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Case Study

Employer Wellness Program Case Study



“Employers can identify high-risk employees who are expected to incur significantly higher healthcare costs by investing in employer-sponsored biometric screening for total and HDL cholesterol and glucose,” says Greg Vanichkachorn, MD, MPH of Kalispell Regional Health Center.

Introduction

Employee health and wellness programs offer a wide variety of services, including behavior modification programs, education, work environment changes, and risk identification tools.¹ These wellness programs usually integrate their goals with that of the organization, so there is strong C-Suite support and items to incentivize employees to participate. The question is whether or not these wellness programs and their biometric screenings are valuable for employers and employees. Most employers do not know their wellness program’s return on investment, yet do use various measures to assess the program’s impact on employees.¹ Assessment of health risks via a biometric screening program encourages employees to seek medical attention and become more engaged in their health journey which improves health over time.²

Greg Vanichkachorn, MD, MPH (Dr. Van), is Corporate Health Director, Kalispell Regional Health Center. Dr. Van’s background and responsibilities [go.alere.com/vanstudy] led to his interest in researching the value of various components of employers’ wellness programs.

Study

Dr. Van conducted a study with a mid-size (e.g., 100-4,999 employees) employer, to analyze the association between wellness screening results and predicted healthcare costs, thus assessing potential financial benefits of employer-sponsored wellness programs.³ Biometric screening data were collected by trained screeners (many of which were certified wellness coaches) during a three-month period in the fall of 2016. The Alere Cholestech LDX® Analyzer was used to test blood samples. This employer has a self-funded health plan and claims data were obtained from the employer’s third party administrator.

Employee results for total cholesterol (TC) to high-density lipoprotein (HDL) cholesterol ratio, blood glucose (GLU), and blood pressure (BP) from biometric screenings and each employee’s expected healthcare expenditures were followed, documented, and evaluated. The measurement of TC/HDL ratio, GLU, and BP were chosen as the parameters for this initial study due to their inherent relationship with high-risk disease states, such as cardiovascular disease and diabetes. These three variables were also chosen because it simplified the statistical analysis rather than having to account for the multiple



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different interactions between variables, some of which had no discernable association.

There were 1,834 employees who participated in biometric screening and had at least one health insurance claim. Average predicted healthcare costs were used to determine how much it will cost the employer to manage the employee's health. It was found that TC/HDL ratios in elevated risk employees were associated with a 14% increase in costs when compared with minimal risk employees. Similarly, moderately or highly elevated GLU risk levels were also associated with increased costs of 14% and 80%, respectively. There was no association found between elevated risk related to BP and higher costs. This study provides insight into the value of biometric screening.

Discussion

For some employees, wellness programs may be the first time that they are made aware of risk factors, so having access to immediate results, such as blood glucose and cholesterol, is crucial. For this study, the CLIA Waived Alere Cholestech LDX[®] System (Alere San Diego, Inc.) was used to test employees for TC, HDL, and GLU. The Alere Cholestech LDX[®] System provides accurate, actionable, and readily accessible results that have set the standard in point-of-care lipid profile, and glucose testing. It has been effectively utilized for biometric screenings for employees.

The Alere Cholestech LDX[®] TC and HDL tests have long-standing certifications with the Centers for Disease Control and Prevention's Lipid Standardization Program and Cholesterol Reference Method Laboratory Network Program. Alere Cholestech LDX[®] results are easily obtained with fingerstick sampling that can result in less

invasive blood collection and time involved. The Alere Cholestech LDX[®] System also eliminates errors with automated checks and calibration that help ensure analyzer integrity and accurate results. "We have had great success in partnering with Alere and using the Alere Cholestech LDX[®] System for our biometric screening programs," says Dr. Van.



"For some employees, wellness programs are the first foray into assessing their health risks, so having safe and reliable means of obtaining laboratory evaluations, such as blood sugar and cholesterol tests, is crucial. We have had great success partnering with Alere and using the Alere Cholestech LDX[®] System for our biometric screening programs."

Conclusion

The study indicates that biometric screening is one of the first, and sometimes only, methods of identifying individuals at high risk for poor medical outcomes (e.g., type 2 diabetes mellitus and cardiovascular disease) and at increased financial risk going into the future. Screenings with immediate test results and outcomes via wellness programs are a valuable resource for employees that should be pursued for the sake of keeping employees and, ultimately, employers healthy. This study demonstrates that a simple investment into employer-sponsored biometric screenings via wellness programs can identify high-risk employees who are expected to incur higher costs and improve treatment outcomes for all employees.



1. American Hospital Association. Health and wellness programs for hospital employees: results from a 2015 American Hospital Association survey. October 2016. (Accessed August 1, 2017, at <http://www.hpoe.org/Reports-HPOE/2016/2016-Health-and-Wellness-Brief-FINAL-10-12-16.pdf>.)
2. Fu PL, Bradley KL, Viswanathan S, et al. Trends in biometric health indices within an employer-sponsored wellness program with outcome-based incentives. *Am J Health Promot* 2016;301:453-7.
3. Vanichkachorn G, Marchese M, Roy B, et al. Biometric screening and future employer medical costs: is it worth it to know? *J Occup Environ Med* 2017; ePub ahead of print.

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