



# Rapid Public Health Policy Response Project

September 2009

School of Public Health and Health Services

## The Role of Prevention in Health Reform



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THE GEORGE WASHINGTON UNIVERSITY  
SCHOOL OF PUBLIC HEALTH  
AND HEALTH SERVICES

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### **About this Paper**

Health reform legislation pending in Congress includes a significant commitment to public health and prevention. Funds could support evidence-based community, school, and workplace interventions. Taxation policies can also be used to influence behavior. Rebuilding the public health workforce and strengthening the primary care and prevention infrastructure are other core components of a “wellness” framework.

It is clearly established that prevention-related interventions in both clinical and community settings can dramatically reduce disease burden and early death. Cost analyses involve more complex calculations, but here, too, the benefits are well-documented. In clinical settings, some prevention activities have immediate cost benefits while others initially increase costs, but may save money over the long term. In community settings, programs and services designed to improve physical activity and nutrition, or to reduce tobacco use, could save the nation an estimated \$16 billion annually within five years.

This paper reviews the case for prevention and the provisions in the pending health reform legislation that would promote good health and prevent disease. Among these are mandates to develop a national prevention strategy, dedicated funding for community initiatives, and incentives for employers and insurers.

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### **About the Rapid Health Policy Response Project**

The Rapid Health Policy Response Project of the School of Public Health and Health Services at The George Washington University presents data and other background information on breaking public health stories. The goal is to educate the public, policymakers, legislators, health care providers, the media and others in order to promote informed decisionmaking.

Karyn Feiden, an independent consultant and lecturer in health policy at the GW's SPHHS who writes about public health and health care, provides editorial support for this project. Financial support comes from the Public Health and Policy Group of Pfizer, Inc., which provides no input into the content of these reports.

# The Role of Prevention in Health Reform

The health reform legislation pending in Congress includes a significant commitment to community health and prevention, but these provisions have received relatively little public or media attention. In the U.S. House of Representatives, the so-called “tri-committee bill” would establish a prevention trust to support core public health activities and community-based prevention.<sup>1</sup> The Senate Committee on Health Education Labor and Pensions has drafted similar provisions for a bill to be formally introduced into the U.S. Senate.

The importance of prevention in keeping people healthy is well-established and the need is clear: Compared with 19 industrialized countries, the United States had the highest rate of death among people under age 75 from “amenable causes” — that is, deaths that might have been prevented by health care.<sup>2</sup>

Appropriate clinical services — such as screening, immunizations, and pharmacotherapy to treat nicotine addiction — are fundamental prevention tools. But the tools of medicine offer only part of the solution.

Primary prevention — avoiding disease before it begins to develop — is most effectively accomplished with broader strategies that promote the health of communities. The public health toolbox includes programs to improve access to healthy food and recreational facilities, marketing campaigns advocating healthy behaviors, environmental and workplace safety regulations, and emergency preparedness. Funding for such initiatives is currently inadequate, according to the New York Academy of Medicine and the Trust for America’s Health, which say that annual local, state, and federal allocations for public health come up \$20 billion short.<sup>3</sup>

This paper examines the health benefits of prevention, the question of whether prevention saves money, and the policy options for strengthening prevention in clinical and community settings. It also reviews the provisions in proposed health reform legislation intended to advance prevention strategies.

## The Health Benefits of Prevention

The resources of the U.S. health care system do not emphasize wellness. According to the Centers for Disease Control and Prevention (CDC), more than 75 percent of the nation’s \$2 trillion health care budget goes instead to treat chronic diseases, many of which are preventable.<sup>4</sup> By contrast, only about three percent of every health care dollar, or an estimated \$70 billion, was spent on prevention in 2007.<sup>5</sup>

In a sense, the argument for primary prevention is self-evident, at least at the level of the individual. Who would not prefer to remain in good health, rather than receiving treatment for illness? But the gap is wide between what is known about preventing disease and promoting health, and what actually gets done about it, as dramatized by the largely preventable health consequences of smoking and obesity, and the associated costs:

- About 43 million people over age 18, roughly 20 percent of the adult population, smoke and some 8.6 million of them currently have a smoking-related illness. Three-

and-a-half million children under 18 have smoked in the past month. And six million children alive today will ultimately die from smoking if current smoking rates do not decline.<sup>6</sup> The estimated direct and indirect costs of smoking exceed \$193 billion annually.<sup>4</sup>

- ▶ Two-thirds of American adults over age 20 are overweight and one-third are obese, according to the 2003–04 National Health and Nutrition Examination Survey.<sup>7</sup> Cardiovascular disease, some cancers, hypertension, diabetes, and disability are among the risks associated with excess weight, and in 2000, the total health care costs associated with obesity approached \$117 billion.<sup>4</sup>

Researchers have highlighted an array of health benefits that could accrue from wider adherence to prevention recommendations advanced by the U.S. Preventive Services Task Force, the CDC, and other bodies. For example:

- ▶ Increasing the use of just four preventive clinical services that are significantly underutilized — tobacco use screening and intervention, colorectal screening, adult influenza vaccination, and breast cancer screening — could yield 1.7 million quality-adjusted life years.<sup>8</sup> (A QALY is the additional number of healthy years that an intervention adds to life, with adjustments made for health consequences that are not fatal.)
- ▶ If every American adult followed appropriate prevention guidelines — including the use of aspirin, control of weight, cholesterol and blood pressure, and tobacco cessation — heart attacks would drop by 60 percent over 30 years (from 43 million to 16 million) and strokes by 30 percent (from 33 million to 23 million). Admittedly, even the best health care systems do not get 100 percent compliance from their patients, but they do achieve performance standards that, if universally replicated, would still have a dramatic effect, reducing heart attack rates by 36 percent and strokes by 20 percent.<sup>9</sup>
- ▶ Improving control of blood sugar levels among people with diabetes reduces their risk of eye, kidney, and nerve disease by 40 percent. Blood pressure control in the same population reduces the risk for heart disease and stroke by 33–50 percent.<sup>10</sup>
- ▶ States could have reduced rates of youth smoking by as much as 13.5 percent during the 1990s had they funded their tobacco control programs at the levels recommended in the CDC’s best practices guideline.<sup>11</sup>
- ▶ Among 30 developed nations, the United States ranks 25th in infant mortality and 22nd in maternal mortality.<sup>12</sup> A package of public health best practices and evidence-based medicine could impact that ranking through access to prenatal care, reduced smoking among pregnant women, and better management of high-risk pregnancies.<sup>13</sup>

### Does Prevention Save Money?

With cost dominating health care reform discussions, the proven benefits of prevention do not necessarily ensure its widespread use. Legislators and policymakers are also arguing

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about whether it saves money. In general, cost considerations favor population-based primary prevention over clinical prevention, as discussed below.

As well, the bottom line depends on the time frame in which the costs of prevention are analyzed. Short-term budgetary considerations have thus far dominated the discussion, guided by the approach the Congressional Budget Office (CBO) uses to examine new public spending under the federal Budget Act. “Legislative initiatives that produce near-term costs but longer-term savings are only examined based on their ten-year cost impact,” according to a *Health Affairs* article published in September. The authors dramatized the limits of this approach with their analysis of diabetes: the 10-year cost of a diabetes intervention targeted at a population ages 24 to 30 is \$1.2 billion, but over a 25-year period, net savings of \$6 billion accrue.<sup>14</sup>

**Clinical Prevention:** In health care settings, screening or monitoring a large group of healthy people may be necessary to identify and treat the relatively few people who actually have the condition of concern. Thus, the Congressional Budget Office has concluded that “for most preventive services, expanded utilization leads to higher, not lower, medical spending”<sup>15</sup> and *Washington Post* columnist Charles Krauthammer writes that “prevention is a wondrous good, but in the aggregate it costs society money.”<sup>16</sup>

In an analysis of hundreds of cost-effectiveness studies published in *The New England Journal of Medicine*, researchers concluded that 20 percent of clinical prevention services save money overall, while the rest add to health care costs.<sup>17</sup> For example:

- ▶ Vaccinating toddlers for *haemophilus influenzae* type b and screening men aged 60–64 once for colorectal cancer both save money.
- ▶ Screening newborns for an enzyme deficiency costs only \$160 per quality-adjusted life year.
- ▶ On the far end of the continuum, screening all 65-year-olds for diabetes costs \$590,000 per QALY, compared with screening only those with hypertension.

As the CBO points out, “just because a preventive service adds to total spending does not mean that it is a bad investment.” Roughly 60 percent of the preventive services analyzed in the *New England Journal* study “have additional costs that many in the health care community consider to be reasonable relative to their clinical benefits,” according to the CBO.<sup>15</sup>

Or, as economist Steven Woolf points out, “health care, like other goods, is not purchased to save money ... The proper question for a preventive (or therapeutic intervention) is how much health the investment purchases.”<sup>18</sup>

From that perspective, targeted interventions may be an appropriate way to stretch limited resources — the cost-benefit ratio can differ significantly where it is possible to identify high-risk populations and provide certain screening or diagnostic services only to them.

Setting priorities among proven prevention activities is another resource-allocation technique. For example, the National Commission on Prevention Priorities has ranked prevention services on the basis of both their impact on disease burden and on their cost effectiveness.<sup>19</sup> The three services that offer the greatest gain in quality-adjusted years of life

also save money — discussing aspirin use with adults at increased risk for cardiovascular events, a package of childhood immunizations, and tobacco-use screening and intervention.

**A Population Focus:** The primary prevention techniques emphasized in the community involve very different cost calculations because of their disproportionate contribution to health. For all the attention on the diagnosis and treatment of disease, health care actually has a remarkably small influence (10 percent) on the risk of early death. Public health targets factors that are much more significant — the behavior patterns that account for 40 percent of the risk of early death and the social circumstances and environmental exposure that account for 20 percent of that risk. (Genetic predisposition accounts for the remaining 30 percent.)<sup>19</sup>

In a letter to Congress touting the benefits of community prevention to “improve health, save money, [and] reduce the demands on our health system,” the heads of six major foundations and health care organizations singled out the particular success of tobacco control, access to healthy foods and safe recreation, lead poisoning abatement, road safety, and reducing environmental toxins.<sup>20</sup>

To assess the return on investment from community-based prevention, the Trust for America’s Health evaluated 84 studies of non-clinical programs designed to improve physical activity and nutrition, or reduce tobacco use. Based on that analysis, researchers concluded the nation could save \$16 billion annually within five years by spending \$10 per person per year on such programs. That represents a return of \$5.60 for every dollar of investment.<sup>22</sup>

Research has also shown that workplace wellness programs return \$2–\$3 on the dollar (through reduced health care costs and increased productivity).<sup>23</sup> Safeway, for example, promotes healthy behavior with health insurance premium discounts based on tobacco use, weight, blood pressure, and cholesterol levels. The company claims that obesity and smoking rates among its employees are roughly 70 percent of the national average.<sup>24</sup>

### Strategies to Promote Community-Based Prevention

Restructuring our approach to health and health care to emphasize prevention, rather than treatment, as public health advocates urge, is a paradigm shift likely to require a package of new regulations and policies, dedicated resources, and strong leadership.

In clinical settings, this would likely mean significant changes in the structure of insurance reimbursement and physician training (subjects that are not explored in this paper). Outside the health care milieu, many other recommendations for focusing on broader populations have been advanced:

- ▶ **Implement evidence-based primary prevention initiatives in the community:** The CDC’s *Guide to Community Preventive Services* systematically reviews community-based programs and policies to identify those with demonstrated effectiveness and provides data on the likely return on investment. The focus of these programs ranges from adolescent health, alcohol and asthma to vaccines, violence and worksite policies, and of course includes tobacco and obesity.<sup>25</sup>
- ▶ **Expand workplace initiatives:** Tax incentives and other public policies can be

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used to motivate employers to expand workplace wellness programs and initiate smoke-free workplace policies.<sup>26</sup> Partnerships between businesses and the public health community have also been identified as an underused strategy for promoting worker health.<sup>27</sup>

- ▶ **Target children:** School-based initiatives offer an opportunity to reach the 56 million children enrolled in primary and secondary schools. The Robert Wood Johnson Foundation, for example, has funded *Sports4Kids*, which uses sports to build body awareness and self-esteem, and *Healthy Schools*, which works to improve nutrition and physical activity among school children.<sup>28</sup>
- ▶ **Consider taxation policies:** When federal and state tobacco excise taxes go up, rates of smoking decline.<sup>29</sup> This documented relationship is the basis for calls to further increase cigarette taxes,<sup>26</sup> and to consider taxing soda and other “junk” foods.<sup>30</sup>
- ▶ **Strengthen the primary care and prevention infrastructure:** The Association of Schools of Public Health (ASPH) has called for long-term investments to:
  - Train primary health care providers and community health workers in prevention.
  - Expand community facilities that house prevention programs.
  - Integrate public health and primary care programs through information and administrative systems.
  - Develop a national network of Community Health Education and Resource Centers, modeled on existing community health centers, to coordinate community-based prevention services.<sup>26</sup>
- ▶ **Rebuild the public health workforce:** ASPH has declared an imminent “public health workforce crisis,” estimating that 250,000 additional public health workers will be needed by 2020.<sup>31</sup> In particular, shortages of public health physicians, public health nurses, epidemiologists, health care educators, and administrators need to be addressed.

### Prevention in the Health Reform Proposals

While certain to be a moving target until passage, health reform legislation in both houses of Congress currently includes a number of prevention-related measures. As of late August 2009, these are the key provisions, as summarized by the Kaiser Family Foundation<sup>32</sup> and the National Association of Community Health Centers<sup>33</sup>:

**Senate Proposals:** Legislation proposed in the U.S. Senate would:

- ▶ Establish a National Prevention, Health Promotion and Public Health Council, composed of leaders of most federal departments and agencies, to set the nation’s health goals, develop integrated, evidence-based models and innovative approaches to meet those goals, ensure continued public input, and report annually to Congress.

- ▶ Create a federal Prevention and Public Health Investment Fund to expand and sustain funding for prevention and public health programs.<sup>34</sup>
- ▶ Award competitive grants to state and local governments and community-based organizations to implement and evaluate proven community preventive health activities designed to reduce chronic disease rates and address health disparities.
- ▶ Permit insurers to create incentives for health promotion and disease prevention.
- ▶ Encourage employers to provide wellness programs. The bill calls for targeted educational campaigns to raise awareness of the value of these programs and an increase in the premium discount (from 20 percent to 30 percent) for employees who participate in them.
- ▶ Establish a temporary Right Choices Program to provide low-income, uninsured adults access to preventive services until universal insurance coverage becomes available. Services would include a chronic disease health risk assessment, a care plan and referrals to community-based resources.

**House Proposals:** Legislation proposed in the U.S. House of Representatives (H.R. 3200 Division C) would<sup>1</sup>:

- ▶ Develop a national strategy to improve the nation's health through coordinated, evidence-based clinical and community-based prevention and wellness activities.
- ▶ Create a Prevention and Wellness Trust that would, among other activities, provide community-based prevention and wellness research and service grants to state and local health departments and nonprofit entities.
- ▶ Create task forces to develop, update, and disseminate evidenced-based recommendations on the use of clinical and community prevention services.

Additionally, H.R. 3200 would amend Medicare and Medicaid to broaden coverage for proven prevention services, eliminate any cost sharing for these services, and increase Medicare payments for certain preventive services to 100 percent of actual charges or fee schedule rates.

The pending legislation would also significantly increase funding for Community Health Center programs. The House bill would allocate an additional \$38.8 billion beyond current appropriations over the next 10 years, while the Senate proposal calls for a \$3 billion increase in 2010, with incremental annual increases that reach \$8.3 billion by 2015.<sup>33</sup>

These proposals suggest the nation's legislators recognize that prevention has a place on the health care agenda. But in the face of a growing federal deficit and opposition to new spending commitments, the Congressional Budget Office's approach to estimating costs and expenses remains a significant impediment to legislative action. Recognizing that prevention may require short-term investments that can yield important cost savings in the long term, especially given the enormous burden associated with chronic disease, is an essential step for moving forward.

In short order, the Senate will decide how to merge proposals drafted by two of its committees, so that a bill can be brought to the floor for a vote. That decision will help determine the nature and extent of the prevention provisions that endure in any health reform proposal.

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### Endnotes

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  - Thirty-five percent of the population is currently screened for tobacco use, counseled briefly and offered drug therapies. Increasing that to 90 percent would save 1.3 million quality-adjusted life years (QALYs).

- Thirty-five percent of the population is currently screened as recommended for colorectal cancer. Increasing that to 90 percent would yield 310,000 QALYs.
  - Sixty-eight percent of women are currently screened as recommended for breast cancer. An increase to 90 percent would save 91,000 QALYs
  - Sixty-five percent of adults age 65 or older and 36 percent of adults 50 to 64 are vaccinated as recommended for influenza. Increasing that to 90 percent would save 110,000 QALYs.
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