Public Health Prevention Efforts:
Saving Lives, Saving Money?

ALLIANCE FOR HEALTH REFORM

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Fast Facts

- Managing and treating chronic illness accounts for more than 75 percent of health care spending in the United States.[1]
- Per person, health care spending for obese adults is 42 percent higher than for normal-weight adults.[2]
- The U.S. spends $96 billion annually on tobacco-related medical costs.[3]
- Only 3 percent of health care spending goes to public health prevention programs.[4]
- Research shows that community prevention can save 4.5 million lives and nearly $600 billion over 25 years.[5]

Chronic conditions are the biggest drivers of health care costs. Obesity, for example, is closely associated with several chronic conditions, and per-person health care spending for obese adults is 42 percent higher than for normal-weight adults.[6] Diabetes and other chronic conditions can often be prevented or delayed by addressing health-related behaviors such as smoking, physical inactivity and poor diet.

Expanding health insurance coverage, improving the quality of care or expanding community and behavioral prevention can each save lives, researchers have found. But of those three, community prevention is the only intervention that has saved lives *and* money in the long run— nearly $600 billion over 25 years.[7]

Health care now accounts for 18 percent of gross domestic product, and it's expected to account for 19.6 percent by 2021.[8] Still, the U.S. health care system ranks 26th in the world in life expectancy, 25th in maternal mortality[9] and 30th in infant mortality. Three-fourths of costs are attributable to chronic illnesses[10], yet only 3 percent of health care spending goes toward prevention of these conditions.[11]

On July 13, 2012, the Alliance for Health Reform, with support from the Robert Wood Johnson Foundation, held a briefing examining the potential help of public health initiatives in preventing high cost chronic health conditions. Panelists were: Ursula Bauer, director of the National Center for Chronic Disease Prevention and Health Promotion at the Centers for Disease Control and Prevention; Thomas Farley, commissioner of the New York City Department of Health and Mental Hygiene; Matthew Myers, president of the Tobacco-Free Kids Campaign; and Linda Bilheimer, assistant director for health and human resources at the Congressional Budget Office.

Reversing the Trend

Attempts to realign health care spending are underway. The U.S. Department of Health and Human Services' Centers for Medicare and Medicaid Services is moving toward a value-based payment model under the Shared Savings Program and other initiatives for Medicare.

The Prevention and Public Health Fund created in 2010 by the Patient Protection and Affordable Care Act was designed to curb health care cost growth from chronic illnesses while reorienting health care toward wellness. The multibillion-dollar fund is meant to pay for public health preparedness, research, community-based interventions and more.

However, as Congress begins budget discussions in the coming months, tough decisions about reducing the deficit will necessitate a discussion regarding which health care innovations bear out the financial investment, and some prevention dollars could be at risk.[12]

Quantifying Return on Investment

When it comes to return on investment, there are questions about whether money spent on preventive services improves health outcomes, whether public agencies recoup their investments, and whether expenditures can lower the deficit and contribute to economic growth.

There's some evidence that preventive services perform well on the first measure. A study published in *Health Affairs* found that, for every 10 percent increase in local public health spending, there was a corresponding drop in preventable infant deaths and deaths from heart disease, diabetes and cancer.[13] Research also shows that investments in comprehensive tobacco prevention and smoking cessation programs reduce smoking among both adults and youth. Declines in smoking rates could prevent people from developing cancer, heart disease and chronic obstructive pulmonary disease.[14]

On the second point, studies have shown that some preventive health programs can be cost-effective—that is, the programs create good value for the money spent, and sometimes cost less than treatment. For instance, a recent review

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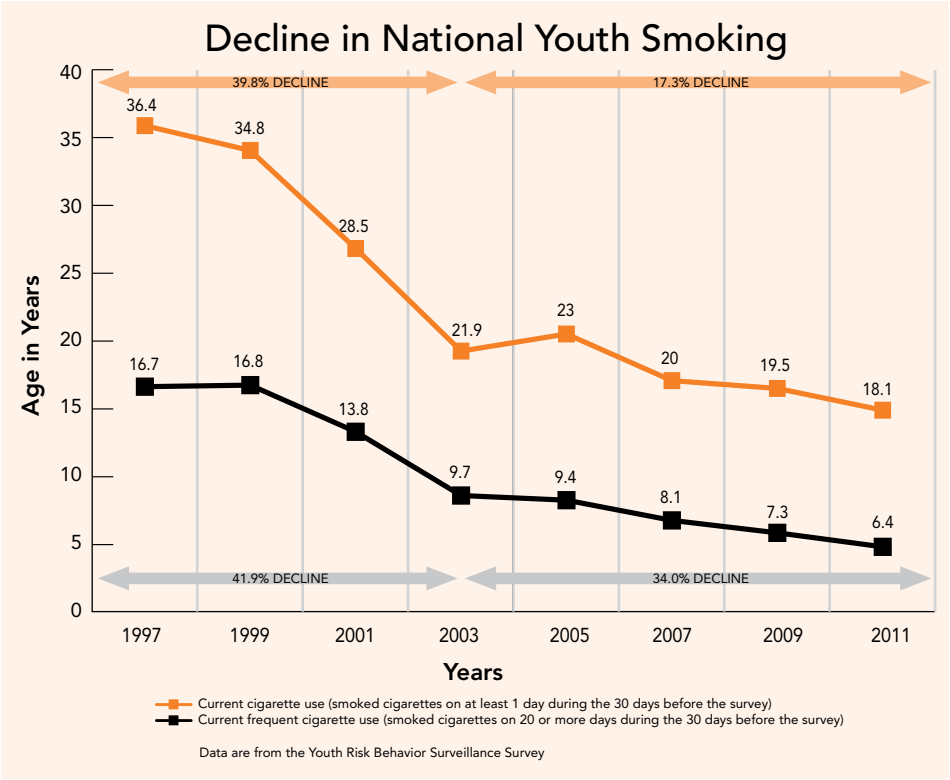
published in the *New England Journal of Medicine* (NEJM) found that both person-centered prevention programs, such as immunizations, and environmental efforts, such as bans on trans fats, outperformed treatment in measures of cost effectiveness.[15] But few studies have been long-term enough to show that they recoup the money spent on them. For instance, the Congressional Budget Office (CBO) traditionally forecasts forward only 10 years when estimating the fiscal impact of policy decisions, while preventive health programs often require a longer time frame to show savings.

The final question—whether the government can save money and reduce deficits with preventive approaches—is less clear. Trust for America's Health argues that every dollar spent on prevention yields $5.60 in savings.[16] A December 2011 study about return on investment in tobacco-control spending found that Washington State generated $5 for every $1 spent on its comprehensive tobacco prevention and smoking cessation program.[17] But some remain unconvinced.[18,19]

Two new pieces of information are beginning to surmount the skepticism, however. First, a NEJM report found that environmental changes, such as trans fat bans, saved more than clinical interventions.[20] Second, a recent CBO report found that a 50-cent cigarette excise tax increase would produce long-term cost savings. By 2021, it concluded, there would be 4.3 percent fewer smokers between the ages of 18 and 24, and more than 10,000 people would be alive in 2021 because they had quit or hadn't started smoking.[21]

The tax itself would reduce federal deficits by $42 billion through 2021, CBO projected, estimating that federal revenues would increase by $41 billion and federal spending would drop by $810 million in the first nine years.[22] Savings to Medicaid would continue for the length of projection.[23] What's more, the government could expect an increase of $2.9 billion through 2021 in income taxes from former smokers who stay in the workforce longer.[24]



At the same time, as people live longer and healthier lives because they don't smoke, they also draw on Social Security. Even still, projecting out to 2085, the report found a net, if small, savings from the tax over its life.

"We're talking about very small amounts in all these areas, relative to the size of the economy," said Linda Billheimer, deputy assistant director for health at the CBO. "But the overall effect, including the income from the tax, means that the deficit declines throughout the whole period."[25]

Ongoing Programs and New Initiatives

States that have made larger investments in comprehensive tobacco control programs have seen cigarette sales drop more than twice as much as in the country as a whole, and smoking prevalence among adults and youth declined faster as spending for tobacco control programs increased.[26,27] (See chart) When public health funds are spent on mass media campaigns to encourage quitting, more tobacco users try to quit. The CDC's 2012 campaign, "Tips from Former Smokers," yielded more than double the number of calls the quit-smoking hot lines usually receive, according to the CDC.[28] The CDC estimates that the 12-week campaign generated 500,000 quit attempts and 50,000 successful long-term quits.[29] The Campaign for Tobacco-Free Kids found that public health programs lower the incidence of lung cancers and chronic obstructive pulmonary disease, among other conditions.[30,31]

Likewise, New York City, which has implemented an excise tax on cigarettes and a comprehensive smoke-free air law and anti-tobacco mass media campaigns, has decreased adult smoking by 35 percent, and approximately 450,000 fewer New Yorkers are smoking since 2002.[32]

In addition, New York City set a goal in 2005 to eliminate trans fats—industrially produced fats that increase heart disease risk—from foods served in city restaurants. Health inspectors enforce the regulation, and 95 percent of restaurants comply.[33]

The city also aimed to cut New Yorkers' sodium intake by 20 percent

to reduce rates of hypertension, heart disease and stroke.[34] To do this, the city asked prepared food manufacturers —the largest source of dietary sodium in the American diet—to comply with voluntary reductions in sodium. So far, 28 major food manufacturers, including Kraft and Unilever, have signed on. A report on how well the companies are doing is due out in 2012.[35]

Involving primary care providers in prevention services is a cornerstone of New York City's prevention efforts. At 3,000 medical offices around the city, electronic medical records (EMRs) can alert doctors to potential prevention opportunities with their patients. For example, alerts remind doctors to talk with patients about the consequences of chronic conditions such as high blood pressure. Doctors also discuss ways to improve lifestyle behaviors that have the potential to dramatically reduce the risk of developing heart disease, stroke, or other diseases. What's more, a doctor can use the records to contact all patients with high blood pressure for follow up and treatment.[36]

The innovation here, says Thomas Farley, M.D., M.P.H., a pediatrician and commissioner of the city's Department of Health and Mental Hygiene, is that these prevention-oriented EMRs are bringing to smaller offices the coordination that HMOs have long provided their members.[37]

Some results are in. The New York City programs as a whole—smoking reduction, dietary changes and EMRs—have resulted in a 33 percent drop in incidence of heart disease and a 16 percent reduction in stroke. New Yorkers are living longer—2.4 years longer than Americans as a whole—and the difference grows every year.[38] (See chart)

"These are population-wide problems that demand population-wide solutions," said Farley, "solutions that we've demonstrated are possible, workable and not expensive."[39]

Research shows that clinicians who talk with their patients about obesity, smoking, alcohol use and other lifestyle behaviors see greater changes in their patients' health.

The CDC has provided technical assistance to community health workers (CHWs)—health navigators, peer counselors and outreach workers, among others—to improve health for less money.[40]

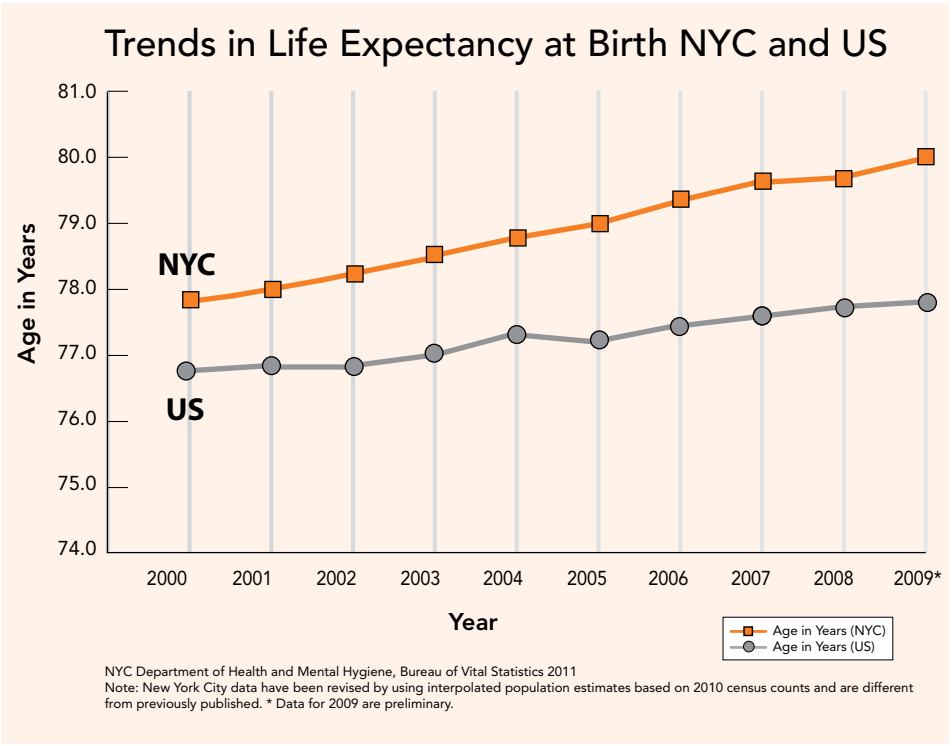
Interventions that incorporate CHW services have been found to:

- Help people with chronic conditions keep their appointments and adhere to treatment, preventing costs associated with acute medical events;[41]
- Lower individuals' blood pressure and cholesterol levels;[42]
- Decrease use of emergency rooms for people with diabetes;[43]
- Increase patients' disease self-management;[44] and
- Reduce the severity of, and hospitalization for, asthma-related problems.[45]

Prevention programs using CHWs are underway in Florida, Rhode Island, Texas and Georgia, among other states.[46] CHWs are being used as lifestyle coaches at the YMCA and are providing outreach for cancer screening and treatment adherence.[47]

A lack of prevention puts undue stress on the treatment arm of the health care system and drives up the cost of care. A Robert Wood Johnson Foundation report found that, to achieve a 3.2 percent reduction in deaths from heart disease through treatment rather than prevention, the average metropolitan community would need to hire an additional 27 primary care physicians. This would come at a cost of an additional $5.5 million—more than 27 times the public health investment—and is infeasible at a time when there are shortages of primary care physicians.[48] By comparison, the report found that the average metropolitan community would need to spend $312,274 more on public health prevention efforts per year to achieve a 3.2 percent drop in the rate of cardiovascular disease mortality.

Currently, there are several movements underway to regulate the food industry. In addition to the voluntary food sodium limits in New York City, a January 2012 study in *Health Affairs* found that a penny-per-ounce excise tax on sugar-sweetened beverages could reduce soda consumption by 15 percent among adults 25 to 64, prevent 2.4 million Americans from developing diabetes by 2020 and cut health care costs by $17 billion.[49] It also predicted that such a tax could prevent 95,000 coronary heart events,



NYC Department of Health and Mental Hygiene, Bureau of Vital Statistics 2011
Note: New York City data have been revised by using interpolated population estimates based on 2010 census counts and are different from previously published. * Data for 2009 are preliminary.

8,000 strokes, and 26,000 premature deaths. The city council in Richmond, California, is considering a new licensing fee on businesses that sell soda.[50] In September 2012, the New York City Board of Health approved a ban on selling super-size (those above 16 ounces) sugared soft drinks in restaurants, concessions and other eateries.

Policy Recommendations

A May 2012 Institute of Medicine report calls for the creation of food and beverage environments that ensure healthy food and drink options, particularly in schools. The report calls for food manufacturers that market to children to adhere to voluntary federal guidelines for nutrition to reduce obesity. Finally, the report calls for Congress to "dedicate substantial funds" to social marketing campaigns designed to encourage physical activity and better nutrition.[51]

A November 2011 report by the Campaign for Tobacco-Free Kids and other public health organizations found that states have reduced the amount of money they spend on tobacco prevention programs in the last four years by 36 percent.[52] States are spending only 1.8 percent of the money they collect from tobacco taxes on tobacco prevention and cessation programs. In the period of greatest spending, there was a commensurate decrease in number of people smoking and number of people who started smoking.[53] The CDC recommends $3.7 billion in annual funding to support state tobacco prevention programs. The Institute of Medicine endorsed this recommendation.

"The data shows very directly that there is a proportional relationship between the amount that states spend on their tobacco prevention programs and their success in reducing tobacco use," said Matthew Myers, president of Campaign for Tobacco-Free Kids. "There is a real cause for concern that we are no longer doing the things that have had the greatest effect as we move forward."[54]

The Institute of Medicine suggested in April 2012 that, in order to close the health outcome gap between the United States and other countries in the next 20 years and reach new life expectancy and per-capita spending and outcome goals, Congress should double its appropriations for public health programs to $24 billion.[55] Such a goal could be met with a tax on health care transactions, the report argued.[56]

"Public health problems require multi-level, multi-sectorial solutions," said Ursula Bauer, PhD, MPH, director of the National Center for Chronic Disease Prevention and Health Promotion at the U.S. Centers for Disease Control and Prevention. "Working together in these areas we will improve health, quality of life and life expectancy for Americans, and we will reduce the need for health care and better control our health care costs."[57]

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The Alliance is a nonpartisan, not-for-profit group committed to the education of journalists, elected officials and other shapers of public opinion, helping them understand the roots of the nation's health care problems and the trade-offs posed by various proposals for change.

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Selected Websites

Alliance for Health Reform	www.allhealth.org
American Medical Association	www.ama.org
Campaign for Tobacco-Free Kids	www.tobaccofreekids.org
Center on Budget and Policy Priorities	www.cbpp.org
Centers for Disease Control and Prevention	www.cdc.gov
Congressional Budget Office	www.cbo.gov
Institute of Medicine	www.iom.edu
Robert Wood Johnson Foundation	www.rwjf.org
STOP Obesity Alliance	www.stopobesityalliance.org
Trust for America's Health	www.healthyamericans.org

For additional experts and websites on this and other subjects, go to www.allhealth.org

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