



National Prevention Science Coalition

*to improve lives*

## Prevention of Chronic Diseases Fact Sheet

### 1. Background

In the age of chronic disease, their prevention---and the prevention of unnecessary complications and ill-health among the millions who have already developed chronic diseases---poses the single greatest potential for saving healthcare dollars while significantly improving lives. They disproportionately consume resources such as health care expenses and loss of productivity (translating into lost tax revenue), having a total economic impact of \$1.3 trillion annually ([link](#); [link](#)). Many chronic diseases are linked with smoking and obesity which are largely preventable; well-researched and highly effective interventions and strategies are available. In spite of these developments, the U.S. health care system is still predominantly focused on treating rather than preventing chronic disease. The Institute of Medicine estimates that costs are \$750-\$765 billion higher than needed to attain existing outcomes given the availability of preventative options ([link](#); [link](#)).

### 2. Gaps

Federal neglect to focus on prevention is wide-ranging and hampers both states (especially Medicaid programs) and managed care organizations from using validated strategies. The NIH allocates scant resources to prevention research compared with treatment research. Some prevention strategies save money ([link](#); [link](#); [link](#); [link](#); [link](#)), whereas few treatment interventions do ([link](#)), and cost of treatment is often not even considered; e.g., Medicare policy explicitly states that costs will not determine coverage of a treatment. In contrast, despite ethical advantages and apparent contribution to quality of life ([link](#)), there are great demands for prevention to demonstrate cost savings. But even when prevention does not demonstrate cost-savings, it can be “cost-effective” ([link](#); [link](#)), providing good value in health for the money spent.

One example of a gap involves the National Diabetes Prevention Program (DPP), an evidence based intervention that has more than a decade of research and translational studies repeatedly showing---in a range of populations---that it prevents or delays the onset of type 2 diabetes for those at high risk (pre-diabetes) by almost 60%---twice as much as prescribing them standard medication. Despite this evidence-base, the Preventive Services Task Force has yet to even rate the DPP. Without this rating, most insurers, including Medicaid, will not pay for this exceedingly well proven prevention. Self-care courses well-documented to reduce complications and costs for those already suffering from chronic disease also fare badly; Medicare only partially pays for one---the well known Stanford Diabetes Self-management Program (DSMP)--and even then, its rules for obtaining partial payment are dauntingly complex.

### 3. The Science

A list of cost-saving and cost-effective prevention strategies is provided by Tuft’s Medical Center ([link](#); [link](#)). Perhaps one of the most important trends in science is the repeated evidence that two basics---an improved diet that lowers weight and blood sugar---and increased exercise, even the moderate exercise of walking 30 minutes a day, five days a week---serve as a general preventive to ill health. These steps are key to preventing heart disease, stroke, and diabetes and are also protective against certain cancers and mental depression. Most stunning, with the strongly confirmed relationships between diabetes, high blood sugar and Alzheimer’s, these steps now appear to be the single most potent natural way to prevent dementia.

Practices that promote healthy behavior and environmental conditions have the greatest potential for long-term benefits and cost savings ([link](#); [link](#)). For example, a penny-per-ounce excise tax on sugar-sweetened beverages can help prevent many deaths, avoid over \$17 billion in medical costs, and generate about \$13 billion in annual tax revenue ([link](#)). Furthermore, cost savings are more likely when targeting high-risk individuals and providing services in certain settings. For instance, an evidence-based weight loss program targeting overweight or pre-diabetic, older adults could save over \$3 billion Medicare dollars within ten years, and over \$12 billion over participants' lifetime ([link](#)). Some community-based programs have demonstrated greater effectiveness and are less costly than medical doctors' services. Risk-reduction programs at worksites are also less costly than medical treatment, can improve employee health and cost-savings to the company, and increase worker productivity ([link](#); [link](#)).

#### 4. Basic Principles

Chronic disease prevention proceeds effectively from two very different evidence bases that rely heavily on both education and availability of effective services. The first and better known strategy is government intervention aimed at wide scale or "population health" improvements. Smoking cessation is the most prominent example, while others include sugar sweetened beverage taxation, school lunch and physical education standards, bike lanes, smoke alarm regulations, and nutritional guidelines to reduce heart disease. The second strategy, far less appreciated, includes community-oriented interventions which often employ local residents who receive relatively short but tailored training to facilitate specific, evidence-based activities. Even people without high school degrees, for example, can rapidly learn to become peer educators to teach others validated self-care educational strategies. For example, the Stanford self-management programs, widely considered the best in the U.S., actually are required to be taught by peer educators. The work of doulas, or birth coaches, with one week of certified training who simply mentor the mother through birth, reduces both Cesarean deliveries and maternal depression. Similarly, lactation coaches, by increasing breast-feeding, help confer lifetime health benefits, including lowered obesity risk, on infants.

Community Health Workers, usually with about three months training, are especially effective at bridging the gap between clinical care and communities, increasing use of a range of preventive care from acceptance of colonoscopies to entry and retention in treatment for drug abuse and addiction.

It is critical for these approaches to work and be scalable that insurers, including Medicaid, recognize them as viable alternatives to the exorbitant costs to the health care system when chronic diseases eventually develop. Reimbursement for these activities, even when delivered by "non-credentialed" personnel, is recommended when the evidence supports their effectiveness.

#### 5. Human and Financial Benefits

The human and financial benefits of chronic disease prevention---including community level and self-care approaches to prevent deterioration of those who are already chronically ill---can hardly be overstated. The Institute of Medicine estimates that, with a changed approach that emphasizes prevention and effective self-care, we could save more than \$750 billion a year in health-care dollars, lost wages and other costs and still achieve and possibly exceed current outcomes.

The human benefits can be especially impressive for the "high utilizers" that the medical system often regards as hopeless. Peer specialists, for example, usually have more intensive training than peer educators and work closely with people with behavioral (mental health and/or drug use) problems in addition to chronic disease control. A demonstration project in the New York City public hospitals showed that use of peer specialists reduced hospital stays for these "high utilizers" by 62.5%; from 11.2 to 4.2 days over a period of six months.

When we further consider how low-income communities are nearly paralyzed by chronic disease, the costs to the economy and in terms of human suffering are staggering. There are sound preventative strategies for chronic diseases that have potential to lower their incidence or their severity, including diabetes, heart disease, asthma, and even some types of cancer.

We conclude with the prevention recommendations made by the Bipartisan Policy Center in its report entitled, [A Bipartisan Rx for Patient-Centered Care and System-Wide Cost Containment](#): a) Invest the Prevention and Public Health Fund in demonstration programs to help identify the most cost-effective prevention strategies; b) Support collection, analysis, and dissemination of data from prevention programs, both governmental and

nongovernmental; c) Provide financial incentives to help spur investment and innovation among small businesses in comprehensive worksite health promotion; and d) Support health promotion strategies for the federal workforce to accelerate the generation of additional data on effective interventions.

#### Summary Points:

- Nearly half of Americans have one or more chronic diseases
- The diagnosis of childhood chronic diseases has almost quadrupled over the past four decades
- The increase in childhood obesity is placing the next generation at great risk for developing chronic diseases earlier in life
- Three in four dollars spent on health care in the U.S. are for patients with one or more chronic conditions
- Chronic diseases are the #1 cause of death and disability in the U.S.
- Patients with chronic diseases account for 75% of the nation's health care spending
- The CDC estimates...
  - 80% of heart disease and stroke
  - 80% of type 2 diabetes
  - 40% of cancer
- ...could be prevented if only Americans were to do three things:
  - ✓ Stop smoking
  - ✓ Start eating healthy
  - ✓ Get in shape
- Two in three (68%) Americans *underestimate* the magnitude of the problem:  
*That in the U.S., chronic diseases represent more than 70% of the deaths and 70% of health care costs*
- Not surprisingly, people with chronic conditions are the heaviest users of health care services
- Cancer and hypertension are among the most costly chronic conditions, accounting for over \$500 billion annually in treatment expenditures and lost economic output
- If left unchecked, chronic diseases will cost our economy over \$4.1 trillion by the year 2023 and could cost the U.S. almost \$6 trillion in lost economic output by 2050
- Increasing the use of common preventive care services could save 100,000 lives each year in the United States alone (e.g. daily dose of aspirin, medications/services to quit smoking, screening for colorectal and breast cancer, & flu immunizations)
- There is also substantial room for improvement in treating chronically ill patients to prevent further complications-- Chronically ill patients receive only 56% of the clinically recommended preventive health care services
- Non-white Americans often receive a different level of treatment for their chronic conditions...(i.e. higher percentage of non-whites report: receiving conflicting advice, duplicate tests, and conflicting prescriptions)
- Physicians in the U.S. believe patients with chronic conditions often have problems accessing care
- Workplace health promotion programs have been shown to reduce health care costs, increase productivity and reduce absenteeism – don't specify which programs
- By the year 2023, the U.S. can save over \$1 trillion through investing in prevention, mostly in indirect costs\*
- Healthy community programs: Activate America (YMCA); Active Living By Design (RWJF); ACHIEVE (NACDD, NRPA, YMCA); Alliance Communities (CDC); America on the Move

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