

# **Return On Investment Analysis Of A Community-Based Health Promotion Program In The United States**

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## **Aim**

The aim of the current research project was to conduct return on investment analyses on an innovative, state-sponsored health promotion program in the US. The paper extends the literature in weight management by documenting the utility of a practical program evaluation methodology that integrates economic indicators.

## **Literature review**

Promoting physical activity for health is, and has always been, part of the foundation underlying many sporting organizations' missions, and this idea has been translated into community-based programs and policies around the globe (Misener & Misener, 2016; Weed, 2016). The idea of sport or fitness for health promotion has gained traction outside of the United States where governing bodies, sporting organizations, and health insurance are all involved in public health promotion (Mansfield, 2016). In the United States, where the emphasis is often on competitive or professional sport, the missions of sporting organization often do not align with health promotion. However, research has provided encouraging findings that health promotion programs in workplaces can reduce sick days and improve quality of life for participants (Baicker, Cutler, & Song, 2010). Providing such programs can be costly, however, and they frequently only attract healthy employees to participate. West Virginia is consistently ranked poorly on adult prevalence of obesity (33% vs. 27.5% US Median), diabetes (12% vs. 8.7% US Median), and heart disease (6% vs. 4% US Median; Centers for Disease Control and Prevention, 2010). The estimated direct medical costs associated with obesity continue to climb (Herath & Browne, 2013), and these trends have driven the need for innovative policies and programs to promote healthy lifestyles among those at risk for chronic disease.

## **Methodology, research design, and data analysis**

In 2005, the West Virginia public employees' insurance agency (PEIA) established a comprehensive weight management program policy for all members with a BMI over 25. The subsidized program includes access to a local fitness facility, and services provided by a certified fitness professional, dietitian, and exercise physiologist. Previous published reports of this program's effectiveness have shown moderate reach and effectiveness, and a strong potential for sustainability (Abildso, Zizzi, & Reger-Nash, 2010; Zizzi, Abildso, Henderson, & Shaffer 2014). The program policy is a unique and innovative approach to obesity care that connects the fitness and insurance industries in a meaningful way. The data analyzed in the project was specifically collected to help insurance administration make future decisions about the viability and delivery of the program. The research design included quantitative and qualitative data integrated from self-report evaluation surveys, a web-based database with objective anthropometric data, insurance claims estimates, and published research articles. There were a total of 3,274 actual participants across approximately 70 active and previously active fitness facilities between January 2014 and December 2016.

## **Results, discussion, and implications**

There were two large categories of program costs, including claims paid per participant on average (\$1100 US dollars) and the total costs for program administration (\$1.2 million US dollars per year). Thus, total costs during the period were estimated as \$4.95 million US dollars. Stakeholders within the insurance agency collaborated with university research staff to identify two primary cost-savings domains: 1) aversion of bariatric surgery; and 2) reduction in health care spending by those meeting physical activity guidelines. Efforts were taken by the research staff to ensure cost-savings estimates across categories were mutually exclusive and conservative. Cost-savings estimates for bariatric surgery aversion were generated by median medical claims estimates for typical surgeries within WV (\$10,800 US dollars per surgery). The model of economic impact of moderate physical activity by Valero-Elizondo and colleagues (2016) was applied to generate cost savings in those at-risk for cardiovascular disease. Using multiple sources of data, researchers estimated that 147 surgeries were averted (4.5% aversion rate), 491 at-risk participants adopted regular physical activity, and 982 moved from a sedentary to an active lifestyle. Additionally, 25% of participants who completed six months reduced or stopped taking at least one chronic disease medication, and more than 1,500 participants received at least one session of behavior counseling. These estimates generated a total costs savings estimate of \$8.99 million US dollars during the three year period, resulting in a return

on investment ratio of 1.82. The primary drivers of the economic return for the agency were increases in the percentage of participants meeting physical activity guidelines and the number of bariatric surgeries prevented. This approach may be replicated by other wellness or weight management program directors so that their efforts to improve health in employees and their dependents can be affirmed with meaningful data.

## References

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