

# Public Health and Chronic Disease

## Cost Savings and Return on Investment

**Chronic diseases are the leading cause of death and disability in the U.S. and among the most costly and preventable.**

Public health—the practice of preventing disease and promoting health—effectively targets environmental factors and health behaviors that contribute to chronic conditions. The health risk factors of physical inactivity, tobacco use and exposure and poor nutrition are the leading causes of chronic disease. With even a small reduction in the prevalence of chronic disease, the combined health and productivity cost savings of prevention lead to a positive return on investment within a short time.<sup>1</sup>

### Get the Facts

#### Population Burden

- **Almost one out of every two U.S. adults—107 million people—reported having at least one of six chronic illnesses—cardiovascular disease, cancer, chronic obstructive pulmonary disease, asthma, diabetes or arthritis—in 2008.**<sup>2</sup>
- Seven out of 10 deaths among Americans each year are from chronic diseases. Heart disease, cancer and stroke account for more than 50% of all yearly deaths.<sup>3</sup>
- Diabetes is the leading cause of kidney failure, non-injury lower-limb amputations and blindness among 20 to 74 year-olds.<sup>3</sup>
- About 13.6 million adults have been diagnosed with COPD, and an equal number remain undiagnosed.<sup>4</sup>
- One in three U.S. adults—63 million people—have hypertension or high blood pressure. Nearly 70% of first heart attacks and 77% of first strokes occur in people with hypertension.<sup>5</sup>

#### Economic Cost

- Obesity, which can lead to heart disease, stroke, type 2 diabetes and cancer, costs the U.S. \$147 billion annually in 2008 dollars.<sup>6</sup> By 2030, medical costs associated with obesity are expected to increase by at least \$48 billion annually, with the annual loss in economic productivity totaling \$390 billion to \$580 billion.<sup>7</sup>
- From 2000 to 2004, smoking cost the U.S. about \$193 billion—nearly \$96 billion in direct medical costs and \$97 billion in lost productivity. Smoking causes lung diseases such as COPD, cancer, heart disease and stroke.<sup>8</sup>
- **The five most costly and preventable chronic conditions cost the U.S. nearly \$347 billion—30% of total health spending—in 2010.**<sup>9</sup>

Chronic Condition	Health Care Costs <sup>+9</sup>	Lost Productivity Costs
Heart conditions	over \$107 billion	nearly \$95 billion <sup>++10</sup>
Cancer	nearly \$82 billion	nearly \$135 billion <sup>+++11</sup>
COPD/Asthma	nearly \$64 billion	over \$14 billion <sup>++10</sup>
Diabetes	over \$51 billion	\$69 billion <sup>++++12</sup>
Hypertension	nearly \$43 billion	\$25 billion <sup>+13</sup>

+ 2010 data ++ 2008 data +++ 2005 data ++++ 2012 data

## Potential Cost Savings and Return on Investment

**Effective public health interventions and policies that target chronic diseases lead to a healthier population with lower health care spending, less school and workplace absenteeism, increased economic productivity and an improved quality of life.** By investing in prevention and treatment of the most common chronic diseases, the U.S. could decrease treatment costs by \$218 billion per year and reduce the economic impact of disease by \$1.1 trillion annually.<sup>14</sup> Data supports making an investment in prevention:

- By improving preventive screening and implementing programs that reduce risk factors, the U.S. could save \$26 billion in lost productivity costs from colorectal cancer deaths by 2020.<sup>15</sup>
- For every \$1 invested in the truth<sup>®</sup> anti-smoking campaign, the U.S. saved more than \$6.80.<sup>16</sup> The truth<sup>®</sup> campaign decreased youth smoking by 22% from 1999 to 2002 and averted \$1.9 billion in future health care costs.<sup>17</sup>
- Every \$1 spent on evidence-based programs that increase physical activity, improve nutrition and prevent tobacco use saves \$5.60 in health spending within five years and up to \$6.20 within 10 years.<sup>18</sup>
- For every \$1 spent on tobacco cessation programs, the average return is \$1.26. In one year, the U.S. could save more than \$711 million.<sup>19</sup>
- Every \$1 spent on workplace wellness, decreases medical costs by about \$3.27 and increases productivity, with absenteeism costs decreasing by about \$2.37.<sup>20</sup>
- Making all workplaces smokefree would save almost \$60 million in direct medical costs, generate about 1.3 million new quitters in one year and prevent about 1,500 heart attacks and 350 strokes.<sup>21</sup>

<sup>1</sup>Urban Institute, *The Role of Prevention in Bending the Cost Curve, 2011* ~ <sup>2</sup>Healthy People 2020, *General Health Status, 2011* ~ <sup>3</sup>Centers for Disease Control and Prevention (CDC), *Chronic Diseases and Health Promotion, 2012* ~ <sup>4</sup>Healthy People 2020, *Respiratory Diseases Overview, 2012* ~ <sup>5</sup>CDC, *High Blood Pressure Facts, 2012* ~ <sup>6</sup>CDC, *Overweight and Obesity Facts, 2012* ~ <sup>7</sup>Trust for America's Health (TFAH), *F as in Fat: How Obesity Threatens America's Future 2012, 2012* ~ <sup>8</sup>CDC, *Morbidity and Mortality Weekly Report, Smoking-Attributable Mortality, Years of Potential Life Lost, and Productivity Losses — United States, 2000-2004, 2008* ~ <sup>9</sup>Agency for Healthcare Research and Quality, *Medical Expenditure Panel Survey—Table of Total Expenses, 2010* ~ <sup>10</sup>National Institutes of Health, *Morbidity & Mortality: 2012 Chart Book on Cardiovascular, Lung, and Blood Diseases, 2012* ~ <sup>11</sup>National Cancer Institute, *Costs of Cancer Care, 2012* ~ <sup>12</sup>American Diabetes Association, *The Cost of Diabetes, 2012* ~ <sup>13</sup>Heidenreich, PA, et al., *Forecasting the Future of Cardiovascular Disease in the U.S.: A Policy Statement from the American Heart Association, Circulation, 123(8):933-44, 2011* ~ <sup>14</sup>Milken Institute, *An Unhealthy America: Economic Burden of Chronic Disease, 2007* ~ <sup>15</sup>Bradley, CJ, et al., *Productivity Savings from Colorectal Cancer Prevention and Control Strategies, American Journal of Preventive Medicine, 41(2):e5-e14, 2011* ~ <sup>16</sup>P.R. Newswire, *truth<sup>®</sup> Campaign Can Save Half a Million Lives and Billions of Dollars, 2009* ~ <sup>17</sup>Holtgrave, D, et al., *Cost-Utility Analysis of the National truth<sup>®</sup> Campaign to Prevent Youth Smoking, American Journal of Preventive Medicine, 36(5):385-8, 2009* ~ <sup>18</sup>TFAH, *Prevention for a Healthier America: Investments in Disease Prevention Yield Significant Savings, Stronger Communities, 2009* ~ <sup>19</sup>American Lung Association, *Smoking Cessation: The Economic Benefits, 2013* ~ <sup>20</sup>Altarum Institute, *Enabling Employee Wellness: What Do We Know About What Works?, 2011* ~ <sup>21</sup>Ong, MK, & Glantz, SA. *Cardiovascular Health and Economic Effects of Smoke-free Workplaces, American Journal of Medicine, 117(1): 32-38, 2004*