



# Return on Investments in Public Health: A Summary of Groundbreaking Research Studies

## Background

The Patient Protection and Affordable Care Act (PL 111-148) included the creation of the Prevention and Public Health Fund, a 10-year, \$15 billion commitment to support programs, medical screenings, and research related to public health and prevention.

Mandatory funding for this groundbreaking initiative includes \$5 billion between Fiscal Year (FY) 2010 and FY2014, with an additional \$10 billion between FY2015 and FY2019. The fund is designed to be ongoing, so funding will continue beyond FY2019. Since its creation, \$1.25 billion has already been appropriated for FY2010 (\$500 million)<sup>1</sup> and FY2011 (\$750 million).<sup>2</sup>

This funding will be distributed to programs aligned with the National Prevention and Health Promotion Strategy, our country's first-ever comprehensive action plan for improving the health of all Americans. The Strategy outlines four overarching areas on which the nation's prevention efforts should focus: building healthy and safe communities; expanding quality preventive services in both clinical and community settings; empowering people to make healthy choices; and eliminating health disparities.<sup>3</sup>

This national commitment to and investment in preventing disease before it occurs is in line with evidence from a variety of recent reports and studies indicating that strategic investments in proven, community-based prevention programs could result in significant U.S. health care cost savings and overall economic cost savings. This brief summarizes the findings and recommendations from four major studies released between 2008 and 2011.

## Key Findings and Recommendations

- **A July 2011 study published in the journal *Health Affairs* found that increased spending by local public health departments can save lives currently lost to preventable illnesses.**<sup>4</sup> Researchers Glen P. Mays and Sharla A. Smith mapped spending by local public health agencies from 1993-2005 with preventable mortality rates in each agency's respective jurisdiction. The report found:

### FAST FACTS

#### Health Care Spending in the United States

- Chronic conditions such as heart disease, cancer, stroke and diabetes are responsible for seven in 10 deaths among Americans each year, and account for nearly 75 percent of the nation's health spending.<sup>8</sup> More than 40 percent of the population has more than one chronic health condition.<sup>9</sup>
- Preventing disease and injury is the most cost-effective, common-sense way to improve health in the United States. Too often, however, the health care system focuses more on treating disease and injury after they happen. America spends more than \$2 trillion annually on health care—more than any other nation.
- The United States spends hundreds of billions of dollars annually to treat preventable illnesses and diseases. For instance, health care expenditures tied just to smoking total \$96 billion.<sup>10</sup> Costs associated with conditions caused by obesity are also astronomical, including nearly \$17 billion for diabetes and more than \$43 billion for hypertension.<sup>11</sup>
- For every dollar spent on health care in the United States today, only about four cents goes towards public health and prevention.<sup>12</sup>



- On average, local public health spending rose from \$34.68 per capita in 1993 to \$40.84 per capita in 2005 – an increase of more than 17 percent.
- For each 10 percent increase in local public health spending, there were significant decreases in infant deaths (6.9 percent drop), deaths from cardiovascular disease (3.2 percent drop), deaths from diabetes (1.4 percent drop), and deaths from cancer (1.1 percent drop).
- The 3.2 percent decrease in cardiovascular disease mortality cited above required local health agencies to spend, on average, an additional \$312,274 each year. In contrast, achieving the same reduction in deaths from cardiovascular disease by focusing on treatment and other traditional health *care* approaches would require an additional 27 primary care physicians in the average metropolitan community. To put this comparison in perspective, the median salary for a single primary care physician was \$202,392 in 2010 – as a result, 27 primary care physicians would cost nearly \$5.5 million, or more than 27 times the public health investment.<sup>5</sup>
- **Recommendation: Sustain public health investments to improve community health outcomes and reduce medical costs in the long-term. Additional public health spending would be expected to generate substantial health improvements over time.**
- **A 2011 Urban Institute study concluded that it is in the nation’s best interest from both a health and economic standpoint to maintain funding for evidence-based, public health programs that save lives and bring down costs.** Authors Timothy Waidmann, Barbara Ormond and Randall Bovbjerg examined the financial costs and health ramifications of ignoring disease prevention. The study found:
  - The American health care system currently spends \$238 billion per year in “excess costs” – defined as the difference between the cost of care for people with preventable chronic disease and those without – to treat people with type 2 diabetes, hypertension, heart disease and stroke. More than half of those costs are financed through Medicare and Medicaid. Left unchecked, those excess costs would rise to \$466.5 billion per year by 2030, with nearly \$300 billion financed by Medicare and Medicaid.
  - By 2030, if current trends continue for chronic diseases among all persons ages 45-64, one-third will have hypertension, more than one-quarter will have diabetes, more than 11 percent will have heart disease, and nearly two percent will have strokes. Similar prevalence rate increases can be expected for persons ages 65 or

## POLICY PERSPECTIVE

### Community Transformation Grants

- Community Transformation Grants<sup>13</sup> (CTG’s) were announced in May 2011 by the Department of Health and Human Services as the newest component of the Prevention and Public Health Fund.
- CTG’s are aimed at helping communities implement projects proven to reduce chronic diseases.
- An initial \$103 million in grant funding was awarded to 61 states and communities in September 2011<sup>14</sup> to support the following priority areas: tobacco-free living; active living and healthy eating; and quality clinical and other preventive services, with a specific focus on controlling high blood pressure and high cholesterol.
- Of the 61 grantees – which are located in 36 states and serve a combined 120 million residents – 35 will implement proven health and wellness interventions, while 26 will work to lay a foundation for sustainable community prevention efforts.



older – in particular, more than half of persons in this age group will have diabetes and/or hypertension. These increases will affect not just public sector budgets but private sector costs and competitiveness.

- Slowing the rate of growth of these chronic diseases will save lives and money. For instance, cutting the rate of chronic disease growth by even five percent would save Medicare and Medicaid \$5.5 billion per year by 2030; cutting the rate of chronic disease growth by 25 percent would save \$26.2 billion per year; and cutting the rate of chronic disease growth by 50 percent would save \$48.9 billion per year.
  - Investments in primary prevention programs will not only help slow the chronic disease rate, but have also been shown to lower private insurance costs and improve economic productivity while reducing worker absenteeism. In fact, savings achieved through prevention programs can significantly and quickly outweigh initial, upfront investments.
  - **Recommendation: Preserve and sustain primary prevention programs for chronic diseases in order to save lives and reduce costs.**
- **A May 2011 study published in *Health Affairs* showed that a combination of three strategies – expanding health insurance coverage, delivering better preventive and chronic care, and focusing on “protection” (a specific prevention strategy defined as enabling healthier behavior and safer environments) – is more effective at saving lives and money than implementing any one of these strategies alone.** A team of researchers led by Bobby Milstein tested all three strategies in a dynamic simulation model of the United States health care system. The report<sup>6</sup> found:
    - While all three strategies save lives and improve economic conditions, insurance coverage and medical care for chronic conditions lead to an increase in health costs.
    - Of the three, only the preventive steps taken through protection efforts slow the growth in the prevalence of disease and injury, alleviating the demand on limited primary care capacity.
    - Adding preventive protection elements to an expansion of insurance coverage and medical care could save 90 percent more lives and reduce costs by 30 percent within 10 years; those figures rise to 142 percent and 62 percent, respectively, within 25 years.
    - **Recommendation: Ensure that efforts to protect health and encourage healthy behavior– are a core element of disease prevention.**

## PREVENTION AND PUBLIC HEALTH INITIATIVES

### Program Success Stories

- The U.S. Diabetes Prevention Program screens adults at high risk for developing diabetes. Early results have shown that such screening can reduce the incidence rate of diabetes by more than 50 percent. These interventions have also resulted in weight loss, increased physical activity and improved eating habits.
- Smoking cessation programs that have included referrals to a community-based “quitline” and expanded clinician counseling have shown to be more successful than traditional, less intensive cessation strategies.
- Early diagnosis and treatment of HIV-positive persons with oral antiretroviral medicines reduced HIV transmission by 96 percent. The conclusions were so clear that researchers ended the study early.



- **In 2008, Trust for America's Health and the Robert Wood Johnson Foundation released a report showing that an investment of \$10 per person annually in proven, community-based public health programs could save the United States more than \$16 billion within five years—a \$5.60 return for every \$1 invested.** The report – based on a model developed by researchers at the Urban Institute and a review of studies conducted by the New York Academy of Medicine – focused on community-based disease prevention programs that do not require medical care. Additional findings<sup>7</sup> included:
  - The \$16 billion in savings would be spread through Medicare (\$5 billion), Medicaid (\$1.9 billion), and private payers (\$9 billion).
  - Every state in the nation would be on the receiving end of potential return on investment within that five-year period, ranging from a rate of 3.7 to 1 at the low end to 9.9 to 1 on the high end.
  - **Recommendation: As a significant cost-savings measure, policymakers at all levels of government should invest in disease prevention programs that are separate and distinct from those that require traditional medical care.**

## Endnotes

- 1 <http://www.hhs.gov/news/press/2010pres/06/20100618g.html>
- 2 <http://www.hhs.gov/news/press/2011pres/02/20110209b.html>
- 3 <http://www.healthcare.gov/center/councils/nphpphc/strategy/report.pdf>
- 4 <http://content.healthaffairs.org/content/early/2011/07/19/hlthaff.2011.0196.full.pdf+html>
- 5 <http://www.mgma.com/physcomp/>
- 6 <http://content.healthaffairs.org/content/early/2011/07/19/hlthaff.2011.0196.full.pdf+html>
- 7 <http://healthyamericans.org/reports/prevention08/Prevention08.pdf>
- 8 <http://www.healthreform.gov/newsroom/preventioncouncil.html>
- 9 <http://healthreformgps.org/resources/chronic-disease-management/>
- 10 <http://www.tobaccofreekids.org/research/factsheets/pdf/0072.pdf>
- 11 <http://chronicdiseaseimpact.org>
- 12 <http://healthyamericans.org/assets/files/TFAH%202010Top10PrioritiesDiseasePrevention.pdf>
- 13 <http://www.hhs.gov/news/press/2011pres/05/20110513b.html>
- 14 <http://www.hhs.gov/news/press/2011pres/09/20110927a.html>
- 15 <http://www.hhs.gov/recovery/programs/cppw/granteesbystate.html>

## PREVENTION AND PUBLIC HEALTH INITIATIVES

### Community Policy and Program Success Stories<sup>15</sup>

#### Active living and school nutrition in Alabama

In Jefferson County, prevention funds were used to develop walkable greenways and other open spaces, and promote exercise as medicine through employer-sponsored flexible spending accounts. The Jefferson County Public Schools also initiated a program to contract with local growers to add local produce as part of school lunches – 56 county schools are now participating in the program.

#### Tobacco reduction in Georgia

The Dekalb County Board of Health unanimously passed a resolution endorsing a smoke-free air ordinance, while Oglethorpe University signed a formal agreement to make all of its campuses tobacco-free. Prevention funds will be used to enhance smoking cessation programs and to support pricing strategies designed to decrease tobacco usage.

#### Healthy foods in Kentucky

In Louisville, the Healthy Hometown Restaurant Initiative has led to the calculation and printing of calories information of menu items at 18 restaurants that serve more than 435,000 people. Additionally, Jefferson County Public Schools used grant funding to create a Community Action plan that will reduce sodium and sugar in school meals, and increase the amount of food brought into schools by local farmers and through school gardens.