly, no single health agency or official is vested with the responsibility for attaining those goals and monitoring progress toward their achievement. No one can be held accountable for failure to realize the Health People 2010 goals for the simple reason that responsibility for attaining them is too diffuse.

The new administration will have to reinvigorate its investment in health improvement by asserting leadership on population health at all levels of the government. A key component of this leadership will be centralizing responsibility and accountability for reaching national goals in one entity.

Behavioral patterns

The single greatest opportunity to improve health and reduce premature mortality is to change personal behavior, which accounts for 40 percent of all premature deaths in the United States. The seven most important

BEHAVIORAL CAUSES OF ANNUAL DEATHS IN THE UNITED STATES, 2000



* The two numbers reflect widely differing estimates by the CDC.

Source: Mokdad, et al., *JAMA*, 2004, 291: 1238–1245; Mokdad, et al., *JAMA*, 2005, 293: 293; KM Flegal, BI Graubard, DF Williamson, and MH Gail, "Excess Deaths Associated with Underweight, Overweight, and Obesity," *JAMA*, 2005, 293: 1861.

behavioral causes of annual deaths in the United States are tobacco use, obesity and physical inactivity, alcohol, motor vehicles, guns, sexually transmitted diseases, and drug abuse. Smoking and obesity constitute the two largest behavioral threats to the health of the public and thus represent the two best opportunities for population health improvement.

Given the tremendous health burden of tobacco use, the ultimate population health goal would be to make tobacco use so de-normalized that, over time, the United States would evolve into a smoke-free nation. The fact that tobacco use rates are declining is one of the major health success stories of the past century, along with sanitation, immunizations, and the discovery of antibiotics. The reported prevalence of adult smoking declined to a modern low of 19.7 percent for the first six months of 2007.[5]

Obesity and physical inactivity are, together, the second largest contributor to behavioral causes of premature death, and have been increasing at alarming rates. Some advocates have wondered whether the same strategies that have worked in lowering the prevalence of smoking could be applied to obesity. Two major contrasts exist, however, between the challenges posed by smoking and obesity. The tobacco industry's duplicity as

yet has no counterpart in agribusiness. And there is no real analogue in obesity for the way that nonsmokers mobilized against public smoking in response to the danger of second-hand exposure. Fortunately, the issue of obesity continues to generate significant attention and activity, and support has grown for reforms in schools, worksites, and communities that can help Americans adopt healthier lifestyles.

The new administration should prioritize building and expanding upon these smoking and obesity efforts. Better health across the population will require comprehensive tobacco policy reform that helps Americans stop smoking and removes the threat of second-hand smoke, as well as new initiatives to improve American diets and increase physical activity.

Social circumstances

The second most important remediable determinant of premature death, after behavioral causes, is found in social circumstances. This includes direct effects of social circumstances such as social isolation, as well as indirect effects whereby lower social class—measured by income, wealth, education, occupation, and neighborhood—impairs health.

The cause that receives the most attention is the obvious fact that low-income Americans often receive less medical care and poorer quality care by dint of lower rates of health insurance coverage and diminished access to high-quality health care providers. A second indirect effect operates through health behaviors, since those with lower education and income are less able to engage in health-promoting behaviors such as eating fresh foods or exercising regularly. And a third operates through differential exposure to pollution and toxic substances. But an unappreciated reality is that people enjoy better health at every step up the socioeconomic ladder, even when correcting for such factors as access to care and behavioral risk factors such as smoking, obesity, and alcohol abuse.[6]

We are beginning to understand more fully the connection between social circumstances and health disparities, but much remains to be learned. Absolute poverty creates clear food and housing instability that in turn jeopardizes health. Yet relative poverty most disadvantages the health of the poor. African-American men in Harlem, for example, have a shorter life expectancy than men in Bangladesh despite the fact that the

latter are poorer on an absolute level than the former. The United States is not unique in this regard. Countries with large gaps between the wealthy and the poor generally have worse health status than those with a similar average income, but smaller disparities in wealth. The same pattern also holds within the United States in that states with smaller wealth disparities have healthier populations, controlling for mean income.

This phenomenon may exist because countries (and states) with greater income disparities may invest less in common "goods" such as libraries, public schools, and parks than those with more equal distribution of income. There may also be more conflict and less social integration in less equal societies, and individuals who are relatively disadvantaged may feel less able to control the circumstances of daily life. The lower down the socioeconomic ladder, the more likely a person is to live a life with high stress and low control. Individual stress coping mechanisms are activated in such instances; while these are helpful in the short run, they exert long-term costs in the form of accelerated cellular aging and higher risk factors for a number of illnesses, including cardiovascular disease and diabetes.

Racial and ethnic minority populations are particularly affected by "weathering," or premature aging leading to early development of illness and death. Indeed, compared to white Americans, minority Americans experience significantly higher rates of disease, including diabetes, stroke, asthma, and HIV/AIDS; lower levels of health care quality; and worse health outcomes.[7] Differences in socioeconomic status play a critical role in the development of these health disparities.

Minority Americans are disproportionately more likely to have a lower socioeconomic status, which translates into reduced health care access and quality, and higher risk for negative health behaviors such as obesity and physical inactivity. Yet, it is noteworthy that racial and ethnic minority disparities in health and health care persist even at equivalent levels of socioeconomic status.[8] As such, although federal efforts to improve socioeconomic status will greatly benefit the health of minority populations, studies are needed to increase understanding of the complex interaction between race and socioeconomic status and its effect on health. Additional research is also needed to identify effective interventions that can mitigate the damaging effects of racism on health.

POLICY RECOMMENDATIONS

Leadership

The federal government should assign accountability and responsibility for setting and attaining population health goals at all levels of the government—federal, state, and local—to a single entity, which could be an agency, office, or individual. This entity would be charged with periodic assessment of absolute and relative performance, with ample opportunities for "health competition," or the opportunity for localities, states, and even nations to improve on health status measures such as life expectancy and smoking prevalence by trying to improve on a previous record or ranking.

The new entity's responsibilities would include identifying strategies to achieve health goals, budgeting appropriate resources at each level, and expanding the concept of health improvement beyond traditional health silos. This entity would also have to have the authority and political independence to engage entrenched and formidable groups such as the tobacco lobby and agribusiness to ensure that federal policies for improving health clearly take precedence over these special interests.

The Secretary of Health and Human Services or the Surgeon General could, in principle, be assigned responsibility for population health improvement. The Centers for Disease Control could, as the nation's primary public health agency, assume such responsibility. In fact, there are multiple ways that this authority and accountability could be vested in a single entity. The incoming administration or the next Congress could make this decision, or they could create a "Health of the Public" commission that would be charged with exploring the various options. If a commission leads this effort, there would have to be mechanisms to translate recommendations into action, complete with appropriate authorities, structures, and financing.

Vesting leadership at the federal level would only be a first step. Realizing the vision of establishing accountability for population health will require multiple individual strategies plus the capacity to coordinate them, monitor progress and make adjustments when necessary, and engage in continued surveillance of health status and those factors that endanger as well as promote health.

Behavioral patterns

TOBACCO USE

The next administration should strengthen effective existing anti-tobacco policies and interventions and apply them more vigorously. A first step should be to work with Congress to enact federal legislation to make all public facilities smoke-free, following the example of increasing numbers of European countries such as the United Kingdom, Ireland, and Italy. Already 24 states have stringent smoke-free ordinances, and over 2,000 individual cities and communities are smoke-free. That still leaves most of the nation lacking the strongest protection against the proven carcinogenic and cardiac risk factors contained in second-hand tobacco smoke.

The federal government should also raise the price of tobacco products to decrease their usage. The price elasticity of demand for tobacco products is about negative 0.4, which means that for every 10 percent increase in the price of a pack of cigarettes, there will be a 4 percent decline in consumption. Over the past seven years, 82 separate state tax increases have been enacted, but the federal tax has remained at 39 cents per pack, despite numerous attempts to increase it.

Raising tobacco taxes and expanding the number of smoke-free areas—either locally or nationally—are the two most powerful tobacco control measures currently known. Yet a number of other strategies would also be effective. Congress could strengthen the currently anemic warning labels on cigarette packs, as has occurred in multiple countries, such as Australia and Canada. The new administration could promote and expand counter-marketing initiatives, such as the American Legacy Foundation's truth® campaign, which has been shown to reduce initiation of youth smoking.

The federal government could also increase support for smoking cessation services to help smokers quit. Reforms are needed to improve coverage of smoking cessation drugs under state Medicaid plans; fund more aggressive cessation programs through the Veterans Health Administration and Federally Qualified Community Health Centers, both of which serve at-risk populations; and expand marketing for the national toll free telephone quitline (1-800-QUITNOW), which despite its meager marketing budget, has still logged over a million calls.

Research on more effective interventions to reduce smoking will also be needed. The first step would be to increase funding for tobacco control

research at the National Institutes of Health. Given the degree of health damage caused by tobacco use, NIH investment in tobacco research is disproportionately small, especially regarding tobacco cessation. It would be particularly useful to understand the connection between smoking and mental health and substance abuse. It is estimated that persons with mental illness and/or substance abuse account for nearly half of the 435,000 annual deaths from tobacco in the United States and that they consume 44 percent of the cigarettes sold in this country.[9]

OBESITY AND PHYSICAL INACTIVITY

Considerable effort has already been focused on improving dietary intake, and promoting healthier diets in school settings should remain an important area of focus for the new administration. The U.S. Department of Agriculture should update nutritional standards for school lunches, and the president should expand the department's authority over "alternative foods"—such as food and beverage items sold in vending machines, sold during or after schools separately from, and sometimes in competition with, the school lunch program. The Secretary of Agriculture could be charged with developing and implementing standards for alternative foods as well school lunches.

Even outside of school settings, the federal government can implement community-level interventions to change children's diets. The CDC could, for example, conduct general media or social marketing campaigns with anti-obesity messages to educate families about the obesity epidemic. This federal effort would be augmented by more aggressive efforts by the Federal Trade Commission, which recently examined the practice of marketing unhealthy food products to young children.[10] The president could further direct the FTC to develop and enforce standards for marketing to children, building upon the voluntary efforts by the Alliance for a Healthier Generation and other groups.

For the general population, obesity prevention initiatives targeting diet generally attempt to increase access to healthy foods and increase transparency of nutritional content. The federal government should expand these initiatives by providing grants through the Department of Agriculture to tackle "food deserts" by encouraging entry of new grocery stores, farmers markets, and cooperatives into underserved neighborhoods. Zoning ordinances and financial incentives are being used to address this issue in cer-

tain states and locales.[11] Supporting these activities through earmarking small business tax credits could prove fruitful as well.

Congress and the next administration can also direct the Food and Drug Administration to improve current nutritional labeling of foods and expand the scope of foods that it labels. FDA has begun to study how current labels could be modified to improve label literacy and dietary choices by everyday Americans. The FDA should accelerate efforts in this regard. A number of advocates have also recommended that FDA's authority over nutrition labeling be extended to encompass meals sold in chain restaurants and foods sold in vending machines. If Congress legislated such authority, the FDA could propose regulations that would require large chains to publish caloric and fat content of food items on menus or menu boards, which could positively influence food choices at the point of service. A few states and localities have already introduced legislation to do just that, although the restaurant industry opposes such measures.

Experts have also noted that efforts to encourage better food selection must include restructuring agricultural subsidies to promote greater production and consumption of healthier food products. Specific policies would include altering the agricultural legislation that subsidizes foods to incentivize the growth of fruit and vegetables. Imposing selective taxes and rebates on different food products may be another viable option.

The federal government will have to combine policy efforts to promote healthier foods with initiatives that enable and encourage physical activity. Policies to enhance physical activity span school, worksite, and community settings. The major policy option for schools is to restore regular, if not daily, physical education, which has been reduced dramatically over the last decade because of competing education requirements and funding constraints. Physical activity improves both the health and academic performance of children, and thus merits higher priority by educators and a greater appropriation of funding for the Carol M. White Physical Education Program, a federal grantmaking program. Federally funded physical education should also be required to adhere to national standards for quality.

The federal government could target children outside of school settings, as well, with social marketing campaigns directed by the CDC. Funding for the VERB campaign—a national, multicultural social marketing campaign that applied commercial marketing strategies in order to increase

and maintain physical activity among tweens—was eliminated by the Congress, but it is one model for a successful campaign. The evaluation found significant increases in physical activity in the "tween" age group.[12]

In worksite and community settings, interventions that reliably lead to higher rates of physical activity are still being examined. Levels of physical activity are largely influenced by sociodemographics, personal and cultural norms, safety and security, and time constraints. However, some experts believe that enhancing the built environment may increase physical activity by providing greater opportunities and choices for individuals to be physically active.[13] Such enhancements include better design of buildings and communities so that stairways are a convenient and safe alternative to elevators, and residents have access to sidewalks and bike paths.

One good example of a built environment enhancement is the Department of Transportation's Safe Routes to Schools program, which assists community efforts to encourage and enable more children to safely walk and bike to school, and could be expanded. Most ordinances and guidelines that influence the built environment or community design are promulgated at the state or local level. The Environmental Protection Agency in collaboration with the CDC and National Institute for Environmental Health Sciences could be charged to develop federal ordinances or guidelines that include standards or benchmarks for new construction or renovation, and expand grant programs or establish a Hill-Burton type of capital fund to assist compliance. The Department of Interior could also be held accountable for reasonable access to parks and trails so that recreation is not just the pursuit of the wealthy.

The EPA and CDC, in collaboration with their public partners such as the National Association of County and City Health Officials and the American Public Health Association have begun to support the conduct of Health Impact Assessments. HIAs have been defined as a "collection of procedures and tools by which projects, policies, and programs can be evaluated based on their potential effects on the health of a population, and the distribution of these effects within the populations." The EPA and CDC could encourage voluntary HIAs by increasing availability and usability of current tools and expanding funding support. Although certain to be contentious, HIAs could also be required as part of environmental impact assessments.[14]

Social circumstances

Experts debate the best policy options to address socioeconomic determinants of health, but all agree upon the need for greater information. The federal government should dramatically expand data collection and analysis that would help explain the influence of poverty and education on health and the intermediary mechanisms that make the poor and less-educated less healthy, and the better off relatively healthier.

Existing research has demonstrated that health improvement strategies targeting the other determinants of health—behavior, access to medical care, and the environment—may differentially benefit the poor and less well-educated because the burden of these determinants falls disproportionately upon them. However, the most actionable policies lie predominantly outside the domain of health and health care. They involve the social arenas of education, jobs, taxation, minimum wages, maternal and paternal leave, child care for working parents, universal preschool education, K-12 education and higher education, and transportation.

In the environmental field, new construction projects are required to file an environmental impact report. In the health field, there should be a similar health impact report that makes explicit what effect new social policies will have on population health and how negative results could be mitigated. Other countries have already embraced such a policy. Britain, for example, has enacted three overriding policy recommendations: all policies that influence health must be evaluated for their effect on the disparities in health resulting from differences in socioeconomic status; high priority should be given to the health of families with children; and income inequalities should be reduced and living standards improved among the poor.

Much remains to be learned about how race and ethnicity interact with socioeconomic factors to influence health, but the federal government could pursue a number of tested policy options right now to reduce racial and ethnic minority health disparities. Cultural competence—language access, a diverse workforce, cultural awareness, and racial and ethnic data reporting—has been proven to be an important step toward addressing racism in health care and should be expanded dramatically.[15] The federal government could promote cultural competence by encouraging, if not requiring, racial and ethnic minority health data collection, in addition to health

data collection for low socioeconomic groups across federally supported or operated programs through the Department of Health and Human Services, Veterans' Health Administration, and the Department of Defense. Increased oversight and assistance with implementation of standards on Culturally and Linguistically Appropriate Services in health care settings is a second strategy, which would require renewed leadership from the Office of Civil Rights. And the federal government could also restore funds for diversity training and pipeline programs within Title VII Health Professions Programs directed by HRSA.

Whether targeting individuals from low socioeconomic populations, racial or ethnic minority populations, or both, the federal government should lead efforts to integrate empowerment principles into overall population health strategies, ensuring that disenfranchised individuals have a strong voice to advocate for their concerns. The World Bank emphasizes four key elements of empowerment: access to information, inclusion and participation, accountability, and local organizational capacity. The United States is a nation that values entrepreneurialism over solidarity, and individual responsibility over a social contract, so these underlying principles may be difficult to embrace, but they point to a path toward improving the social circumstances of public health.

DISCUSSION

Improving the health and well-being of the American people is critically dependent on greater investment in population health interventions. Such investment has historically fallen short in two fundamental ways. It has been far too small relative to the investment in medical care focusing on diagnosis and treatment of disease. And investment has been targeted narrowly on addressing factors that directly contribute to disease causation. Experts now understand that long-term success in population health improvement is contingent upon addressing traditional health concerns as well as ensuring economic and educational opportunity and healthy environments for all Americans.

The next administration will have the opportunity to lead federal intervention to tackle the two most important behavioral categories of death

and disability: smoking and obesity/physical inactivity. It can also address the socioeconomic determinants of health, which have an independent effect on health, but also act synergistically with behavioral factors and with race and ethnicity to worsen health outcomes. Addressing socioeconomic factors has been and continues to be a major challenge, forcing population health advocates to move outside of the traditional public health realm to examine the effects that federal policies at the Departments of Education, Housing, Agriculture, and Treasury have on health.

Finally, no population health improvement strategy would be complete without examining and addressing environmental health challenges that can cause serious health concerns. And addressing the gaps of the nation's public health infrastructure will be critically important. In particular, the public health workforce shortage, antiquated physical structures, fragmented communication and organizational networks, and above all, inadequate financing, require urgent attention and action.

The next president must insist upon leadership across and within our federal agencies for any or all of the strategies described to be successful at advancing population health. He should designate a single entity to have primary responsibility and accountability for population health improvement, and ensure the authority and necessary resources, including budgetary support, needed to implement the vision and achieve meaningful reform. It will be incumbent upon the president to elevate the field of population health to the same level as disease care, and prioritize realignment of investment of federal health dollars to emphasize prevention and public health.

For many of our population health challenges, we have as many questions as we do answers. Yet, there exists an impressive body of knowledge that has or could be readily translated into effective interventions right now, and an urgency that demands greater action. If the 20th century is our guide, we know that 21st-century population health improvements will enable and empower a greater number of Americans to be healthy, independent, and productive. As a result, the United States will be a stronger nation.

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