



# Return on Investments in Public Health: Saving Lives and Money

## Background

America spends \$2.7 trillion annually on health care—more than any other nation.<sup>1</sup> Too often, however, the health care system focuses more on treating disease and injury after they happen. The United States spends hundreds of billions of dollars annually to treat preventable illnesses and diseases. For instance, health care expenditures tied to smoking total \$96 billion.<sup>2</sup> Costs associated with conditions caused by obesity include more than \$43 billion for hypertension and nearly \$17 billion for diabetes.<sup>3</sup>

Part of the reason the United States spends so much on health care is that millions of Americans are in poor health. 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>4</sup> Approximately 45 percent of the population has at least one chronic health condition.<sup>5</sup>

Creating a culture of health in the United States requires a commitment to prevention. Preventing disease and injury is the most cost-effective, common-sense way to improve health; despite this fact, for every dollar spent on health care in the United States today, only about four cents goes towards public health and prevention.<sup>6</sup> A variety of recent reports and studies show that strategic investments in proven, community-based prevention programs save lives and money. This brief summarizes the findings from major studies on public health and prevention released between 2008 and 2013.

## Key Findings

- **A 2011 study published in *Health Affairs* found that increased spending by local public health departments can save lives currently lost to preventable illnesses.**<sup>7</sup> Researchers mapped spending by local public health agencies from 1993-2005 with preventable mortality rates in each agency's respective jurisdiction. The study found:
  - 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>8</sup>
  
- **A follow-up to this study presented at the 2013 American Public Health Association Annual Meeting found that low-income communities experience the largest health and economic gains with respect to increases in local public health spending.** Researchers again examined spending by local public health agencies to determine the specific types of communities that benefit most from additional public health investments. The study<sup>9</sup> found:
  - The health and economic effects of public health spending were 21-44 percent larger in low-income communities (bottom 20 percent) as compared to the average community.
  
  - Lower death rates and health care costs were seen especially in communities that allocated their public health funding across a broader mix of preventive services
  
- **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.** Researchers examined the financial costs and health ramifications of ignoring disease prevention. The study<sup>10</sup> 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 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.
- **A 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 community prevention is more effective at saving lives and money than implementing any one of these strategies alone.** Researchers tested all three strategies in a dynamic simulation model of the United States health care system. The study<sup>11</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 those steps related to prevention slow the growth in the prevalence of disease and injury, alleviating the demand on limited primary care capacity.
  - Adding community prevention elements—such as reducing exposure to secondhand smoke and offering more opportunities for physical activity—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.



- **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>12</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.

## Endnotes

- 1 <http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NHE-Fact-Sheet.html>
- 2 <http://www.tobaccofreekids.org/research/factsheets/pdf/0072.pdf>
- 3 <http://chronicdiseaseimpact.org>
- 4 <http://www.healthreform.gov/newsroom/preventioncouncil.html>
- 5 [http://www.nationalhealthcouncil.org/NHC\\_Files/Pdf\\_Files/AboutChronicDisease.pdf](http://www.nationalhealthcouncil.org/NHC_Files/Pdf_Files/AboutChronicDisease.pdf)
- 6 <http://healthyamericans.org/assets/files/TFAH%202010Top10PrioritiesDiseasePrevention.pdf>
- 7 <http://content.healthaffairs.org/content/early/2011/07/19/hlthaff.2011.0196.full.pdf+html>
- 8 <http://www.mgma.com/physcomp/>
- 9 [http://works.bepress.com/glen\\_mays/119/](http://works.bepress.com/glen_mays/119/)
- 10 <http://www.urban.org/UploadedPDF/412429-The-Role-of-Prevention-in-Bending-the-Cost-Curve.pdf>
- 11 <http://content.healthaffairs.org/content/30/5/823.full.pdf+html>
- 12 <http://healthyamericans.org/reports/prevention08/Prevention08.pdf>