



NATIONAL ASSOCIATION OF **CHRONIC DISEASE DIRECTORS**

Promoting Health. Preventing Disease.

Why Public Health Is Necessary to Improve Healthcare

As the United States seeks ways to regain our economic footing and rebuild prosperity, all should be reminded of the simple but immensely important fact that the nation's collective health bears both an economic and human cost. Poor health of a population can exert tremendous force on employment rates, interest costs and other tangible factors that ultimately affect the ability to maintain a strong global economic position.

Chronic Diseases – Human and Economic Costs

Chronic disease affects health and quality of life, but it is also a major driver of health care costs and has a related impact on business such as absenteeism and presenteeism. According to the Centers for Disease Control and Prevention (CDC), chronic disease accounts for approximately 75 percent of the nation's aggregate health care spending - or an estimated \$5,300 per person in the U.S. each year. In terms of public insurance, treatment of **chronic disease** constitutes an even larger proportion of spending - 96 cents per dollar for Medicare and 83 cents per dollar for Medicaid.²

Behavioral choices that result in an increased incidence of chronic disease are also extremely costly in terms of the affordability of health care coverage. According to the Partnership to Fight Chronic Disease, since 2000, health insurance premiums for employer-sponsored family coverage have increased by 87 percent. Health care costs for people with a chronic condition average \$6,032 annually - five times higher than for those without such a condition.

Nearly half (45 percent) of all Americans suffer from at least one chronic disease. More than two-thirds of all deaths are caused by one or more of five chronic diseases: heart disease, cancer, stroke, chronic obstructive pulmonary disease, and diabetes. More than one in four Americans have multiple chronic conditions (MCC), and evidence is growing that the presence of one chronic condition has a negative impact on the risk of developing others, particularly as people age. The nation's aging population, coupled to existing risk factors (tobacco use, poor nutrition, lack of physical activity), along with medical advances, lead to the conclusion that these problems are only going to grow if they are not effectively addressed now.¹

A recent Milken Institute analysis determined that treatment of the seven most common chronic diseases, coupled with productivity losses, will cost the U.S. economy more than \$1 trillion dollars annually. The same analysis estimates that modest reductions in unhealthy behaviors could prevent or delay 40 million cases of chronic illness per year.

Much of Chronic Disease; Complications of Chronic Disease; and Related Cost are Preventable

As the American population ages, and more people are categorized as “high risk” for multiple chronic diseases, it is important to recognize that an individual’s choices have an impact – as well as where they live, attend school, and work. Risky behaviors such as poor diet, lack of physical activity, use of tobacco, and ignoring known risks like family history, result in a dramatic increase in chronic conditions. While most people do not ignore their automobile’s “check engine light”– many routinely skip their own body’s preventive maintenance warnings thus making poor choices about their health. The result is a poor collective health quality in the country that spends much more on healthcare than anywhere else in the world.

We also know there are strategies and interventions that can make a difference. The following are some examples of what has been proven to work:

Diabetes³

- Healthcare costs for a person with diabetes are over \$13,000/year; for a person without diabetes, \$2,500. For every one point reduction in HbA1c (a measure of blood sugar over time), a 40% reduction in microvascular complications is reported (blindness, kidney disease, nerve damage) and up to \$4,100 can be saved in annual healthcare costs.
- More than two thirds of persons with diabetes have high blood pressure- the risk for stroke is two to four times higher among persons with diabetes.
- DPP (Diabetes Prevention Program) efforts and education for improved diabetes management have now been proven to both improve wellbeing and reduce costs. State Public Health Diabetes Prevention and Control Programs are essential elements in the implementation and dissemination of these strategies.

Heart Disease and Stroke⁴

- In over 70% of Americans with hypertension, blood pressure is poorly controlled. A 12- 13 point reduction in systolic blood pressure can reduce heart attack risk by 21% and stroke risk by 37%. In addition to the individual and family devastation, a heart attack costs \$78,221 in the first 90 days.
- State Public Health Heart Disease and Stroke Prevention Programs provide a critical link between population-based efforts to reduce risk; community prevention efforts; and clinical care.

Cancer⁵

- Public Health early detection programs for breast and cervical cancer have been responsible for identifying thousands of cancers in early stages when treatment is more effective and less expensive.
- For example, treatment of early stage breast cancer costs \$11,000, diagnosis at a late stage means more intense treatment that may not be as effective and costs \$140,000.
- Treatment of early stage cervical cancer costs \$2,000, diagnosis at a late stage means more intense treatment that may not be as effective and costs \$30,000.
- State Public Health Breast and Cervical Cancer Screening and Education efforts have been proven to increase screening rates for at-risk populations, and often the population as a whole.

Alzheimer's Disease⁶

- Early detection, advance planning and comprehensive caregiver support has been shown to delay institutional placement for people with Alzheimer's disease for 1.5 years – while maintaining dignity, safety, and caregiver wellbeing.
- The cost differential for families and systems of home and community-based care vs. nursing home placement varies from state to state – but is substantial everywhere.
- The National Action Plan to Address Alzheimer's Disease and accompanying recommendations calls for a state lead agency to assure coordination of evidenced-based high quality services for people with dementia and their caregivers. This is consistent with recommendations of the National Association of Chronic Disease Directors' (NACDD) Healthy Aging Council. There are clear examples of strategies that improve quality of life and reduce system cost. Resources should back up the recommendation for state coordination of these efforts to implement and disseminate proven strategies.

Multiple Chronic Conditions¹

- The confluence of MCC and functional limitations, especially the need for assistance with activities of daily living, produces high levels of spending. Functional limitations can often complicate access to health care, interfere with self-management, and necessitate reliance on caregivers.
- A report by the Institute of Medicine highlighted the complexities of and the need for care coordination for individuals with multiple conditions. This coordination is often at the link between clinical medicine and public health/ community resources.
- State Public Health Chronic Disease Prevention and Control Programs, especially those that focus on critical, common risk factors such as nutrition and physical activity; tobacco use; and related behaviors are a key link to improving our nation's health. Programs focused on age groups (childhood obesity prevention, youth tobacco prevention, senior physical activity programs) are all

needed to serve as an adjunct to clinical medicine. These programs provide the venues and opportunities to help make the healthy choice the natural choice and provide reinforcement for healthy messages provided in the course of clinical care where people live, go to school, and work. These programs are the difference between hearing “you should eat better and get more exercise” from one’s doctor once a year and being in communities where healthy foods and opportunities for physical activity are the norm and part of one’s daily life.

Mays and Smith noted in Health Affairs that a 10% increase in public health spending would yield a reduced mortality rate across all causes, and a higher reduction in heart disease, diabetes, and cancer.⁸

Keys to Progress

The keys to making progress in prevention and chronic disease control are comprehensive and have been addressed in significant detail in a number of recent publications. The magnitude of our national health crisis requires more than occasional, individual visits to a primary care physician; it requires population-based public health strategies to reach people at work, school and in their communities.

Key #1 – Health in All Policies

We must assure that all public policy and responsible corporate/institutional policies consider health implications.

Key #2 – Health Promotion

Everyone needs good information, and the opportunity to make good choices. Health promotion happens in homes and communities. Decision makers need to help every community focus on making the healthy choice the easy choice.

Key #3 – Across the Age Spectrum

Promoting health isn’t for a select group. Children, working adults, parents, seniors, professionals, and policymakers all have a role in improving the nation’s collective health status.

Key #4 – Proceed Based on Science

Many examples of the evidence base are available; one recent article documents the evidence published in Health Affairs in May 2011. Milstein ET all offer a dynamic simulation model of three approaches: increased coverage; better preventive and chronic care; and enabling healthier behavior and environments (referred to as “protection”).⁷ All three are shown to result in projected savings of hundreds of thousands, if not millions, of preventable deaths while offering good economic value.

The article states, “The baseline simulation shows that when added to coverage and care, protection would save 90 percent more lives and reduce costs by 30 percent in year ten. Those benefits would be even larger in year 25, when adding protection would save about 140 percent more lives and reduce costs by 62 percent. Key factors of time and scale would impact the outcome of the simulation, but using both optimistic and pessimistic scenarios the authors found the general pattern is stable. “

Key #5 – Address Disparities

It is known that many health disparities currently exist, and that in some cases these disparities can be reduced by implementing strategies that are already known to work. Areas without known solutions should be addressed without delay.

Key #6 – Adjust the scale of resources to be proportional to the issues at CDC, State Health Departments, and other HHS agencies responsible for assuring an adequate workforce and expanding the availability of prevention and health promotion.

Bringing Resources Up to Scale

Today, only a small fraction of the United States’ governmental healthcare investment supports prevention and health promotion. States are implementing diverse, 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 of these conditions and arthritis as well (<http://www.chronicdisease.org/?page=Arthritis>). The state success stories on NACDD’s website are just the beginning. A substantial investment in the CDC, State Health Departments, and other HHS agencies must be made for a real impact. The investment needs to be such that every state in America has a full complement of evidenced-based programs to promote health and fight chronic disease, as well as the necessary resources to coordinate these programs with related activities (Medicaid, CHIP, Exchanges). These programs must include resources for every state to address:

- Early Detection of Cancer and Cancer Survivorship Services
- Diabetes Prevention and Control (including prevention of kidney disease)
- Heart Disease and Stroke Prevention
- Healthy Community Programs (ACHIEVE, REACH, others)
- Tobacco Prevention and Control
- Arthritis Prevention and Control
- School Health and Oral Health Programs
- Healthy Aging - including Alzheimer's Disease
- Improving Physical Activity and Nutrition

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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The National Association of Chronic Disease Directors (NACDD) is a non-profit Public Health organization committed to serve the chronic disease program directors of each state and U.S. jurisdiction. Founded in 1988, NACDD connects more than 3,000 chronic disease practitioners to advocate for preventive policies and programs, encourage knowledge sharing and develop partnerships for health promotion. Since its founding, NACDD has been a national leader in mobilizing efforts to reduce chronic diseases and their associated risk factors through state and community-based prevention strategies. NACDD activities help to support state efforts by:

- Providing educational and training opportunities for our members
- Developing legislative analyses, materials, policy statements and other resources
- Educating policymakers about the importance of funding for state chronic disease prevention and control efforts
- Providing technical assistance and mentoring to state public health practitioners
- Developing partnerships and collaboration with public health and scientific communities, health care providers, federal agencies, universities and the private sector to pursue common goals
- Advocating for the use of epidemiological approaches in chronic disease services planning and chronic disease data

NACDD has numerous Councils addressing the unique prevention and control efforts of specific chronic diseases while advancing the professional development of chronic disease staff with common program interests. For more information on chronic disease prevention please visit: www.chronicdisease.org