Return on Investment for Tobacco Cessation

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Tobacco use is the **single most preventable cause of death and disease** in the U.S., causing 5,100 deaths each year in Minnesota.[1] Smoking affects nearly every system in the body, causes serious health problems and increases medical costs. Roughly 10 percent of smokers live with a smoking-related illness.[2]

Tobacco use has substantial direct and indirect costs for the state and the public, health care providers, employers, insurers, and individuals. Spending on health care due to a smoking-related illness is estimated to cost Minnesota $2.5 billion each year.[3] Smokers have estimated health care costs that average 34 percent higher than nonsmokers.[4] Indirect costs, such as lost workplace productivity and absenteeism, are estimated to cost Minnesota employers $1.2 billion each year.[5] In total, costs to Minnesota's economy from smoking are estimated in excess of $5 billion each year.[5]

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Tobacco dependence treatment is one of the most cost-effective preventive services, providing substantial return on investment in the short and long term.[6] Investments in smoking cessation lead to improved health outcomes, resulting in lower health care costs and more affordable health insurance premiums.[4] Tobacco cessation treatment will become increasingly important as providers, employers, insurers and the state look to improve the public's health and reduce the total cost of health care. The following brief highlights current evidence quantifying the return on investment and cost-effectiveness of tobacco cessation treatment and its implications for Minnesota.

ROI for Providers, Health Systems and Clinics

Routinely helping patients quit smoking is a core responsibility of health care delivery systems. An estimated 70 percent of the 40 million adult smokers in the U.S. see a health care provider each year, representing over 28 million opportunities for brief intervention and treatment. Data show that advice from health care providers increases the use of evidence-based cessation treatments and improves outcomes.[7,8]

Tobacco use screening and brief intervention is one of the three most cost-effective clinical preventive services.[9 10] The U.S. Public Health Service Clinical Practice Guideline, *Treating Tobacco Use and Dependence – 2008 Update* demonstrated that effective treatments for tobacco users exist, are cost-effective and should become part of standard health care.[6] The cost per quit of smoking cessation interventions ranges from a few hundred to a few thousand dollars.[6] Tobacco screening is estimated to result in lifetime savings of $9,800 per person.[11]

Quitting smoking can lower total health care costs within two years. Research shows that cessation treatment in the outpatient setting lowers health care costs within 18 months of quitting.[12] Within three years, a former smoker's health care costs will be at least 10 percent less than if they continued smoking.[4] Addressing smoking cessation in primary care can reduce health care costs within a relatively brief period of time.[12]

Research shows that people are much more likely to successfully quit tobacco use if they receive help.[6] Among current smokers who made quit attempts in the past 12 months, over half (56.6 percent) made multiple attempts to quit. Data show that advice from health care providers increases the use of evidence-based cessation treatments and improves outcomes.[7]

The majority of Minnesota smokers want to quit. According to the 2014 Minnesota Adult Tobacco Survey (MATS), more than half (53.4 percent) of current adult smokers made a quit attempt in the past year.[13]

ROI for Insurers and Employers

Smoking cessation programs cost little compared to other commonly covered services. A comprehensive cessation benefit (all counseling, all medications) typically costs less than $0.50 per member per month[14] and the cost per quit for smoking cessation interventions ranges from only a few hundred to a few thousand dollars.[6] In contrast, the average initial cost for treating a single case of lung cancer is approximately $40,000.[15] For most smoking cessation treatments, the benefits of providing such treatments greatly outweigh the cost of providing them.[5]

Investments in smoking cessation save health plans and employers money in the short and long term. Research has demonstrated a positive return on investment for employers beginning in the first year that the investment in cessation services was made and continuing over the five-year period of the study.[4] Other studies have shown that each employee or dependent who quits smoking reduces annual medical and life insurance costs by at least $210 almost immediately.[14]

Cessation program expenditures can be fully offset in three years. Over a three-year period, expenditures for smoking cessation programs in the range of $144 to $804 per smoker can be fully offset by health care cost savings.[4] Greater savings will likely occur within special populations, such as pregnant women ($3 in health care costs for every $1 invested in smoking cessation treatment for pregnant women[16]) and persons with cardiac conditions ($47 during the first year and about $853 over the following seven years[17]).

Smoking cessation increases productivity. The American Productivity Audit, a national survey of over 29,000 workers, found that tobacco use was a leading cause of worker lost production time—greater than alcohol abuse or family emergencies. Quitting smoking improves a worker's productivity.[18] It is estimated that employees who smoke will cost self-insured employers an additional $5,816 annually, on average, including absenteeism, smoking breaks, healthcare costs and other benefits.[19]

ROI for the State

Medicaid enrollees smoke at approximately twice the rate of the general population.[20] Smoking-related diseases accounted for approximately 15 percent of annual Medicaid spending during 2006–2010, amounting to more than $39 billion per year.[21] In Minnesota, over $563 million of smoking-related health care costs are covered by Medicaid.[22] In Minnesota, it's been estimated that for every dollar spent on providing tobacco cessation treatment, the state potentially sees an average positive return on investment of $1.32.[5]

Including comprehensive tobacco cessation services in Medicaid insurance coverage can result in substantial savings for Medicaid programs. Every dollar invested in the Massachusetts Medicaid Tobacco Cessation Program led to an average savings of $3.12 in cardiovascular-related hospitalization expenditures. These savings were realized within one year of the benefits being used.[23] Strategies to increase smoking cessation among Medicaid enrollees can reduce smoking-related disease and death among a population disproportionately affected by tobacco use, and can reduce smoking-related health care costs incurred by the state.

Smoking cessation reduces Medicaid claims. When Massachusetts implemented and aggressively promoted a smoking cessation benefit with minimal co-payments to all Medicaid enrollees, smoking prevalence among enrollees dropped 26 percent in the first two and a half years.[24] Analysis of Medicaid claims data also found a 46 percent decrease in the likelihood of hospitalization for heart attacks and a 49 percent decrease for other coronary heart disease diagnoses during this same time period.[25]

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