In the recent film *Milk*, audiences might notice something striking in the movie's historical film footage: Americans in the 1960s and 1970s looked far more slender than we are today.

Back in that day, people had their share of bad habits. Smoking was rampant. Canned-soup casseroles and “salads” consisting of gelatin dominated the dinner menu. However, instead of jumping into cars, they walked to neighborhood schools, work, shops, and restaurants. Fast food was a treat, not a daily diet, and many jobs entailed some manual labor.

Today, two thirds of American adults are overweight or obese. We get less exercise, spending our work and leisure time in front of screens. Diabetes and other chronic diseases are on the rise, a leading driver of escalating medical care costs. And unlike previous generations of Americans who looked forward to longer lives and better health than their parents, today’s children face shorter life spans.
But more and better medical care alone will not fix our declining health status, nor slow the rising costs of health care. History and science show that we need a multifaceted public health effort—including the delivery of clinical preventive services—to protect the nation’s health. America must invest in the policies, programs, community environments, and preventive care that are known to protect and restore health. By doing so, we can lower our rates of disease and disability, and thereby moderate the cost of expensive medical treatment in the future.

America requires three major reforms to make prevention and wellness the cornerstone of national policy. We must:

1. Provide consistent, robust policy leadership that advocates for and funds multifaceted approaches to prevention and wellness.
2. Strengthen the ability of the public health system to facilitate and, as appropriate, provide community-based prevention, health promotion, and early detection of disease.
3. Assure that all Americans have access to recommended clinical preventive services.

Broadening Health Reform to Improve Our Nation’s Health

Our health system focuses primarily on treating illness rather than on preventing it in the first place. Consequently, health care expenditures are escalating without lasting gains in the health and productivity of the American people. This situation has been characterized as a “significant health care value gap” in which workers, employers, and governments spend more to get less, as characterized by the Business Roundtable. Even with much higher U.S. health care expenditures, the Roundtable discovered that the U.S. workforce is less healthy than the combined workforces of Brazil, China, and India—a condition which poses a significant competitive disadvantage for American companies and workers.

At present, the rising cost and uneven quality of U.S. medical care dominate the national conversation about health reform. While medical care must become more efficient and evidence-based, two other problems merit attention because they contribute to this health care value gap.

First, the medical care structure currently focuses on treating illness, injury, and disability, but gives too little attention to keeping patients healthy.

Second, rising chronic disease rates remain a primary driver of increasing medical treatment costs. In fact, one in three Americans (about 100 million people) has one or more chronic conditions; disability affects about 50 million Americans. The roots of these chronic diseases lie in the American lifestyle and in community settings that shape our efforts to select healthy foods, quit smoking, be active, get recommended preventive care, and manage our illnesses. In addition, exposures to secondhand smoke and other hazards in the physical and natural environments also contribute to chronic disease and disability.

We can reverse the current trajectories of rising costs and declines in health. The key to creating sustainable cost containment—and improving the health of Americans—is to implement reforms that strengthen prevention and wellness in three key areas: the delivery of medical care, the planning and delivery of public health services, and the use of non-health policy to protect the public’s health. The latter two—public health and non-health policy—are especially vital to restoring the nation’s health and competitive advantage. Public health is the practice of preventing disease and promoting good health within groups of people. Non-health policy comprises all those decisions in social, economic, transportation, housing, and other sectors that directly or indirectly influence the health of our nation.

In this paper, the American Public Health Association (APHA) highlights the need for integrated, multifaceted investments to assure that Americans have long, healthy lives with minimal disease and disability. One facet of these investments must be to improve access to and the use of clinical preventive services (i.e., screenings, immunizations, counseling, and disease management to avert complications), along with evidence-based treatment when we are ill.

The key to creating sustainable cost containment—and improving the health of Americans—is to implement reforms that strengthen prevention and wellness in three key areas: the delivery of medical care, the planning and delivery of public health services, and the use of non-health policy to protect the public’s health.
But the core investment must be to prevent or delay the onset of acute and chronic diseases, disabilities, and other conditions by integrating prevention and wellness into all aspects of our lives.

The overarching goal of these investments is to transform the environments where we live, learn, work, worship, and spend our free time into settings that foster good health through public health interventions and public policy. These efforts would reduce exposure to infectious diseases and environmental toxins. Schools, workplaces, and shopping malls would offer healthy lifestyle choices; further, these and other settings would provide information, education, motivation, and assistance that enhance our ability to take care of our health.

A Nation Falling Short of Its Health Potential

To slow the growth of medical care spending, national policy must embrace a new paradigm centered on improving health across all sectors of society. APHA Executive Director, Georges Benjamin, MD, FACP, FACEP (E), describes the opportunity:

“We have the potential to greatly improve our population’s health in the future, but changing our health system will require innovation. The old way of doing things hasn’t worked. Other nations have achieved far better health outcomes at less cost, indicating that we, too, can do the same. The solution is to build a foundation for health by creating a culture of prevention and wellness.”

A composite measure of Americans’ health indicates we are losing ground. America’s Health Rankings™ 2008 revealed a fourth consecutive year that the health of Americans has failed to improve, eroding gains made during the 1990s when health status improved each year. Critical findings from America’s Health Rankings include the following:

- Progress in reducing smoking rates slowed considerably after the early 1990s and has been virtually unchanged in the last four years.
- The prevalence of obesity has more than doubled in the last 19 years. Currently, one in four Americans is considered obese, putting them at increased risk for heart disease, stroke, high blood pressure, type 2 diabetes, and a number of cancers.
Nearly 46 million Americans are currently uninsured, leaving them without adequate access to clinical preventive services. Such services help avert future illnesses and disabilities, detect disease in its early stages, reduce complications from chronic conditions, and improve survival.6

High levels of disease and disability are not inevitable. Table 1 shows that 47% of the actual causes of death for the year 2000 were attributable to health-related behaviors, including individuals’ safety practices, as well as environmental causes.7, 8 Tobacco use, poor diet, physical inactivity, being overweight, and problem drinking are also known risk factors for heart disease, various cancers, stroke, unintentional injuries, and diabetes.4 These conditions continue to top the nation’s apparent causes of death despite billions spent on medical treatment – a critical sign that our current health system is falling short of its potential.7

Table 1. Actual Causes of Death in the United States in 2000

<table>
<thead>
<tr>
<th>Actual Cause</th>
<th>% in 2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobacco</td>
<td>18.1</td>
</tr>
<tr>
<td>Poor diet and physical inactivity</td>
<td>15.2</td>
</tr>
<tr>
<td>Alcohol consumption</td>
<td>3.5</td>
</tr>
<tr>
<td>Microbial agents</td>
<td>3.1</td>
</tr>
<tr>
<td>Toxic agents</td>
<td>2.3</td>
</tr>
<tr>
<td>Motor vehicle</td>
<td>1.8</td>
</tr>
<tr>
<td>Firearms</td>
<td>1.2</td>
</tr>
<tr>
<td>Sexual behavior</td>
<td>0.8</td>
</tr>
<tr>
<td>Illicit drug use</td>
<td>0.7</td>
</tr>
<tr>
<td>Total</td>
<td>46.8</td>
</tr>
</tbody>
</table>


COSTS AND CONSEQUENCES OF ILL HEALTH

A core component of broad health reform must be preventing the underlying causes of disease, disability, and premature death by improving the health of America’s diverse communities through public health interventions. These interventions, along with improved access to clinical preventive services, have the potential to help moderate spiraling medical care costs while improving the health of Americans.

On the other hand, any health reform that lacks a focus on prevention and wellness would perpetuate the health-competitiveness value gap.1 Major consequences of more treatment without health improvement include:

Accelerated health care costs. If current growth in chronic conditions continues through 2023, cases of the seven most common conditions (cancer, diabetes, hypertension, stroke, heart disease, pulmonary conditions, and mental disorders) will increase by 42 percent.2 Many of these new cases will be in persons with an existing chronic condition. People who have multiple chronic diseases incur the highest medical costs; moreover, these complex cases are difficult to treat and manage.10, 11 In addition to mounting medical costs for affected individuals, society will be forced to finance our nation’s medical care at the expense of investments in education, science, transportation, housing, and green technologies.

Chronic conditions and disabilities among U.S. workers will dampen productivity gains. The indirect costs of poor health have other serious economic consequences. Employees in ill health tend to have more absences than healthy coworkers and are less productive when they are on the job, because they are unable to give work their full effort.12 Health problems undercut academic achievement when children are ill and absent from school or do not feel well enough to achieve their learning potential.13-17 The obesity epidemic in children will continue to accelerate the onset of chronic conditions. More than 23 million children ages 2-19 years, or almost one third of our youth, are obese or overweight.18 The near-term impact of excess weight is the cost of treating record numbers of children with prescription drugs designed for adults and for conditions emerging in mid- or late-life like type 2 diabetes, hypertension, high cholesterol, and acid reflux. The long-term implications are serious. These youngsters face a lifetime of managing chronic conditions and have increased risk of developing complications.19 Furthermore, as today’s children enter the adult workforce, they may have diminished ability to contribute to our nation’s economic growth and productivity, and many could become dependent on public medical and disability support.
Disparities in health will persist for populations with socioeconomic disadvantages and for some racial/ethnic minority groups. A strong relationship exists between a lower socioeconomic status and ill health. Abundant data indicate Americans with low incomes and those without a high school degree bear a disproportionate burden of ill health, disability, and premature death.\textsuperscript{20,21} One factor contributing to these disparities is unequal access to high-quality, timely health care. Other factors relate to disadvantages encountered because of low incomes, less education, or race/ethnicity. For example, low-income, rural, and urban communities on average have 25 percent fewer supermarkets than wealthier communities.\textsuperscript{18} This scarcity of supermarkets coincides with a higher incidence of preventable diseases such as cardiovascular disease, cancer, and diabetes. Other difficulties that contribute to health disparities include adverse working conditions, exposure to violence, prolonged levels of extreme stress, and problems securing affordable, safe housing.\textsuperscript{20}

### SLOWING GROWTH IN FUTURE MEDICAL CARE COSTS

We will have minimal impact on the overall health and health status trends of our nation if we do not change the social paradigm for achieving and maintaining good health. We must alter the status quo by changing from illness-oriented medical care to prevention; harmful community settings to healthy environments; and health-eroding policies to ones that support wellness.

### The Multi-dimensional Nature of Health

It takes more than good genes to have a healthy, long life. Indeed, health is multi-dimensional, and many environmental factors beyond our individual control interact with genes or influence our health behaviors. Environments can directly impair wellbeing, as when exposures to toxins accumulate over time and damage our biological systems, or when prolonged and extreme stress accelerate the aging process. In addition, market and social conditions, along with manmade and natural environments, affect our ability to take care of our health.\textsuperscript{20,22-25}

Most Americans know they should adopt a healthier lifestyle. Some try with mixed success. Because of the strong influence of environments, changing our behaviors is not easy. Whether in personal finances, family communications, Blackberry habits, or driving, behavioral change is difficult.\textsuperscript{26,27,28} Workplaces, schools, and other community settings that offer minimal options for healthy eating, physical activity, washing hands, and keeping safe can quickly undermine individuals’ efforts to improve their health. Influences such as advertising, cultural messaging, peer pressure, and news coverage also can serve as potent disincentives.\textsuperscript{20,22-25}

Because health is multi-dimensional, improving health outcomes requires multi-faceted approaches that integrate prevention and wellness into all aspects of society. The best outcomes occur when:

- **The default choice is a healthy choice.** For example, standing orders in nursing homes and hospitals allow nurses to vaccinate all residents and staff without a physician examination. Standing orders have achieved as much as a 50 percent increase in influenza and pneumococcal immunization rates in facilities.\textsuperscript{30} Another example is mandatory folic acid fortification in cereal-grain products, which results in increased folic acid intake for women in childbearing years who eat cereal grain products. Together, fortification and educational interventions have achieved a 26 percent reduction in neural tube defects in newborns.\textsuperscript{31,32}

- **Working, learning, neighborhood, and home environments support and promote health.** Among other things, these environments and supporting policies can provide incentives and create opportunities to enhance personal motivation; develop people’s skills to care for themselves; reduce financial, time, and access barriers to healthy offerings; enhance social norms about wellness; and eliminate hazards.\textsuperscript{22,23,27,33-36}

### GOOD NEWS: HEALTHY LIFESTYLES AND ENVIRONMENTS

To minimize future health care costs, we must improve health outcomes for Americans so we have less disease and disability.\textsuperscript{2,4,37-39} Achieving this goal means using public health and non-health policy to create environments that support and motivate positive lifestyle changes. When people engage in regular physical activity, lose excess weight, curb tobacco use and problem drinking, adopt safety practices, and eat more fruits, vegetables, and whole grains, these lifestyle changes can lower the risk of cancer, type 2 diabetes, heart disease, and stroke.\textsuperscript{40}

As more Americans are able to pursue healthier lifestyles, health outcomes will improve, easing the burden on systems that care for older Americans and persons with chronic and disabling conditions. Environments, policies, and programs that foster healthy lifestyles also will increase the number of children and youth who reach adulthood in optimal health.
**CLINICAL PREVENTIVE SERVICES: ESSENTIAL TO AN INTEGRATED APPROACH TO REDUCING DISEASE AND DISABILITY**

Too many Americans are not receiving clinical preventive services recommended by the U.S. Preventive Services Task Force, the leading authority on effective clinical interventions to prevent disease and disability. A Partnership for Prevention analysis indicates that less than half of Americans receive five of the eleven recommended clinical preventive services. The five services with low utilization are:

- Smoking cessation assistance, such as medications, for adult smokers (received by 28 percent of target population).
- Vision screening for children younger than 6 years (36 percent).
- Influenza immunizations for adults age 50 and older (37 percent).
- Colorectal cancer screening for adults age 50 and older (48 percent).
- Advice to adult smokers aged 18+ to quit smoking (48 percent).

The following services had higher, but still suboptimal utilization rates: pneumococcal conjugate vaccine for infants, hypertension screening for adults, cervical cancer screening for adult women, cholesterol screening for adults, breast cancer screening for older women, and pneumococcal immunizations for older adults.

The Partnership for Prevention analysis also found that use of preventive services by African Americans, Hispanic Americans, and Asian Americans generally lags behind rates for the white, non-Hispanic population. The result is a large group of Americans who are diagnosed late in the course of their disease and have diminished health outcomes as a result. These disparities are symptomatic of the larger issue of a medical care system that does not work for everyone.

Clinical preventive services are an essential facet in an integrated approach to reducing rates of disease, disability, and premature death. Lack of health insurance and inadequate preventive care coverage by health plans are barriers to obtaining recommended services. Other obstacles are not having a medical home or usual source of care and not knowing which preventive services one should receive. Clinicians with insufficient or limited training in delivering preventive care—or who receive inadequate reimbursement for providing it—may be reluctant to comply with recommendations. Others may not have systems that remind them or patients when a preventive service is due.

Notably, expanding the delivery of clinical preventive services is insufficient, in and of itself, to produce the scale of change necessary to achieve noticeable cost reductions. For example, two clinical preventive services—screening and counseling for physical activity and diet—tend to have a minimal or short-lived impact on these behaviors. Once counseled individuals leave the hospital or doctor’s office, market, social, and other forces are stronger influences than a few sessions of counseling.

**Changing the Trajectory with Public Health and Policy**

Changing the long-term trajectory of rising health care costs and declining health outcomes requires a sustained investment in the health and wellbeing of all Americans. Public health approaches and non-health policies can be powerful change agents, producing gains in community health and productivity on par with—or greater than—clinical preventive services. Through public policy, partnerships, community-based programs, and environmental improvements, public health can generate a culture of wellness, influence the marketplace, and engage sizeable populations. When such changes yield improved health outcomes, medical costs can fall, even over a short period.

In contrast to the delivery of medical care to one individual at a time, public health works at a population level. Doing what individual clinicians cannot, the public health system acts as a central hub that:

- Maintains a bird’s-eye view of the health of a community (i.e., any group of people with shared characteristics) by monitoring health status, tracking health risks, investigating changes over time, identifying the underlying sources of disease and transmission, and assessing the impact of public policies on populations.
- Conducts strategic, population-based planning for expanding access to essential health services, preparing for public health emergencies, addressing complex problems with support from stakeholders, evaluating interventions, and informing resource allocation.
- Weaves together partnerships of diverse interests to improve and protect community health, stimulate positive changes in the marketplace, and prepare for natural or manmade disasters.
- Provides services to identify, control, or ameliorate environmental risks and hazards; link...
disadvantaged communities to health services, and protect the public’s health and safety.

Public health approaches typically employ multiple levers to achieve effects. Table 2 identifies the four levers for promoting prevention and wellness.

- Programs promoting health.
- Healthy environments in community settings.
- Public policy.
- Clinical preventive services for groups of people.

Table 2 provides examples of ways to integrate prevention and wellness systematically into all sectors of our lives. This report also features Success Story textboxes that highlight the achievements produced by multi-faceted initiatives. When multiple levers are used together, public health achieves dramatic improvements in the health of Americans.

### Table 2. Levers to Promote Wellness and Prevent Disease and Disability

<table>
<thead>
<tr>
<th>Lever Description</th>
<th>Select Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PROGRAMS PROMOTING HEALTH</strong></td>
<td></td>
</tr>
<tr>
<td>Employ multi-faceted programs to:</td>
<td></td>
</tr>
<tr>
<td>- Develop people's ability to care for themselves</td>
<td>Consumer education or awareness campaigns</td>
</tr>
<tr>
<td>- Reduce risky exposures</td>
<td>Partnerships with nonprofits, non-health government agencies, and businesses to expand healthy options</td>
</tr>
<tr>
<td>- Prepare for public health emergencies</td>
<td>Barrier reductions, such as providing vouchers for child safety seats to low-income families</td>
</tr>
<tr>
<td>- Alleviate health disparities</td>
<td>Incentives for worksite health promotion programs</td>
</tr>
<tr>
<td><strong>HEALTHY ENVIRONMENTS IN COMMUNITY SETTINGS</strong></td>
<td></td>
</tr>
<tr>
<td>Support the public's health and safety by improving the physical features of community settings and building a culture of wellness</td>
<td><strong>Homes</strong> – ban on lead-based paint; healthy home programs to help caregivers install safety devices and reduce asthma triggers</td>
</tr>
<tr>
<td></td>
<td><strong>Schools &amp; Early Child Care and Education Centers</strong> – requirements for immunizations for enrollment; wellness-oriented policies in curricula, food service, facilities, parent education, and after-school programs</td>
</tr>
<tr>
<td></td>
<td><strong>Community-wide</strong> – sidewalks and playgrounds; partnerships to increase access to fresh produce; lactation rooms</td>
</tr>
<tr>
<td><strong>PUBLIC POLICY</strong></td>
<td></td>
</tr>
<tr>
<td>Enact policy (or threaten policy action) to:</td>
<td></td>
</tr>
<tr>
<td>- Enhance people's ability to care for their health</td>
<td><strong>Transportation</strong> – state incentives for 0.08% blood alcohol content laws to reduce impaired driving</td>
</tr>
<tr>
<td>- Instill wellness into community settings</td>
<td><strong>Environmental</strong> – emissions standards; wetlands restoration to improve water quality</td>
</tr>
<tr>
<td>- Induce marketplace changes that promote health</td>
<td><strong>Nutrition</strong> – Women, Infants and Children (WIC) program</td>
</tr>
<tr>
<td></td>
<td><strong>Commerce</strong> – ban on tobacco television advertising; safety standards for consumer products</td>
</tr>
<tr>
<td></td>
<td><strong>Education</strong> – physical education and substance abuse prevention programs</td>
</tr>
<tr>
<td><strong>CLINICAL PREVENTIVE SERVICES FOR GROUPS OF PEOPLE</strong></td>
<td></td>
</tr>
<tr>
<td>Provide high-quality preventive care to groups of people; monitor receipt of preventive services; conduct cost-effectiveness analyses; promote changes in clinical practice</td>
<td>Direct services, such as tobacco cessation phone lines, vote-and-vax (vaccination) programs, school health screenings</td>
</tr>
<tr>
<td></td>
<td>Campaigns that inform people about recommended preventive services</td>
</tr>
<tr>
<td></td>
<td>Partnerships that bring mobile vans offering mammograms to underserved communities</td>
</tr>
</tbody>
</table>
Obstacles to Achieving Prevention and Wellness

Policies to reform the U.S. health macrosystem (i.e., medical care, public health, and non-health policy) must overcome three problems that currently impede prevention and wellness:

1. Inconsistent national leadership and public will to integrate prevention and wellness into all facets of our daily lives.
2. Inadequate investment in the capacity of the public health system, including its workforce.
3. Limited access to and receipt of recommended clinical preventive services, as previously discussed.

Inconsistent National Leadership and Public Will

The Institute of Medicine and others have identified inconsistent senior policy leadership as an obstacle to public health efforts to weave cohesive, comprehensive strategies across all parts of our health system.4, 14, 58 At the national level, “soft” public will means senior leaders have shown an uneven commitment to articulating, advocating, and advancing policies and programs that optimize the public’s health. Years of inattention also have produced major weaknesses in the public health system, especially in terms of the workforce, information technology, and underfunded interventions. The cumulative consequences are:

- National policymaking that has not considered the effect of non-health policy on the public’s health.

Success Stories

Clinical Preventive Services for Groups of People

Through health tracking systems, epidemiological analyses, and clinical research, public health professionals identified mother-to-child transmission as a significant prospect they could address to slow the spread of HIV/AIDS. Rapid adoption of the Public Health Service’s clinical guidelines for pregnant women cut the perinatal HIV transmission rate by 80 percent between 1992 and 1997.56, 57
to make informed decisions, however, is hampered when economic, environmental, social, and other non-health professionals do not have the expertise to make a technical assessment of the potential impact of a policy change on the public’s health.

Health impact assessments are a type of analysis that informs policymakers by providing accurate data on the effects a policy or program would have on the public’s health. Several health impact assessment models exist, and consensus is building about standards of practice. Additional work is needed to fully test these standards on actual policy and program proposals and develop validated methodologies, measures, and tools.29, 39, 60

**MIXED TRACK RECORD IN PROMOTING AND PROTECTING HEALTH**

The federal government has a mixed track record in sustaining cross-agency efforts to promote healthy behaviors and wellness.61 Contributing factors include lack of a comprehensive federal investment plan for prevention and wellness, a weakened Office of the Surgeon General, and incomplete federal budget estimates of prevention and wellness policy proposals. Additionally, despite the rigorous work of the Task Force for Community Preventive Services in reviewing scientific evidence to identify effective disease and disability prevention interventions, there is no system that prompts federal agencies to adopt the recommended interventions.

**Lack of a Federal Investment Plan.** Federal support for prevention and wellness has been ad hoc because Congress and the Executive Branch do not have an investment plan. Such a plan would provide specific, measurable investment goals regarding the nation’s health, that, when combined with annual progress reports, would improve long-term discipline on prevention and wellness.

**Weakened Office of the Surgeon General.** The nation’s doctor, the Surgeon General, has historically been a visible and important champion for prevention and wellness. Prior Surgeon Generals educated the American public about the harms related to smoking and the nature of the HIV/AIDS epidemic. Their reports have helped translate science for application in policy and practice.

A tradition of independence enabled many Surgeon Generals to influence not only medical care and public health, but other social and economic dynamics.62, 63

But in recent years, budget cuts and lengthy gaps between Surgeon General appointments have weakened the office, and political considerations stifled Surgeon Generals’ efforts to mobilize support for evidence-based interventions.63

**Incomplete Federal Budget Estimates of Prevention and Wellness Policy Proposals.** Another factor contributing to a mixed track record is federal “scoring” methods for prevention and wellness interventions. Scoring is the process by which the Congressional Budget Office (CBO) and the Office of Management and Budget (OMB) estimate new revenues and expenses of legislation or policy change, respectively, on the federal budget. Both CBO and OMB lack appropriate models and tools for projecting the cost-savings associated with community-based prevention and health-promotion interventions. Current CBO methods do not produce a complete score for prevention and wellness proposals because estimates are:

- **Developed only for a 10-year horizon.** Many community-based health interventions, such as prevention of tobacco use among youth, require an upfront investment and may not begin to accrue savings for many years. Yet, the
savings gleaned by not having to treat these
avoidable tobacco-related cancers and heart
conditions would be grand when viewed from
a 30- to 50-year horizon. 64, 65

■ Calculated only for impact on the federal bud-
get, even if a community-based intervention
proposal could generate savings for nonfed-
eral entities as well. 67 Covering vaccines for
Medicaid beneficiaries, for example, would
produce quick savings for federal and state
governments, which share program financing.

Absence of a System that Prompts Federal Adop-
tion of Evidence-Based Interventions. Another gap
reflecting inconsistent leadership is slow uptake of
many of the evidence-based practices recommend-
ed by the Task Force for Community Preventive
Services and other authoritative sources. Formal
procedures are needed to support federal agen-
cies in systematically adopting relevant Task Force
recommendations. These apply to:

■ Health programs, including Medicare, the
Veterans Health Administration, Indian Health
Service, and Military Health System.

■ Other federal policy areas, including transpor-
tation and education.

The Suboptimal Public
Health System

More than ever before, the nation needs a pub-
lic health system capable of effectively prepar-
ing for and responding to diverse challenges. An
Institute of Medicine panel found mixed progress
in building strong and effective governmental
public health agencies. Inadequate support from
elected and appointed leaders (including those in
non-health sectors) on both policy and fund-
ing concerned the panel. 14 It called for top-level
leadership to develop the public health system’s
capacity in regard to:

■ Workforce.

■ Information and technology systems.

■ Environmental health.

■ Inter-sectoral partnerships.

■ Communications.

Since the release of the panel’s report, the
public health system has developed four major
initiatives to enhance its performance: accredita-
tion of governmental public health agencies, ac-
creditation of public health agencies, certification
of graduate-level trained public health workers,
and leadership development. Each of these initia-
tives will help assure that public health agencies
and professionals wisely use available resources;
however, the resulting gains cannot overcome
other core difficulties in funding and inconsistent
leadership (including in non-health sectors).

Investing in the public health system is neces-
sary to bring prevention and wellness to scale.
Currently, troubling gaps exist in the delivery of
the essential public health services, and these gaps
exacerbate income, education, and race/ethnic-
ity disparities among U.S. communities. 1 Without
sufficient leadership support, financing, and
authority, public health agencies have had trouble
achieving the scale of interventions needed to
effectively prevent ill health and disabilities.
For example, most states’ funding for tobacco
prevention and control programs is below recommend-
ed levels of $15–$20 per capita. 88, 89 The large
investment of public funds needed to address
tobacco issues reflects the highly addictive nature
of nicotine, especially in children, and federal
policymakers’ past reluctance to enact strict laws
to deter tobacco use.

INFORMATION TECHNOLOGY
AND PUBLIC HEALTH

To prioritize, design, and evaluate interven-
tions, public health agencies need up-to-date
technology and information systems to moni-
tor health behaviors, environmental threats, and
other aspects of community health. 2, 4, 14, 25, 33, 35, 58,
67-69 Current public health information technol-
ogy (IT) systems lack the sophisticated applica-
tions that can assemble silos of data from multiple
sources (e.g., health plans, hospitals, schools) and
incorporate diverse records (e.g., quality of natural
environments, economic conditions, energy,
transportation). The consequences of deficient
technology and information systems are costly
delays and reduced capacity to:

■ Detect disease outbreaks.

■ Identify trends or changes in a community’s
health.

■ Trace diseases, infections, or toxic exposures
to their source.

■ Assess the health impact of policies.

■ Communicate with public health groups, the
medical care system, and other community
sectors

1 The 10 essential public health services are: monitor health status to identify
community health problems; diagnose and investigate health problems and
health hazards in the community; inform, educate, and empower people about
health issues; mobilize community partnerships to identify and solve health
problems; develop policies and plans that support individual and community
health efforts; enforce laws and regulations that protect health and ensure safety;
link people to needed personal health services and assure the provision of
health care when otherwise unavailable; assure a competent public health and
personal healthcare workforce; evaluate effectiveness, accessibility, and quality
of personal and population-based health services; and conduct research for new
insights and innovative solutions to health problems (Committee on Assuring
the Health of the Public in the 21st Century, 2003)

Success Stories

Healthy Environments
in Community Settings

In Wisconsin, the public health tracking program
 collaborated with the state’s natural resources department to implement an initiative to assess regional air quality for health effects. When a community in southeastern Wisconsin asked about factory emissions of the solvent trichloroethylene, the state agencies confirmed high levels of the chemical in the air, which increased risk for damage to the nervous system, liver or lungs; abnormal heartbeats; coma; and even death. Presented with the compelling data and the related recommendation from the Wisconsin Department of Health and Family Services to cut emissions, the factory owner agreed to alter the manufacturing process to eliminate trichloroethylene discharges. 24
Provide much-needed research on causal relationships between our environment and the public’s health. Modern IT capabilities would connect data from multiple sources so public health agencies can provide an accurate, comprehensive picture of community health. This information provides a foundation for diagnosing problems and coordinating agencies and professionals from multiple disciplines to develop effective solutions.

**WORKFORCE CRISIS**

The supply, distribution, and diversity of the health professions workforce is in distress and urgently needs revitalization. Both the nation’s public health and primary care workforces have been declining precipitously. Distribution of the workforce is very uneven, with medically underserved communities experiencing the worst shortages.

Chronic and serious workforce shortages are negatively affecting public health agencies. Government budget cuts have frozen, consolidated, or eliminated key public health positions in epidemiology, public health nursing, health education, laboratory science, biostatistics, administration, and other public health professions. A few facts highlight the enormity of the problem:

- As of 2006, state public health agencies report a 14 percent annual turnover rate. Leading factors include non-competitive salaries and benefits, and insufficient pools of qualified applicants to hire from.

- Nearly half (45-50 percent) of state and federal public health professionals became eligible for retirement between 2004–2009. Many of the prospective retirees are health agency directors and managers.

- Underrepresented minority groups constitute 25 percent of the U.S. population, but only 10 percent of the health professions.

Federal programs, such as Title VII and Title VIII Health Professions and Nursing Education Programs, have helped attract some professionals to underserved communities. But with reduced funding in recent years, the programs’ scope and impact has been lessened. The recent American Recovery and Reinvestment Act marked an important, albeit time-limited, step forward with its $500 million investment in the health professions workforce.

**INADEQUATE RESOURCES FOR PREVENTION AND WELLNESS**

Our nation’s spending on health and health care clearly prioritizes illness over wellness. Table 3 illustrates the gross disproportion between national health spending on health behaviors and environmental health as compared to the share of ill health created by these factors.

**Table 3. Health Spending and Actual Causes of Deaths**

<table>
<thead>
<tr>
<th></th>
<th>Spending on interventions to protect and improve the public’s health, as a percent of total U.S. health expenditures</th>
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<tbody>
<tr>
<td>&lt;2%</td>
<td>Unhealthy lifestyles and environmental causes of death, as a percent of all deaths in the U.S. in 2000.</td>
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<td>47%</td>
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Currently, troubling gaps exist in the delivery of the essential public health services that exacerbate income, education, and race/ethnicity disparities among U.S. communities. Without sufficient leadership support, financing, and authority, public health agencies have had trouble achieving the scale of interventions needed to effectively prevent ill health and disabilities.
Recommendations to Alter the Course of Our Nation’s Health: Prevention and Wellness as National Policy

In summary, reform efforts to stem future growth in health care costs must transform our health system into one that steadfastly promotes prevention and wellness. Clinical preventive services must be part of our health care response, but history and science clearly demonstrate that the foremost opportunity to improve the public’s health comes though integrated, multifaceted approaches focused on groups of people and their environments.25, 30, 71

To make prevention and wellness the cornerstone of national health care policy, we must implement three reforms. We must:

1. Provide consistent, robust policy leadership that advocates for and funds multi-faceted approaches to prevention and wellness;
2. Strengthen the ability of the public health system to facilitate and as appropriate, provide community-based prevention, health promotion, and early detection of disease; and
3. Assure that all Americans have access to recommended clinical preventive services.

Consistent, Robust Policy Leadership on Prevention and Wellness

Top leaders in Washington, D.C., the states and territories, and corporate America must provide robust national leadership if we are to expand health reform beyond medical care. This leadership must be long-term and sustained. Changing the American lifestyle and creating healthy environments will be an iterative, complex process that will evolve over time as we learn more about the interaction between our environment and wellness.

Leadership on a National Investment Plan for Prevention and Wellness

Congress and the Executive Branch should create a joint National Health Improvement Commission charged with developing and implementing a national investment plan for prevention and wellness that addresses three key components of the health system – medical care, public health, and non-health policy. The plan would establish specific, measurable goals regarding the nation’s health. The plan’s first investment priority should be to fund a comprehensive multifaceted effort to restore health to the current generation of young people.4 Progress toward this “healthiest nation in one generation” investment should be benchmarked against quantitative goals, such as a return of childhood overweight rates from the current level (17 percent) to the 1990 level (11 percent) by 2020.9

Based on the national goals, the plan then would identify the investments in funding, policy change, and partnerships necessary to achieve those goals. It would have an asset allocation strategy to guide federal leaders in developing healthy environments through public policy, strengthening the public health system, and expanding access to and the use of clinical preventive services. Annual progress reports would ensure accountability for plan implementation and for attainment of goals.72

A reinvigorated Office of the Surgeon General would contribute to the success of the investment plan. The nation’s doctor would advise the National Health Improvement Commission and help build the public’s will for sustained investments in the nation’s health. The Institute of Medicine’s report, HHS in the 21st Century, recommends rebuilding the office so the next Surgeon General will be a highly visible and effective health champion. The report also charts a course for modernizing the U.S. Department of Health and Human Services (HHS) so it is better able to meet the health challenges facing the nation.63

Leadership to Infuse Health in All Policies

An essential facet of the national investment plan for prevention and wellness should be a deliberate strategy to systematically integrate
Prevention and wellness into all health and non-health policies. Policies governing agriculture and food, transportation, housing, energy, and education are some of the many non-health federal policies that impact the wellbeing of Americans. National health leaders must reach out to colleagues in other disciplines and sectors to attain their strong commitment to prioritize prevention and wellness in decision-making. The strategic use of health impact assessments can play a role in building an evidence base and facilitating increased awareness of the connections between diverse sectors and the public’s health.60

To begin this process, the Surgeon General, or the Assistant Secretary for Health at HHS, would spearhead interagency working groups to integrate new recommendations from the Task Force on Community Preventive Services and other authoritative sources into relevant federal programs and services. As partnerships become established, senior policy leaders would work together to address and remove jurisdictional issues that obstruct comprehensive initiatives for prevention and wellness. Working groups would have a two-year lifespan during which to accomplish their work, or would dissolve earlier if their task has been completed.

A “health in all policies” approach also should expand business support for public investments in the health of Americans. Over time, public health partnerships with business are paramount in establishing marketplaces and community settings that improve health outcomes.73, 74

**Leadership That Insists on Health Impact Assessments**

Health reform should require that the development of new federal policies and programs (both health and non-health) include an assessment of their impact on the public’s health. Findings from health impact assessments are especially useful in revealing potential hidden health costs or advantages associated with proposed non-health policies or programs.

To aid this process, the Centers for Disease Control and Prevention (CDC) should develop an online portal with standardized methodologies, measures, and tools for health impact assessments. Portal visitors would find a library of completed health impact assessments that could be used in developing future assessments at the federal, state, or local level. CDC would need to train public health professionals in conducting assessments with the standardized methods.60

Federal policymakers also should create a demonstration program that provides state and local governments with grants and technical assistance to adopt and use health impact assessments. An evaluation of the demonstration program would discover best practices and produce recommendations that would then be institutionalized as part of the policy consideration process.

**Leadership to Improve Federal Scoring Methods for Prevention and Wellness Interventions**

Senior federal leaders should support the development of methods that both CBO and OMB can use to accurately score the costs and savings associated with community-based prevention and health promotion programs and policies. At a minimum, such methods would provide:

- Ten-year and longer-term estimates.
- Assessments of the impact on federal and relevant non-federal entities.

Federal policymakers should create a demonstration program that provides state and local governments with grants and technical assistance to adopt and use health impact assessments. An evaluation of the demonstration program would discover best practices and produce recommendations that would then be institutionalized as part of the policy consideration process.
A Stronger, High-Impact Public Health System

A strong public health system is critical to protecting and improving the nation’s health and is paramount to creating the framework for planning and executing prevention programs and activities across multiple sectors. Top-level leadership must focus on the frailty of the system: the insufficient public health workforce, inadequate IT, and underfunded programs and interventions at local, regional, state, and national levels.

REBUILDING THE PUBLIC HEALTH WORKFORCE

Existing federal programs only partially address gaps in the supply, distribution, and diversity of the health professions workforce. To close serious shortages, health reform legislation must significantly increase support for workforce development initiatives for public health personnel, primary care providers, health educators, epidemiologists, health laboratory workers, and other public health professionals. Some specific areas for enhanced support include:

- Resources for Titles VII and VIII of the Public Health Service Act and graduate medical education programs to strengthen the pipeline that furnishes the new providers needed by state and local health departments, safety-net health facilities, and newly insured Americans.76

- Programs that diversify the public health workforce by recruiting and supporting underrepresented minorities and students of disadvantaged backgrounds into the health profession—a key building block in efforts to eliminate health disparities.63, 79, 75-77

- A demonstration program to mobilize and train a cadre of retired professionals to regularly volunteer. Augmenting the U.S. Public Health Service Commissioned Corps would minimize start-up costs and the time required to launch the program, while increasing the odds of its success. An adjunct partnership with the RSVP volunteer program of Senior Corps would enable the public health system to attract and support volunteers ages 55 and older. These volunteers would enrich the system with their knowledge, skills, and networks from past careers.

EXTENDING HEALTH IT INVESTMENTS TO PUBLIC HEALTH

Health IT has the potential to increase quality and reduce some costs in the health system, especially when public health agencies are integrated into regional health information exchanges. This integration would enhance the ability of public health agencies to monitor wellness and health in a community via multiple data sources, identify threats to the public’s health, and communicate timely information and guidance across all parts of the community.78, 79 With this information, public health agencies and their partners would be able to quickly react to stem a salmonella outbreak, for example, or help policymakers prioritize competing proposals based on actual, rather than perceived, community needs.

As medical care providers adopt health IT, a parallel and coordinated effort should offer resources and technical support for state and local public health departments to modernize their IT. This dual approach would facilitate connections throughout all parts of our health system, but it requires resolving a host of challenging issues, such as protecting individuals’ privacy and coordinating data. Health IT systems and exchanges must ensure that all personal data remain private and secure.

INVESTING IN PUBLIC HEALTH INTERVENTIONS IN PROPORTION TO THE IMPACT OF UNHEALTHY BEHAVIORS

Prevention and wellness approaches tend to require a modest upfront investment, but the return on investment is positive, sometimes even in the short-term.38, 42 A dedicated public health funding stream would assure the health system has sufficient resources to make a significant dent in unhealthy behaviors, environmental hazards, and poor health outcomes. Priority investments would go to wellness and prevention programs aimed at children and groups of Americans who suffer from a disproportionately high burden of disease, disability, and premature death.39, 80

To minimize growing pains, the national investment plan for prevention and wellness would gradually augment funding for public health over a five-year period. Ideally, these increases would leverage financial and in-kind investments by business and other partners. As an example of needed funding levels, Trust for America’s Health—based on an analysis by the New York Academy of Medicine—recommends increasing governmental funding for public health from the current $35 billion per year to $55 billion-$60 billion per year.81 The proposed total increase of $20 billion-$25 billion is about 1 percent of total U.S. annual health care expenditures.

Options abound for the source of the new funding stream. Traditional ideas include enhancing taxes on tobacco, alcohol, soft drinks, junk
food, gas, or sedentary entertainment to generate resources for public health. The federal government could add a small percentage to Medicare withholdings or dedicate a portion of any new Internet sales tax. The Brookings Institute’s Hamilton Project has proposed a wellness trust financed from multiple sources. The recent American Recovery and Reinvestment Act included a variation of the wellness trust idea.

Annual funding increases would develop the public health system’s capacity to protect and promote health. The funding would support all four levers that public health uses to promote prevention and wellness: programs promoting health; healthy environments in community settings; public policy; and clinical preventive services for groups of people (see Table 2).

**Clinical Preventive Services for All**

All people living in the United States must have access to affordable, high-quality, preventive clinical and health services. Accomplishing this goal will require:

- First-dollar coverage of clinical preventive services by health plans and federal health programs based on recommendations from the U.S. Preventive Services Task Force.
- Additional health professional training in clinical preventive services, along with provider incentives that motivate delivery, such as comparative quality report cards or performance bonuses.
- Integration of patient and provider reminders about recommended preventive services in health IT.
- Expansion of public health initiatives that:
  - Link people to affordable, high-quality preventive services and any necessary follow-up care.
  - Expand opportunities for attaining clinical preventive services in nonclinical community settings (e.g., worksites).
  - Build awareness of recommended preventive care for different population groups (according to age, gender and risks).
  - Establish partnerships to improve the delivery of preventive care to racial/ethnic minority groups and persons without adequate or any health insurance coverage.

**Endnotes**

5. APHA Executive Director, Georges Benjamin, Oral Communication, April 30, 2009.