

Economic Benefits of Public Health Prevention

*Produced by Health Resources in Action of Boston
for the Maricopa County Department of Public Health*

Economic competitiveness is one of the four cornerstones of reform prioritized by Governor Brewer's administration. In 2011, the AZ state legislature passed the Governor's Arizona Competitiveness Package to provide tax reforms and incentives to sustain healthy economic growth for Arizona's employers. The reforms aim to create a business environment that is optimal to retain employers and attract new ones to the state (1).

Public health has an essential role to play in building a strong, competitive economy in Arizona. Improving the health of the workforce is good for employees and employers, both in AZ and nationally, because it improves worker productivity and loyalty, reduces health care expenditures, and encourages economic growth (2).

Health care is a major expense for employers. Nationally, health care is the most expensive benefit provided by employers, making up 8.5% of the total employer costs for each worker (3), and businesses often cite high health care costs as a reason for relocation (3)(4)(5). Investing in public health policies and programs helps to create healthier communities in which people live, work, learn and play successfully. Healthy children are more apt to thrive in school and become more economically productive adults (6). And research shows that investing in policies and programs that prevent chronic diseases will reduce absenteeism, and improve productivity for adult employees:

- The indirect costs to employers resulting from employee poor health—lower productivity, higher rates of disability, higher rates of injury, and more workers' compensation claims—can be two to three times the costs of direct medical expenses (7).
- A modest reduction in avoidable risk factors could lead to a gain of more than \$1 trillion annually in labor supply and efficiency by 2023 (7).

- The average cost benefit is \$3.20 savings to every \$1 invested for workplace wellness programs, representing large reductions in absenteeism, health care costs, and workers compensation and disability management claims (8)(9)(10)(11).

Public health addresses the underlying causes of high medical costs.

High rates of preventable chronic disease and associated care costs are a primary reason that health insurance is so expensive for employers.

According to the National Prevention Strategy:

- People with chronic conditions like asthma, heart disease and diabetes account for 84% of national health care dollars spent and 99% of Medicare spending (12).
- The treatment of chronic diseases, many of which are considered preventable, represent 75% of all healthcare costs (13).
- These conditions, and risk factors associated with them- like smoking and obesity-reduce annual productivity by between \$200 and \$440 per person (14).

Associated health care costs for preventable chronic disease in Maricopa County and the state of Arizona are in the billions. Evidence-based community and workplace health interventions, that include programs and policies to support healthy lifestyle choices, can help reduce these costs.

Reducing chronic diseases could save millions in health care costs.

Public and private health care payers in AZ could save \$351 million by reducing the prevalence of two chronic conditions alone, hypertension and diabetes, by just 5 percent. Projections by the Urban Institute show that AHCCCS [the AZ Medicaid program] would save \$65.4 million and private payers would save

Burden of Chronic Disease		
Maricopa County (16)		
Premature Deaths	Cases	2010 Hospital Cost
Cardiovascular Disease	6,810	\$3.4 billion
Cancer	5,510 (mostly lung)	\$857 million
Chronic Respiratory	1,460 (emphysema, asthma)	\$260 million
Diabetes	700	\$210 million
Hospital Discharge by Disease	Cases	2011 Hospital Costs
Cardiovascular Disease	55,694	\$3.2 billion
Cancer	15,455	\$1.07 billion
Chronic Respiratory	10,381 (asthma, chronic bronchitis)	\$681 million
Diabetes	6,793	\$19.6 million
Arizona (17)		
Premature Deaths	Cases	2011 Hospital Cost
Cardiovascular Disease	16,508	No data
Cancer (18)	10,848	No data
Chronic Respiratory	12,923	\$360 million
Diabetes	7,065	\$168 million

\$160.5 of these funds (15). (HRiA was unable to readily access morbidity data for the state.)

Return on Investment for Prevention and Public Health. The U.S Chamber of Commerce cites wellness and prevention as one of its recommended strategies for containing costs and making health care more affordable (2). Investments in robust local health departments, which help businesses, schools, health care institutions and communities implement evidence-based prevention strategies, health risk reduction, and disease management programs have demonstrated returns on investment (ROI) (10). A 2011 study found that premature death (mortality) rates fell between 1.1 percent and 6.9 percent for each 10 percent increase in local public health spending (19).

A Trust for America’s Health/New York Academy of Medicine report indicated that many effective prevention programs cost less than \$10 per person and can lower rates of chronic diseases related to poor physical activity and nutritional status, and smoking—the leading causes of preventable chronic diseases. Implementing demonstrated prevention programs in communities can reduce rates of:

- Type 2 diabetes and high blood pressure by 5 percent within 2 years;
- Heart disease, kidney disease, and stroke by 5 percent within 5 years; and
- Some forms of cancer, arthritis, and chronic obstructive pulmonary disease by 2.5 percent within 10 to 20 years (20).

NOTE: Quality-Adjusted Life-Year (QALY) is another measure of disease burden than the ones above, that includes both quality and years of life lived. While QALY offers another measure for assigning value to health outcomes, the ACA prohibits the use of cost per QALY as a threshold to establish what type of health care is cost effective or recommended (21)

Maricopa County Public Health Works. Maricopa County community prevention programs have the **potential for realizing significant Annual Net Savings and Return on Investment (ROI) – 4.2 to 1 (20) (savings of \$4.20 for every \$1 spent)**. Local and State Health Departments have the capacity to analyze a broad range of data to understand the drivers of chronic disease. They are also experts in implementing proven population strategies to prevent and manage disease. Among the many recommended strategies that are shown to prevent or reduce the severity of diabetes, hypertension, heart disease and respiratory disease are to reduce exposure to secondhand smoke by banning smoking indoors, behavioral interventions to reduce television or computer screen time, workplace wellness programs, and provider reminder and recall systems for patient preventive screenings (8). These are drawn from the U.S. Centers for Disease Control and Prevention’s (CDC) *Guide to Community Preventive Services*.

MCDPH implements a number of evidence-based programs that improve the health of Arizona children and families, including, among many others:

- *Healthy Arizona Worksites Program (HAWP)* – MCDPH is partnering with the Arizona Small Business Association (ASBA) – the state’s largest business trade association – and the Arizona Department of Health Services (ADHS) to create strong, more competitive companies; healthier and more productive employees; and long-term workplace culture change that supports health (22)
- *SNACK (Safety, Nutrition, Activity and Care for Kids)* – This program partners with child-care centers to make nutritious foods more accessible, to extend time for physical activity during the school day and to reduce injuries in the child care setting (23).
- *Tobacco-Free Arizona* – This program enforces policies and implements programs that reduce tobacco use and improve indoor air quality, one of the most effective strategies to prevent disease and reduce costs (24).

Without these activities, disease rates and health care costs in Arizona would probably be significantly higher.

Need for Increased Investments in Prevention in the New Health Reform Landscape. At only \$7.59 per capita, Arizona currently ranks very low-- 49th among the 50 states for spending on public health, according to a 2013 Trust for America’s Health Report (25). Based on published studies, increased targeted investments could lead to reductions in Arizona’s current rates of disease and medical costs. Public and private stakeholders with a vested interest in reducing medical costs in the state, as well as increasing their economic competitiveness, should consider increased public health prevention investments in any economic development package. MCDPH could help communicate the impact of its prevention programs by analyzing their ROI in projected avoided medical costs.

As state health reform is planned for and implemented, it will be important to help formulate a new *health* system, rather than continuing to support an expensive medical treatment system. It will be necessary to include public health leadership at the planning table so that community prevention is incorporated into new models of care and payment systems.

In Massachusetts, where public health leaders in the governmental and community sectors were organized to address health reform, legislators ultimately included in a 2012 Health Care Payment Reform bill that included a new four-year \$60 million Prevention and Cost Control Trust to fund community prevention and workplace wellness programs. A range of municipal leaders, public health, faith-based, and health access advocates and others joined to make the case that the state’s goal to reduce medical costs would not succeed without an increased investment in prevention. State health policy leaders were convinced by the ROI data, including projections that a 5% reduction in diabetes and hypertension could save the state (and federal government) nearly half a billion dollars per year within five years (26)(15). The fund is supported by a small surcharge on insurers and hospitals. Spending of the fund is guided by a multi-stakeholder advisory board and promotes evidence-based community prevention activities aimed at reducing costly preventable health conditions.

A 2009 poll, funded by the Robert Wood Johnson Foundation and the Trust for America’s Health, found that 71% of Americans support more investment in prevention (27). As hospitals, payers and employers plan for how to improve health and reduce costs, they need to know how public health can help them scale up impact beyond the effect of programs of any individual institution. And as states and businesses plan for long-term economic competitiveness and health, community prevention investments, not just business tax credits, must be part of the equation.

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