

Optum research study: Reducing health risks with corporate health-management programs



Introduction

Despite improvements in medical science over the past several years, the nation's health is not good. Indeed, it is getting worse in many respects.

About one in three U.S. adults — an estimated 70 million — has high blood pressure, which increases the risk for heart disease and stroke.¹ The American Medical Association recently recognized obesity as a disease, calling it an “epidemic” and noting that obesity rates have doubled among U.S. adults in the past 20 years.²

According to the Centers for Disease Control and Prevention, 73.5 million U.S. adults have high LDL (“bad”) cholesterol and only one-third of those people get treatment.³ And only one in three adults gets the recommended amount of physical activity each week.⁴

It is clear that health risks — cigarette smoking, alcoholism, high blood pressure and obesity, to name a few — take a heavy toll on the workplace. These risks can have a substantial impact on employee productivity and employer health care costs.



Research review: Benefits of health-management interventions

Over time, health risks may result in adverse health outcomes and contribute to even higher health care costs. Many health conditions are associated with lifestyle behaviors, such as physical inactivity, tobacco use, poor nutrition and high stress levels. Fortunately, these health risks and conditions can be supported through employer-sponsored health-management interventions.

Research has shown that companies implementing health and wellness programs can effectively reduce employee risk status and help lower health care costs, particularly when those programs target high-risk individuals.

One study, using data from two health assessments roughly two years apart, found that health management program participants were 1.8 to 3.5 times more likely than nonparticipants to reduce their risk in six of seven risk categories (back care, eating habits, exercise, stress management, tobacco use and weight control).⁵

Another study compared employees who participated in wellness coaching with those who did not. The authors found that, compared to nonparticipants, a greater proportion of participants transitioned to low-risk levels, while a smaller proportion of participants transitioned to medium- or high-risk levels.⁶

Lastly, in an assessment of the impact of workplace wellness programs on 12 health risks, researchers found that employees exposed to either moderate- or high-intensity programs significantly improved across all 12 risks, adjusting for demographic characteristics such as age, gender, education, salary and marital status.⁷

Optum study

The purpose of the Optum® study was to evaluate the impact of three Optum wellness programs on health risk reduction:



Telephonic wellness coaching: Participants connect with a certified wellness coach who helps them minimize health risks, including tobacco use, overweight/obesity, physical inactivity and stress. During the calls, the coach and participant build a rapport, develop behavior change plans and discuss relapse management strategies.



Online health coaching: This interactive program blends fitness and nutrition with stress management, smoking cessation, weight loss, diabetes and a heart-healthy lifestyle. Participants advance through stages of the program by passing an interactive quiz online.



Biometric screening: Participants' biometric data are collected using standard protocols, including height, weight, blood pressure, cholesterol and blood glucose.

Optum researchers set out to compare the reduction in health risks between individuals who completed at least one program and those who did not enroll in any of the three programs.

This study differs from the majority of peer-reviewed studies, which have focused on the overall impact of health and wellness interventions on health risks. Optum not only evaluated the impact of single interventions on health risks, but also evaluated the incremental effect of participating in multiple interventions.




Methodology

A cohort of 199,190 individuals from 2,145 employers was analyzed. Individuals were included if they completed two consecutive health assessments (HAs) approximately one year apart.

The nine risks that were included for evaluation were: alcohol use, blood pressure, body weight, cholesterol, medication or drug use for relaxation, nutrition, physical activity, stress and tobacco use.

These nearly 200,000 individuals were divided into three groups based on their level of engagement during the study period.



Intervention group A = 50,474	Intervention group B = 11,499	Control group = 148,716
<ul style="list-style-type: none">• Participated in and completed one of the three interventions between Jan. 1, 2009 and Sept. 30, 2010• Completed two health assessments — one prior to wellness program enrollment and one after program completion	<ul style="list-style-type: none">• Participated in and completed two of the three interventions between Jan. 1, 2009 and Sept. 30, 2010• Completed two health assessments — one prior to wellness program enrollment and one after program completion	<ul style="list-style-type: none">• Individuals had not participated in any of the three interventions at any time up until the date of their second health assessment• Individuals completed two health assessments between 270 and 450 days apart
		

Health assessment results for individuals who completed one or more of the interventions were compared with HA results for individuals who did not enroll in any interventions.

Results

Optum health-management programs reduce risk

Overall, high-risk individuals who completed an Optum health-management program achieved a significant reduction in risk. Below are highlights of the study findings.

Telephonic wellness coaching



High-risk individuals who completed the telephonic wellness coaching program were significantly more likely to reduce their risk for obesity, tobacco use, poor nutrition, high blood pressure and physical inactivity than were high-risk members in the control group (individuals not participating in any program).

Individuals completing the telephonic wellness coaching program were:

- 53% more likely to reduce risk for high blood pressure than those in the control group
- Twice as likely to reduce risk for tobacco use than those in the control group
- 38% more likely to reduce risk for obesity than those in the control group
- 31% more likely to reduce risk for physical inactivity than those in the control group



Online health coaching



Relative to the control group, individuals who completed an online health coaching program were significantly more likely to reduce their risk for obesity, physical inactivity and high blood pressure.

Individuals completing the online health coaching program were:

- 41% more likely to reduce risk for high blood pressure than those in the control group
- 27% more likely to reduce risk for obesity than those in the control group
- 19% more likely to reduce risk for physical inactivity than those in the control group

Biometric screening



Individuals who completed a biometric screening were significantly more likely to lower their risk for high blood pressure and high cholesterol relative to people in the control group.

Individuals completing a biometric screening were:

- 75% more likely to reduce risk for high cholesterol than those in the control group
- More than twice as likely to reduce risk for high blood pressure than those in the control group

Synchronized health-management programs maximize health risk reduction

Completing more than one Optum health-management program led to a marked reduction in risk.

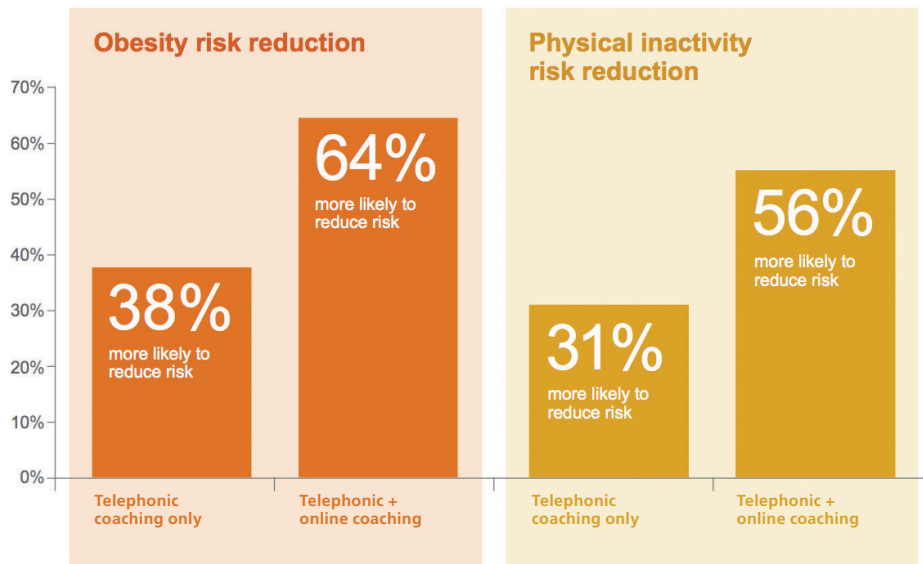
Telephonic wellness coaching and online health coaching

Completing both a telephonic wellness coaching program and online health coaching program increased the odds of lowering risk for gaining weight and physical inactivity.



Individuals completing both the telephonic wellness coaching program and online health coaching were:

- 64% more likely to reduce risk for obesity than those in the control group
- 56% more likely to reduce risk for physical inactivity than those in the control group



Telephonic wellness coaching and biometric screening



Completing both a telephonic wellness coaching program and biometric screening helped lower the risk of physical inactivity, obesity, tobacco use, high blood pressure and high cholesterol and poor nutrition.

Individuals completing both the telephonic wellness coaching program and biometric screening were:

- 86% more likely to reduce risk for physical inactivity than those in the control group
- 58% more likely to reduce risk for obesity than those in the control group
- More than twice as likely to reduce risk for tobacco use, high blood pressure and high cholesterol than those in the control group
- 32% more likely to reduce risk for poor nutrition than those in the control group



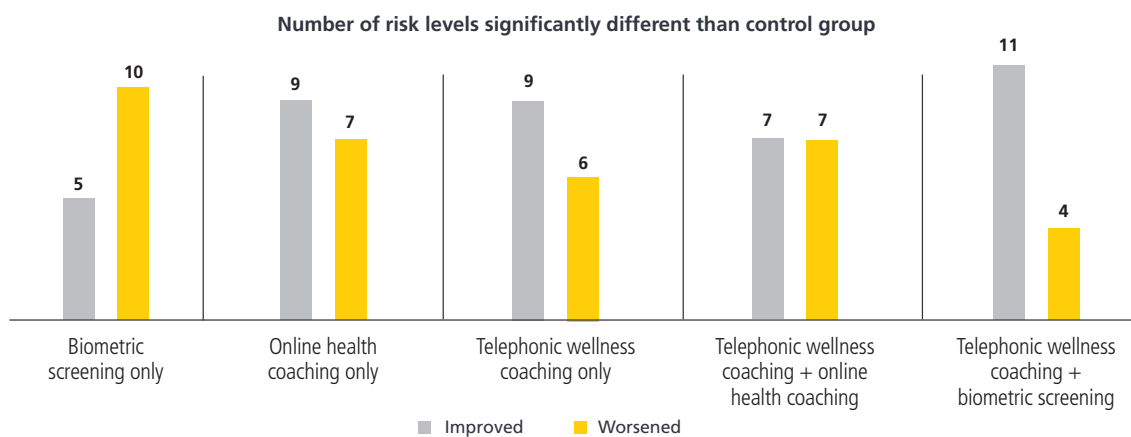
Risk migration

Participants may have some health risk factors worsen at the same time that some of their health risks improve. For example, an individual may stop smoking but gain some weight.

Additionally, for a given health risk factor, individuals can improve or worsen their risk level (e.g., they can move from being obese to overweight).

When comparing the percentage of intervention participants who improved or worsened from a given risk level:

- All interventions had a net equal or net improvement in the number of levels that were significantly different than the control group except biometric screening.
- Telephonic wellness coaching and biometric screenings combined had the largest net improvement.



Conclusion

This study shows that Optum wellness program participation is associated with significant risk reduction in high-risk individuals. Further, health risk improvement can be optimized when individuals participate in more than one program. These are key takeaways for employer groups looking to impact health risk within their organizations.

Authors

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Stephen Hartley is the senior director of analytics for the population health management products at Optum. He has more than 20 years of experience in the health care industry. Currently, Stephen and his team of research and data analysts are responsible for development and execution of an analytic agenda to assist in product research, design, execution and evaluation for Optum population health management — prevention and intervention products. Stephen is a graduate of Butler University. He holds a BS in mathematics and actuarial science.

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Ron Ozminkowski is senior vice president and chief scientific officer in the consumer solutions group at Optum, where he provides senior management consultation and subject matter expertise for health care analytics in support of Optum client relationships. He is internationally recognized as an expert in the evaluation of health and productivity management programs and has published widely on these and related issues.

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John White is a senior lead analyst within the Optum life sciences division. With more than 10 years of experience in health care analytics, John's current responsibilities include management and analytic oversight of health economic outcomes research. John is a graduate of Wake Forest University. He holds a master's degree in clinical epidemiology and health services research.

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