

Keeping Colorado Competitive

Roadmap to a Healthier, More Productive Workforce

Supplement to the 2012 Colorado Health Report Card



The Colorado

Health Report Card

supplement



The Colorado Health Foundation™



Keeping Colorado Competitive

Roadmap to a Healthier, More Productive Workforce

Colorado's employers—from the coffee shop owner in Fruita to the rancher in Fremont County to the high-tech CEO in Fort Collins—make decisions every day to help their businesses succeed. Keeping their workers healthy and productive can be among the toughest and costliest of those choices. That's why developing innovative, cost-effective strategies to build healthier workforces will encourage growth—positioning Colorado at the economic forefront for years to come.

The obstacles can be daunting. The average price of an individual health insurance premium has more than doubled in Colorado since 1998, with the employer contribution increasing 146 percent.¹ The reduced productivity of workers in poor health, a concept known as presenteeism, may cost U.S. companies up to \$150 billion a year, according to some estimates.²

Reasons for higher insurance rates and higher costs for unhealthy workers are complex, but one thing is clear: About one of every five dollars (22 percent) spent on workforce health relates to ten *modifiable* health risk factors including obesity, high blood pressure, tobacco use, physical inactivity and stress.³ Making improvements in just a few of these areas can translate into significant cost savings for Colorado businesses.

"Keeping Colorado Competitive: Roadmap to a Healthier, More Productive Workforce," examines four indicators with direct links to the health and productivity of Colorado's present and future workforce—mental health, obesity, smoking and teen pregnancy. It also highlights evidence-based programs in Colorado intended to foster a healthier and more productive workforce.



How do Colorado Employers and Employees Benefit?

What could Colorado employers and employees gain if certain health rankings improved to No. 1 among the states? Residents and businesses could see quantifiable improvements if Colorado became the top state in each health indicator.

Findings from the 2012 Colorado Health Report Card show how the health of individual Coloradans would benefit by achieving the No. 1 ranking. But this supplement takes that analysis one step further by estimating how being No. 1 could help the all-important bottom line for employers and employees. Look for callouts throughout the supplement that highlight cost savings.

We calculated these estimates by applying the data through the following equation:



Per capita cost estimates for tobacco use, adult obesity and mental health were adopted from *Ten Modifiable Health Risk Factors are Linked to More than One-Fifth of Employer-Employee Health Care Spending*.⁴ For the childhood obesity indicator, we used calculations from Thomson Medstat.⁵ We adjusted all calculations to assume that 59 percent of children and 60 percent of adults are continuously enrolled in employer-sponsored insurance, as reflected in the 2011 Colorado Health Access Survey.

What isn't measured?

However, the number doesn't quantify employers' efforts to reduce health risks among their employees. The percentages used for individuals with employer-sponsored insurance represent averages for Coloradans and may vary among sub-populations.



What If Colorado Were the Healthiest State in the Nation?

For the first time, the 2012 Colorado Health Report Card examines each health indicator in the context of one simple question: “What would it mean if Colorado ranked No. 1 among all states in this particular area?”

The answers are revealing. Consider the four indicators highlighted in this supplement to the Colorado Health Report Card. Each year, Colorado would have 92,600 fewer adults who report mental health difficulties; 3,000 fewer girls between the ages of 15 and 19 would have a baby; there would be 24,900 fewer obese children, and

234,700 fewer adult smokers. Colorado already has the lowest adult obesity rate, making it No. 1 in the nation. Still, there are serious concerns. The state’s adult obesity rate has more than doubled since 1995. Meanwhile, Colorado lags behind 22 states in childhood obesity.

Answering the question, “What if Colorado were No. 1?” shows how many lives would be impacted—along with the accompanying economic and workforce improvements if Colorado reached the goal of being the healthiest state in the nation.

A Healthier, More Productive Workforce for Colorado: The Roadmap

Report Card Indicator	Colorado Rank	If Colorado Were No. 1
Obesity: 20.9% of Colorado adults and 14.2% of Colorado children are obese.	1 (Adults) 23 (Children)	24,900 fewer children would be obese.
Mental Health: 14.7% of adults reported mental health difficulties eight or more days in the past month.	13	92,600 fewer adults would report poor mental health.
Teen pregnancy: Fertility rate is 33.4 births to mothers ages 15-19 per 1,000 population.	27	3,000 fewer teenage girls ages 15-19 would give birth each year.
Smoking: 20.0% of Colorado adults are current smokers.	8	234,700 fewer adults would smoke cigarettes.



When factoring in medical costs, absenteeism and presenteeism, the cost of obesity among full-time U.S. employees is estimated to be \$73.1 billion.

Adult obesity

Colorado has the lowest adult obesity rate in the nation at 20.9 percent, the 2012 Colorado Health Report Card finds. Still, Colorado's adult obesity rates are climbing at a faster rate than in the country as a whole—more than doubling since 1995.

The health implications of obesity are well-documented. Research shows that overweight or obese individuals are at a higher risk for coronary heart disease, diabetes, cancer, stroke, liver disease, osteoarthritis and respiratory problems than those who are not obese.⁶ The consequences of these diseases are significant, as obesity contributes to as many as 300,000 premature deaths in the U.S. each year.⁷

Obesity and the health conditions associated with it present a challenge to employers already struggling with rising health care costs. Health care costs for obese employees were 27.4 percent higher than for those of a normal weight, according to a 2012 study in the journal *Health Affairs*. On average, obese employees incurred \$1,091 in additional health costs per year.⁸ While this additional cost is initially covered by health insurers, it is eventually passed along to employees and employers in the form of higher insurance premiums, co-pays and deductibles.

Obese employees also tend to be less productive at work. The costs of absenteeism and presenteeism among obese employees may be just as significant as direct health care costs. When factoring in medical costs, absenteeism and presenteeism, the cost of obesity among full-time U.S. employees is estimated to be \$73.1 billion. This figure is roughly equivalent to the cost of hiring an additional 1.8 million workers per year at \$42,000 each. Increases in employee body mass index (BMI)⁹ can result in additional work days missed. Obese women with a BMI between 30 and 34.9 miss 3.1 days of work due to conditions associated with excess weight, compared to 1.1 days of work missed by overweight women.¹⁰

If Colorado's adult obesity rate returned to 1996 levels, Colorado employers and employees could save an estimated \$228.9 million annually in health care costs.

Though Colorado is ranked No. 1 for the lowest rate of adult obesity, the obesity rate has doubled in 15 years, from 10.3 percent in 1996 to 20.9 percent in 2011. If Colorado's obesity rate decreased to 1996

levels, approximately 350,300 fewer Coloradans would be obese. Of that group, an estimated 209,800 would be enrolled in employer-sponsored health insurance. Goetzl et al.⁴ estimate that employers and employees pay an additional \$1,091 annually in health care costs for an employee who is obese compared to an employee who is not obese. If Colorado returned to its 1996 adult obesity rate, Colorado employers and employees could save an estimated \$228.9 million annually in health care costs.

Childhood obesity

Rising rates of childhood obesity threaten the health of Colorado's future workforce. According to the 2012 Colorado Health Report Card, Colorado's childhood

obesity rate increased from 9.9 percent in 2003 to 14.2 percent in 2007, with higher rates among Hispanic children.

The U.S. Surgeon General reports that overweight adolescents have a 70 percent chance of becoming overweight or obese as adults. This increases to an 80 percent chance if one or more of the child's parents is overweight or obese.¹¹

Like obese adults, obese children are more likely to have chronic conditions and incur higher health care costs. A study by IBM of its

*Includes only privately insured children

employees and families suggests that the health care costs for obese children are nearly twice that of non-obese children (\$2,907 vs. \$1,640 annually). Children with Type 2 diabetes, a condition often associated with obesity, averaged more than \$10,000 per year in health claims.¹²

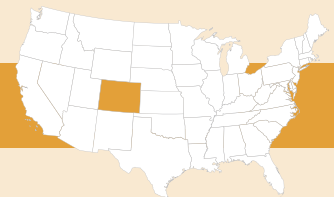
Obesity and the conditions associated with it weigh heavily on a child's ability to learn. Overweight children who consume too many calories demonstrate poorer academic achievement, according to a recent study.¹³ A study of Philadelphia public schools found that obese children were absent 20 percent more than their non-obese classmates. The researchers found that obesity was a stronger predictor of absenteeism than age, sex, race or socioeconomic status.¹⁴

If Colorado were No. 1 in childhood obesity, Colorado employers and their employees could save an estimated \$38.4 million annually in health care costs.

Colorado is No. 1 for adult obesity, but its children—the future of Colorado's workforce—rank No. 23. If Colorado were ranked No. 1 in childhood obesity, 24,900 fewer children would be obese. Of that group, an estimated 14,600 would be enrolled in employer-sponsored health insurance. Thomson Medstat estimates that annual health care costs for an obese child are \$2,635 higher than for a child of normal weight.*



Colorado Spotlight



The Youth Foundation

The Youth Foundation (TYF) in Eagle County serves at-risk children in kindergarten through eighth grade using the evidence-based program Coordinated Approach to Child Health (CATCH). Developed by the University of Texas, CATCH has been shown to increase levels of moderate to vigorous physical activity among participants. CATCH students participate in three to four after-school activities each week,

totaling a minimum of 200 minutes of physical activity per week for 28 weeks throughout the school year. The CATCH after-school program also provides nutrition education.

Many children in Eagle County were not reaching the recommended amount of physical activity. Since its launch, TYF has helped more than 1,500 youth increase their physical activity by 200 percent. The program enjoys a 94 percent attendance rate among student participants.¹⁵



The National Business Group on Health estimated that approximately 217 million workdays are completely or partially forfeited annually due to mental illness in the U.S.

Mental Health

Colorado ranks 13th in the nation for the percentage of adults reporting poor mental health, according to the 2012 Colorado Health Report Card, with 14.7 percent reporting poor mental health eight days or more during the past month. The rates are much higher for low-income Coloradans, potentially exacerbating health disparities throughout the state.

A national survey found that one of five workers experienced symptoms of a mental health disorder in the month before the survey.¹⁶ Employees may be reluctant to seek counseling or treatment for many reasons, including privacy concerns, difficulty locating providers, financial barriers, lack of mental health coverage and general stigma surrounding mental health conditions.^{17,18,19} Reduced productivity among workers with poor mental health is a costly expense to employers.

The annual cost to employers for absence, disability and decreased productivity due to mental illness is four times more than the costs associated with lack of medical treatment.²⁰ The National Business Group on Health estimated that approximately 217 million workdays are completely or partially forfeited annually due to mental illness in the U.S.²¹ A similar study found that, on average, employees with depression lose five times more hours of productivity per week than those who aren't depressed.²² Cumulatively, lost productivity relating to depression costs employers \$44 billion each year.²³



Increasing access to effective mental health programs and workplace wellness initiatives could reduce the financial burden on employers. Studies show Employee Assistance Programs (EAP)—which are designed to help employees with issues that may have a negative impact on their work performance—save costs for employers by increasing productivity and reducing absenteeism.²⁴ One study found that for every dollar invested in an EAP, \$5.17 to \$6.47 is returned to the employer.²⁵ This high return on investment is in large part due to increased productivity. On average, employees with a mental illness who were treated through an EAP improve their productivity by 6.36 hours per week.²⁶

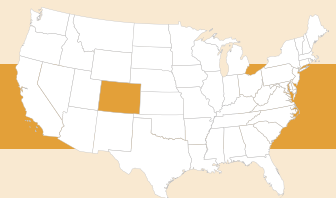
If Colorado were No. 1 for the lowest rate of depression, Colorado employers and employees could save an estimated \$121.1 million annually in health care costs.

If Colorado were ranked No. 1, 92,600 fewer adults would report poor mental health. Of that group, an estimated 55,500 would be enrolled in employer-sponsored health insurance. Goetzel et al. estimate that employers and employees pay an additional \$2,184 annually in health care costs for an employee with depression compared to an employee who is not depressed.



One study found that for every dollar invested in an EAP, \$5.17 to \$6.47 is returned to the employer.

Colorado Spotlight



Mental Health First Aid

Mental Health First Aid (MHFA) Colorado is an evidence-based initiative developed through the Colorado Behavioral Healthcare Council and the Colorado Division of Behavioral Health. It focuses on increasing literacy and awareness about mental illness, reducing social stigma and supporting the community with tools for coping with mental illness.

The national Mental Health First Aid has demonstrated the program's effectiveness through extensive reviews. The 12-hour mental health training sessions targeted toward employers, teachers, law enforcement officials and health professionals increase recognition of mental illnesses, adherence to physicians' treatments, confidence in providing first aid and reduced stigmatization.²⁷ MHFA Colorado was selected for the 2012 Best Community Impact Award among all national divisions.²⁸



Colorado employers lose approximately \$1 billion annually from smoking-related decreases in productivity.

Smoking

The 2012 Colorado Health Report Card finds that one in five Colorado adults smokes cigarettes. About 23 percent of males smoke compared to 17 percent of females. More than 80 percent of adult tobacco users start when they are young, a trend taking hold in Colorado. The rate of cigarette smoking among high school students is similar to that of adults.²⁹

If Colorado were No. 1 for tobacco use, Colorado employers and employees could save an estimated \$82.5 million annually in health care costs.

Utah boasts the lowest rate of adult smokers in the country at 12.9 percent. Colorado currently ranks eighth, with 20 percent of adults identifying as smokers. If Colorado were No. 1, 234,700 fewer Coloradans would smoke cigarettes. Of that group, an estimated 140,600 would be enrolled in employer-sponsored health insurance. In a 2012 study, Goetzel et al. estimate that employers and employees pay an additional \$587 annually in health care costs for an employee who smokes compared to a non-smoking employee. If Colorado were No. 1 in smoking, Colorado employers and employees could save an estimated \$82.5 million annually in health care costs.

Nationally, the annual rate of smoking among adults has declined by more than 50 percent between 1965 and 2009.³⁰ Despite these long-term gains, the decline in smoking rates has leveled off in the past decade.³¹ An estimated 45.3 million people, or 19.3 percent of all adults ages 18 or older, smoke cigarettes.³²

Smoking suffocates productivity, putting Colorado at a disadvantage against states with lower smoking rates. High school students who smoke earn lower grades in school than non-smokers.^{33,34} The association between tobacco use and academic achievement can contribute to the potential for lower productivity among Colorado's future workforce.

Smoking breaks and poorer health can cause smokers to be less productive at work than non-smokers. The cost of productivity losses attributed to smoking reached \$97 billion between 2001 and 2004.³⁵ Each employee who smokes costs employers \$1,760 in lost productivity each year, according to an estimate from the Centers for Disease Control and Prevention.³⁶ Colorado employers

lose approximately \$1 billion annually from smoking-related decreases in productivity.³⁷

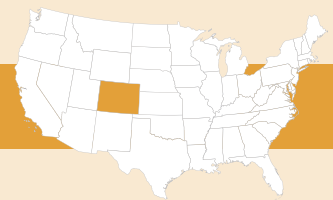
A national study of the U.S. workforce found that tobacco use was one of the greatest causes of health-related lost production time. Workers who smoked one pack of cigarettes per day or more lost two times more productive time than non-smoking workers.³⁸ One study showed that, over time, current smokers experienced significantly greater absenteeism than former smokers or those who have never smoked. Former smokers also showed an improvement over time in productivity measures, compared to current smokers.³⁹

The health implications of tobacco on Colorado's workforce are significant. Smoking is estimated to increase the risk of coronary heart disease, stroke, lung and other types of cancer, and chronic obstructive lung diseases. It also increases the risk for preterm delivery and low birth weight.⁴⁰

Colorado employers also face steep health care costs for employees due to smoking. According to the Colorado Department of Public Health and Environment, Colorado spends \$1.3 billion on smoking-related health care costs.⁴¹ Another study found that tobacco users were 16.3 percent more costly than non-tobacco users (incurring \$587 in additional medical costs).⁴²



Colorado Spotlight



Colorado QuitLine

Since 2002, the Colorado QuitLine has helped Coloradans quit tobacco use and remain tobacco-free. The services are provided by National Jewish Health and administered by the Colorado Department of Public Health and Environment through voter-approved excise taxes on tobacco products. Coloradans 15 and older who want to stop using tobacco can register for a variety of free services tailored to individual needs, including patient-centered coaching sessions and research-based information.

Colorado QuitLine members can call a toll-free number (1-800-Quit-Now) seven days a week or click on an online web portal for help in building personal quit plans and getting tips to overcome common obstacles such as stress, tobacco cravings, irritability and weight gain. In addition to online resources and coaching services, Colorado residents age 18 and up may receive free nicotine patches. QuitLine services—including nicotine replacement therapy and other medications—are free for eligible Medicaid enrollees.⁴³ Research shows that smokers who use Colorado QuitLine services are more likely to quit than smokers who try to quit on their own.⁴⁴



Teen Pregnancy

Teen pregnancy remains a challenge for Colorado. The 2012 Colorado Health Report Card finds that the teen fertility rate in Colorado was 33.4 per 1,000 in 2010, ranking the state 27th nationally.⁴⁵ On the bright side, Colorado's teen fertility rates have declined in the past decade, paralleling national trends.⁴⁶

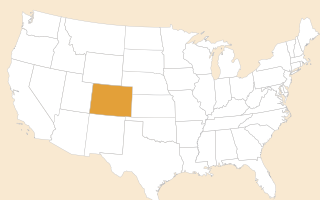
A substantial body of literature highlights the health risks associated with teen pregnancies. Teen mothers are at a higher risk for pre-term delivery and giving birth to low birth weight babies.⁴⁷ Teen pregnancy has long been recognized as a public health concern. However, researchers recently started exploring the non-medical consequences of teen pregnancy.

The educational disadvantages caused by teen pregnancy endanger workforce productivity. Teen mothers are significantly less likely to graduate from high school or college. In fact, teen pregnancy is the No. 1 reason girls drop out of high school.^{48,49} Additionally, men and women who had children as teenagers typically earn less when they enter the workforce. There is a direct relationship between the age a woman has her first child and her subsequent socioeconomic status.⁵⁰

Children born to teen mothers face their own productivity challenges. They are more likely to live in poverty, score low on cognitive and developmental tests and demonstrate poor academic achievement. Even when controlling for background characteristics, children born to mothers under the age of 17 entered kindergarten with lower levels of school readiness, meaning they performed worse on math, reading, communication and social skills tests compared to children of older mothers.⁵¹ Additionally, children of teen parents are more likely to become teen parents themselves.⁵²

A 2011 National Campaign study estimates that the cost of teen pregnancy to U.S. taxpayers is at least \$10.9 billion per year.⁵³ In Colorado, this cost is estimated to be at least \$184 million per year.⁵⁴ Much of this is due to higher costs for welfare, public health care and lost tax revenue. A similar study, conducted by the Urban Institute in 2004, found that about half of the cost to U.S. taxpayers of teen childbearing is attributed to lost income and consumption taxes resulting from lower earnings.⁵⁵ An estimated \$28 billion annually could be saved by teen mothers in the U.S. delaying childbearing—largely due to higher productivity gains.⁵⁶

A 2011 National Campaign study estimates that the cost of teen pregnancy to U.S. taxpayers is at least \$10.9 billion per year. In Colorado, this cost is estimated to be at least \$184 million per year.



Colorado Spotlight

The Teen Outreach Program

The Teen Outreach Program (TOP) is an evidence-based program that works to prevent teen pregnancy and school dropouts by helping teens in 6th to 12th grades build self-esteem, life skills and achievable goals by engaging teens in community service. TOP connects this volunteer work to classroom discussions on a wide range of issues, from family conflict to sexual development. The combination of community service and facilitated discussion encourages personal development and healthy behaviors, including making safer sex choices.

Girls who participate in this program demonstrated a 53 percent lower risk of becoming pregnant than a comparison group. Denver Health is implementing TOP in Boys & Girls Clubs of Metro Denver, and has served an estimated 200 youth.^{57,58}

Conclusion

Colorado's performance on health indicators has a significant impact on the state's economic competitiveness. Obesity, mental health, cigarette smoking and tobacco use add substantial costs for Colorado employers. High teen fertility rates pose significant challenges for Colorado's future workforce. These costs are both direct in the form of health care costs and indirect in the form of absenteeism, presenteeism and reduced productivity.

As Colorado's workforce ages, employers look to the next generation of workers. Yet the state's children and adolescents are falling behind in important health indicators, both nationally and compared to adults. Rising childhood obesity rates threaten not only the health and academic achievements of our children, but the competitive edge of tomorrow's workforce.

Colorado employers already shoulder significant costs associated with adult obesity, even at a time when the state ranks No. 1 in that health indicator. As overweight and obese children become adults and enter the workforce, employers can expect these costs to increase dramatically unless we turn the tide.

A healthy workforce, and a promising youth and young-adult population, eases economic burdens on Colorado's employers and can attract new businesses to the state. Demonstrating progress on these critical health indicators can help state policymakers, business leaders and communities as they promote Colorado as a place of economic opportunity. Improving Colorado's performance on the Colorado Health Report Card indicators is imperative for the state's economic health and the overall well-being of all Coloradans.



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Acknowledgments

The 2012 Colorado Health Report Card and Supplement were produced in partnership with the Colorado Health Institute.

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