



NATIONAL ASSOCIATION OF  
**CHRONIC DISEASE DIRECTORS**  
Promoting Health. Preventing Disease.

## **Progress in Health**

### **It's Time to Get Serious about Preventing Chronic Disease**

The dialogue today regarding healthcare in America is focused almost exclusively on the medical care we receive and how we pay for it. This narrow outlook ignores the importance and potential of supporting good health and prevention of disease, or the complications of disease. In 2014 per capita national health expenditures were \$9,523, with total national health expenditures reaching \$3.0 trillion.<sup>1</sup> If current policies and conditions hold true, our nation's health care spending is expected to increase at an average rate of 5.8 percent per year through the year 2025.<sup>2</sup>

At the turn of the 20<sup>th</sup> century, the major causes of death and disease were markedly different from today. Today the challenges from infectious diseases such as tuberculosis, diarrhea and similarly transmitted diseases have been far surpassed by chronic diseases such as diabetes, heart disease & stroke, and cancer. As a result of this epidemiologic transition, increased life expectancy and advances in public health and medicine have significantly impacted population health.

- Seven out of ten people die of a chronic disease.<sup>3</sup>
- Two chronic diseases—heart disease and cancer—caused nearly 48% of all deaths in 2012.<sup>3</sup>
- Those who die of chronic diseases before age 65 lose a third of their potential lives.<sup>4</sup>

However, deaths alone do not convey the full impact of chronic disease. These serious diseases, by definition, are often lifelong conditions that are treatable but not curable. An even greater burden befalls Americans from the disability and diminished quality of life resulting from chronic disease. This burden is shared by adults, adolescents and children of all ages and the attendant economic impact is borne primarily by taxpayers and employers.

- As of 2012, over 117 million Americans, accounting for about half of all adults, have at least one chronic condition.<sup>3</sup>
- Diabetes is the leading cause of kidney failure, lower-limb amputations, and new cases of blindness among adults.<sup>3</sup>
- Arthritis is the number one cause of disability, with over 53 million adults diagnosed and at least 40% of those experiencing trouble performing their usual activities.<sup>3</sup>
- Each year, more than 795,000 Americans experience a stroke, and it is a leading cause of disability that can hinder the performance of daily tasks, such as walking or bathing, without help.<sup>5</sup>

Almost every family is adversely affected by chronic diseases in one way or another: through the death of a loved one, family members with life-long illness, disability, or compromised quality of life, or the huge personal, financial, and community burden wrought by these diseases.

When we measure our nation's health not just by the length of life, but by the quality of that life, we cannot ignore the urgency of chronic disease. Taken in its entirety, chronic diseases account for more than 86% of the nation's health care costs.<sup>3</sup>

As a nation, we have emphasized expensive cures for disease rather than cost-effective prevention of disease. At the heart of our system is the traditional physician-patient interaction. While effective, these interactions occur infrequently at best and typically last no longer than 30 minutes. Whether sick or well, an individual spends far more time living in other environments (school, work, neighborhood), making independent decisions that affect his or her health and he or she does so with minimal training or information. This is particularly true of the 33 million Americans who are uninsured and have limited access to health care services.<sup>6</sup>

### ***Let's Face the Facts:***

- When we realize that over 86% of all our healthcare costs relate to chronic diseases, and much of that cost is preventable;<sup>3</sup>
- When we realize that America is ranked 37<sup>th</sup> on level of health performance by the World Health Organization, but we are first by far in the amount we spend;<sup>7</sup>
- When we realize that we are overweight as a people - beginning with young children, and the environments we create for ourselves are a major factor;
- When we realize that one in three U.S. adults will have diabetes by 2050- as compared to the current statistic of one in ten U.S. adults with diabetes now;<sup>3</sup>
- When we realize that half of Americans have one or more chronic health conditions and that a quarter of Americans have two or more chronic conditions;<sup>3</sup>
- and when we realize that we are our own worst enemy when it comes to our health;

## *The Answer is Clear: Change is Overdue.*

We have created a culture where the healthy choice is often the hardest choice at every stage of our lives.

We know we need to eat better, be more active and avoid tobacco - but we're cutting back on recess and physical education, cutting back on the ability to be active in our everyday lives and tobacco is still all too available, especially to children.

Good, healthy food options are more available today, but not everywhere - and not for everyone.

We spend more on treating chronic diseases after diagnosis, instead of making proactive investments in our health to prevent or mitigate the effects of these diseases.

The minimal investment in chronic disease prevention and control at CDC and state and community based programs supported by CDC has resulted in the development of an extensive portfolio of strategies that work. We have lists of cost-effective strategies that work for early detection of cancer, prevention and control of diabetes, reduction of heart disease and stroke, reduction of the disability associated with all these conditions and arthritis as well ([www.chronicdisease.org](http://www.chronicdisease.org)). The state success stories on the referenced web page are just the tip of the iceberg. The school district in upstate New York that focused on wellness realized a savings on health insurance costs in the first year. The community in North Carolina that made a concerted effort to fight diabetes and other chronic disease realized substantial reduction across the board. The Healthy Community Movement led by groups like the Robert Wood Johnson Foundation, YMCA, National Association of Chronic Disease Directors, America on the Move and others, supported and evaluated by CDC, state health departments, and academia has begun to have an impact in the places where focused efforts are in action.

But this isn't enough - not by a long stretch. If we are serious about improving the lives of Americans, having an impact on healthcare costs, reforming our system, reducing disparities - we need to invest in prevention in a meaningful way.

## *Bringing Chronic Disease Prevention Up to Scale*

Only a fraction of our governmental healthcare investment goes to prevention. This is a crime when we know better. The next administration will have an opportunity to change this picture.

First, there needs to be a substantial investment in CDC's National Center for Chronic Disease Prevention and Health Promotion. This small part of the federal government is the locus of activity that has provided the science and hope we need for the future. The investment needs to be such that every state has a cadre of evidenced-based programs to fight chronic disease. These must all include:

Early Detection of Cancer and Cancer Survivorship Services  
Diabetes Prevention and Control (including prevention of kidney disease)  
Heart Disease and Stroke Prevention  
Obesity Prevention and Control (including both nutrition and physical activity)  
School Health and Oral Health Programs  
Healthy Community Programs (including Nutrition and Obesity Initiatives - Steps, REACH, others)  
Tobacco Prevention and Control  
Arthritis Prevention and Control  
Healthy Aging (including Alzheimer's Disease)

At a time when our investment in housing, education, and medical care has each outstripped inflation, our investment in prevention has lagged far behind. Today we fund prevention efforts at approximately the same amount we did in 2001.

### ***Important Opportunities***

America is on the precipice of a great opportunity; we need to invest in a meaningful way in prevention now. The place to start is at CDC, with the state-based programs mentioned above. In addition to these evidenced-based programs, CDC could become home to a new Prevention Innovation Center based on the model of CMS. Partnering with states, CDC can accelerate building programs that work and develop evidence for new changes in healthcare; health/community linkages; Medicaid/Public Health partnerships; and linkages between health and economic development. Additionally now is the right time to develop a comprehensive program to promote physical activity in this country and CDC is in a position to address the epidemic of sedentary behavior that impacts our health, our economy, the health of an aging population and our defense.

Each of these categories is tailor-made for federal/state partnerships and can utilize state projects as laboratories for innovation and movement forward to a healthier nation.

### **Examples of Impact**

#### **Chronic disease prevention and control programs save lives and money!**

#### **Diabetes**

Healthcare costs for a person with diabetes are about \$13,700/year, which is on average 2.3 times higher than expenditures are for persons without diabetes.<sup>9</sup> For every one point reduction in HbA1c (a measure of blood sugar over time), a 37% reduction in microvascular complications is reported (blindness, kidney disease, nerve damage), as well as a 14% reduction in incidence of myocardial infarction.<sup>10</sup> Additionally, there is a difference of almost \$3,000 for direct medical costs when comparing patients with the recommended hemoglobin A1c levels of less than 7% with patients at levels greater than or equal to 7%.<sup>11</sup> Public Health Diabetes Prevention and Control Programs contribute

substantially to the prevention and effective management of diabetes, which can significantly reduce the financial burden to individuals and communities.

## Heart Disease and Stroke

In over 52% of Americans with hypertension, blood pressure is poorly controlled.<sup>12</sup> Public Health Heart Disease and Stroke Prevention is essential to providing services to reduce the risk and costs of these incidents. A 12-13 point reduction in systolic blood pressure can reduce heart disease risk by 21% and stroke risk by 37%, and risk for death from either ailment by 25%.<sup>13</sup> In addition to the individual and family devastation, a heart attack costs insurers an average of \$38,501 in the first following 90 days.<sup>14</sup> With aggressive professional education, early risk identification, risk reduction and treatment, these events are often preventable.

## Cancer

Public Health early detection programs for breast and cervical cancer have been responsible for identifying many thousands of cancers in early stages, when treatment is more effective and less expensive. For example, the average cost of treating early stage breast cancer is about \$22,000, while treatment for stages 3 and 4 of breast cancer can exceed \$120,000.<sup>15</sup> Treatment of early stage cervical cancer ranges from \$1,264-\$3,438, while diagnosis at a late stage means more intense treatment that may not be as effective and costs \$17,645-\$45,540.<sup>16</sup>

*Public health programs work to improve care, prevent disease, and prevent complications of disease. An investment in chronic disease prevention and control programs saves lives, improves quality of life and saves healthcare dollars.*

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<sup>1</sup> Health expenditures. Centers for Disease Control and Prevention Web site. <http://www.cdc.gov/nchs/fastats/health-expenditures.htm> Updated July 6, 2016. Accessed August 8, 2016.

<sup>2</sup> NHE fact sheet. Centers for Medicare and Medicaid Services Web site. <https://www.cms.gov/research-statistics-data-and-systems/statistics-trends-and-reports/nationalhealthexpenddata/nhe-fact-sheet.html> Updated August 9, 2016. Accessed August 9, 2016.

<sup>3</sup> Chronic disease overview. Centers for Disease Control and Prevention Web site. <http://www.cdc.gov/chronicdisease/overview/> Updated February 23, 2016. Accessed August 8, 2016.

<sup>4</sup> Chronic disease prevention. Centers for Disease Control and Prevention Web site. <http://www.cdc.gov/program/performance/fy2000plan/2000vii.htm> Updated June 30, 2011. Accessed August 8, 2016.

<sup>5</sup> Stroke facts. Centers for Disease Control and Prevention Web site. <http://www.cdc.gov/stroke/facts.htm>

<sup>6</sup> <http://www.census.gov/newsroom/press-releases/2015/cb15-157.html> Updated March 24, 2015. Accessed August 8, 2016.

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- <sup>7</sup> World Health Organization assesses the world's health systems. World Health Organization Web site. [http://www.who.int/whr/2000/media\\_centre/press\\_release/en/](http://www.who.int/whr/2000/media_centre/press_release/en/) Published June 21, 2000. Accessed August 8, 2016.
- <sup>3</sup> Number of Americans with diabetes projected to double or triple by 2050. Centers for Disease Control and Prevention Web site. <https://www.cdc.gov/media/pressrel/2010/r101022.html> Updated October 22, 2010. Accessed August 8, 2016.
- <sup>9</sup> The cost of diabetes. American Diabetes Association Web site. <http://www.diabetes.org/advocacy/news-events/cost-of-diabetes.html> Updated June 22, 2015. Accessed August 8, 2016.
- <sup>10</sup> Housden L, Wong ST, Dawes M. Effectiveness of group medical visits for improving diabetes care: a systematic review and meta-analysis. *CMAJ*. 2013; 185(13): E635-E644.
- <sup>11</sup> Juarez DT, Goo R, Tokumaru S, Sentell T, Davis JW, Mau MM. Association between sustained glycated hemoglobin control and healthcare costs. *Am J Pharm Benefits*. 2013; 5(2): 59-64.
- <sup>12</sup> High blood pressure. Centers for Disease Control and Prevention Web site. <https://www.cdc.gov/bloodpressure/> Updated May 5, 2016. Accessed August 8, 2016.
- <sup>13</sup> Heart disease and stroke prevention: addressing the nation's leading killers. Centers for Disease Control and Prevention Web site. <http://www.cdc.gov/nccdphp/publications/aag/pdf/dhdsp.pdf> 2009. Accessed August 8, 2016.
- <sup>14</sup> Economic benefit of heart attack treatments outweigh the costs. The National Bureau of Economic Research Web site. <http://www.nber.org/digest/oct98/w6514.html> Accessed August 9, 2016.
- <sup>15</sup> Zimmerman MP, Mehr SR. Breast cancer: will treatment costs outpace effectiveness? *Am J Manag Care*. 2012; 18.
- <sup>16</sup> Subramanian S, Trogdon J, Ekwueme DU, Gardner JG, Whitmire JT, Rao C. Cost of cervical cancer treatment: implications for providing coverage to low-income women under the Medicaid expansion for cancer care. *Womens Health Issues*. 2010; 20(6): 400-405.