

Return on Investment Overview

Introduction

“Return on Investment” or “ROI” is an economic measure used to evaluate the efficiency of an investment. To calculate ROI, the benefit (return) of an [investment](#) is divided by the cost of the investment. The result is expressed as a percentage or a ratio. A ratio or percentage that is greater than one means that the benefit outweighs the cost.

In the case of tobacco cessation, several types of “benefit” can be used to calculate ROI. Examples include savings from lower health care costs, longer ability to work at one’s career, reduced sick time costs, a reduction in the times a family member might be sick from secondhand smoke – any type of monetary benefit that may be determined as a result of quitting tobacco use.

State – ROI Range: 0.95 to 2.88 (Source: Penn State)

Typically, the broadest perspective for tobacco cessation ROI is one that incorporates everything that benefits society as a whole. In Ohio, we can consider any savings that might accrue in the state. The best data on the state’s ROI comes from the American Lung Association, which shows that for every dollar spent on smoking cessation treatment, \$1.26 will be saved. However, the whole \$1.26 does not go to one entity – savings will be shared by the smoker, their employer, their health plan and society as a whole. Likewise, the dollar spent may be spent by the state, by health plans, employers or individuals.

Employer – ROI Range: Positive in all years (Source: Milliman)

Employers’ perspective is slightly narrower than the state’s, but includes medical costs, productivity costs, and the costs of employer-provided benefits such as life insurance. Milliman says that “Employers can quickly realize reduced medical and life insurance costs (Year One - \$210) when employees quit smoking even when the assessment is limited to direct short term health care savings.” America’s Health Insurance Plans (AHIP) also illustrates the employer’s perspective in their ROI calculator, and shows a positive result due to productivity gains in year one of a cessation program. Medical cost savings accrue in year two. National Jewish’s 2006 Ohio “Cost per Quit” study showed a positive ROI (2.61) including health care costs and productivity.

Health Plan - ROI Range: Positive within three years to positive after five years – up to 2.20 (Source: AHIP)

The narrowest perspective the Cessation Benefits Team (CBT) will consider is the health plans’ ROI, which includes only covered medical costs – but not things like disability or productivity. AHIP’s ROI calculator estimates the ROI of evidence-based cessation interventions over one to five years, with a positive result within three years. Ohio’s own ROI study from 2006 showed net savings after three years. A recent Bloomberg financial analysis also demonstrated positive savings in year three to health plans implementing the federal reform requirements. Savings continue to grow exponentially over time as medical expenses are avoided.

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Comparison to other preventive services

The CBT has demonstrated that employers and health plans can achieve savings in year one or two after their initial investment. However, it is important to note that most benefit coverage decisions in the U.S. health insurance industry are not held to this stringent an ROI requirement.

For comparison purposes, there are two primary “ranking” approaches to preventive benefits. The United States Preventive Services Task Force (USPSTF) and the Partnership for Prevention (PFP) both assess the value of preventive benefits.

The USPSTF is the leading independent panel of private sector experts in prevention and primary care. Sponsored by the Agency for Healthcare Research and Quality (AHRQ), USPSTF conducts rigorous, impartial assessments of the scientific evidence for the effectiveness of a broad range of clinical preventive services, including screening, counseling, and preventive medications. Its recommendations are considered the "gold standard" for clinical preventive services. A mission of the USPSTF is to make recommendations about which preventive services should be incorporated routinely into primary medical care and for which populations. The USPSTF assigns one of five letter grades to each of its recommendations (A, B, C, D, or I). An “A” grade indicates there is high certainty that the net benefit of the service is substantial. A “B” grade indicates there is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial. Federal reform mandates coverage of all A and B recommendations.

PFP is a membership organization of business, nonprofit organizations and government leaders advancing evidence-based prevention in policies and practices. PFP convenes the National Commission on Prevention Priorities, which uses evidence-based methods to assess the value of preventive services that protect and improve health. The Commission helps decision-makers choose preventive services that maximize the impact of their investments. The Commission identifies clinical preventive services that make the biggest impact on health and are most cost effective. The Commission has ranked evidence-based clinical preventive services recommended by the [USPSTF](#) and the [Advisory Committee on Immunization Practices](#).

In 2006, PFP published a study that gave three preventive services a perfect score on clinically preventable burden and cost-effectiveness: Aspirin chemoprophylaxis, Childhood immunization series, and Tobacco-use screening and brief intervention.

Preventive Services Coverage	USPSTF Grade	Partnership for Prevention, National Commission on Prevention Priorities (ranking based on impact and value)
Tobacco Cessation	A	10 – Highest
Alcohol Screen	B	9 – High
Mammogram	B	6 – Medium
Colorectal Screen	A	8 – High
Pap exam	A	7 – Medium

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