

OPEN

# The Stock Performance of C. Everett Koop Award Winners Compared With the Standard & Poor's 500 Index

Ron Z. Goetzel, PhD, Raymond Fabius, MD, Dan Fabius, DO, Enid C. Roemer, PhD, Nicole Thornton, BA, Rebecca K. Kelly, PhD, RD, and Kenneth R. Pelletier, PhD, MD (hc)

**Objective:** To explore the link between companies investing in the health and well-being programs of their employees and stock market performance. **Methods:** Stock performance of C. Everett Koop National Health Award winners ( $n = 26$ ) was measured over time and compared with the average performance of companies comprising the Standard and Poor's (S&P) 500 Index. **Results:** The Koop Award portfolio outperformed the S&P 500 Index. In the 14-year period tracked (2000–2014), Koop Award winners' stock values appreciated by 325% compared with the market average appreciation of 105%. **Conclusions:** This study supports prior and ongoing research demonstrating a higher market valuation—an affirmation of business success by Wall Street investors—of socially responsible companies that invest in the health and well-being of their workers when compared with other publicly traded firms.

Workplace health promotion programs are designed to improve the health and well-being of employees and their dependents. Companies that excel in their workplace wellness efforts can apply for and win recognition through numerous vehicles including earning the C. Everett Koop National Health Award (Koop Award). The Koop Award is conferred annually by The Health Project, a nonprofit organization founded in 1994 to promote employer achievements in improving population health cost-effectively.

An opportunity presented itself to study whether Koop Award winning companies, recognized by The Health Project for improving workers' health and saving money for the employer, outperform other publicly traded firms based on their stock market performance. Specifically, we were interested in examining stock price appreciation, a public measure signifying a company's increasing worth, for companies that win the Koop Award, compared with "average" companies comprising the Standard and Poor's (S&P) 500 Index. The hypothesis tested was that companies applying for and winning the Koop Award, thereby earning the distinction of

## Learning Objectives

- Discuss the authors' proposed framework for how company health and wellness programs affect business performance, including the roles of corporate social responsibility and job satisfaction.
- Summarize the new findings on the stock market performance of companies that won the C. Everett Koop Award, compared to the S&P 500.
- Discuss the insights and critiques presented in the accompanying editorial by O'Donnell, including the similarities and differences in the findings of the three new studies of health promotion programs and stock market performance.

having outstanding workplace health promotion (wellness) programs, would realize financial gains that extend beyond those simply offering traditional employee benefit programs.

## BACKGROUND

The genesis for this analysis is an increasing interest in, and adoption of, workplace health promotion programs by US businesses, partly fueled by a specific provision of the 2010 Affordable Care Act (Section 2705) that encourages employers to implement comprehensive worksite health promotion programs. Currently, approximately half of all employers with more than 50 employees offer wellness programs of varying comprehensiveness, with large employers being more likely to have a complex program.<sup>1</sup> Initiation and expansion of these programs has been spurred by the belief that organizations will benefit at the business or enterprise level by reducing the company's operating costs, in the form of medical expenditures, as well as improving worker productivity, although that assumption has been challenged by some critics.<sup>2</sup>

The connection between a company's health promotion program and overall business results assumes high employee awareness of and engagement in workplace health promotion and disease prevention programs. A further assumption is that participation in the workplace program will lead to improved health, more engaged and happier employees, and to improved workforce performance, all of which impact the organization's bottom line. It is also assumed that loyalty and commitment to the organization are influenced by workers' attitudes toward their employers and that workers who feel their company truly cares about their health and well-being are more likely to remain with the organization longer and be more motivated to perform at a high level.

## STOCK PERFORMANCE OF COMPANIES FOCUSED ON HEALTH AND SAFETY

Research showing a relationship between companies' human resources practices, in particular their health and safety programs, and their stock performances is now emerging. In 2013, Fabius et al published a seminal article in which the authors tracked the stock price of companies winning the American College of Occupational and Environmental Medicine's Corporate Health Achievement Award (CHAA). The analysis followed theoretical

From the Institute for Health and Productivity Studies (Dr Goetzel, Dr Roemer, and Ms Thornton), Johns Hopkins Bloomberg School of Public Health, Washington, DC; Truven Health Analytics (Dr Goetzel), The Health Project, Bethesda, Maryland; HealthNEXT (Dr Raymond Fabius), Unionville, Pennsylvania; Cooper Medical School of Rowan University (Dr Dan Fabius), Camden, New Jersey; The University of Alabama (Dr Kelly), Tuscaloosa; and University of Arizona School of Medicine, Tucson and University of California (Dr Pelletier), San Francisco.

All authors assist employers in developing and evaluating workplace health promotion programs.

Authors Goetzel, Fabius, Fabius, Roemer, Thornton, Kelly, and Pelletier have no relationships/conditions/circumstances that present potential conflict of interest.

The JOEM editorial board and planners have no financial interest related to this research.

This is an open-access article distributed under the terms of the Creative Commons Attribution-Non Commercial-No Derivatives License 4.0, where it is permissible to download and share the work provided it is properly cited. The work cannot be changed in any way or used commercially.

Address correspondence to: Ron Z. Goetzel, PhD, Senior Scientist, Director, Institute for Health and Productivity Studies, Johns Hopkins Bloomberg School of Public Health, Washington, DC; Vice President, Consulting and Applied Research, Truven Health Analytics, 7700 Old Georgetown Road, Suite 650, Bethesda, MD 20814 (ron.goetzel@truvenhealth.com).

Copyright © 2015 American College of Occupational and Environmental Medicine

DOI: 10.1097/JOM.0000000000000632

stock purchases of CHAA winning companies and found that winners outperformed the S&P 500 by a ratio approaching 2:1.<sup>3</sup> Across an investment period from 1999 to 2012, the cumulative return on the theoretical portfolio containing CHAA winning companies was 79% (ie, \$1.79 returned for every dollar invested) compared with a relatively flat return for the S&P 500 (ie, about a dollar earned for a dollar invested). After weighting based on winners' scores in the CHAA rating system, starting the portfolio with the first winner, and excluding outliers, this relationship persisted, indicating a strong correlation between companies with exemplary health promotion and safety programs and improved financial performance.<sup>3</sup>

## CORPORATE SOCIAL RESPONSIBILITY AND BUSINESS PERFORMANCE

In addition to examining workplace health promotion practices and financial performance, researchers have examined the stock performance of companies rated high in corporate social responsibility (CSR). CSR can be broadly defined as having company-sponsored programs that aim to improve the environment, the community, or the health and safety of workers.

The evidence that socially responsible companies do no worse, and may in fact do better business-wise, than their less socially responsible counterparts dates back to the 1990s. In a seminal study entitled, *Corporate Responsibility and Financial Performance: The Paradox of Social Cost*, accounting professors Pava and Krausz analyzed the financial performance of 53 companies defined as "socially responsible" and compared them with a control sample of firms matched by industry and size.<sup>4</sup> Among the activities considered reflective of social responsibility was the provision of health promotion programs to employees, which the authors described as "viable and legitimate" institutional mechanisms to alleviate an important social problem: poor health habits among workers. The analysis concluded that, across almost every one of the financial outcome measures examined, from an accounting standpoint, socially responsible firms were not penalized in the marketplace because of their humanistic practices.

### CASE STUDY IN CORPORATE SOCIAL RESPONSIBILITY: JOHNSON & JOHNSON

One of the classic case studies highlighted by Pava and Krausz in their analysis was Johnson & Johnson. As an example of CSR, the authors pointed to chief executive Jim Burke's decision to recall one of the company's best selling products, Tylenol, when it was discovered that some containers were tainted with cyanide, leading to seven deaths. Johnson & Johnson put the health and safety of its customers first by asking retailers to send back the product, offering free replacements in a safer tablet form, and developing new tamper-proof packaging. Johnson & Johnson returned Tylenol to store shelves within 2 months of the recall. The company's share of the analgesic market, which dropped from 37% to 7% during the recall, recovered to 30% a year later.<sup>5</sup>

In 1979, Burke invested in Johnson & Johnson's state-of-the-art workplace wellness program, branded internally as *Live for Life*. The simple messaging for the program was that it intended to help Johnson & Johnson employees be "the healthiest in the world."<sup>6</sup> Burke's stated expectation was that improving employees' health and well-being would limit unnecessary health care spending, improve worker performance, and ultimately have a positive impact on the company's financial performance.

Extensive evaluation of Johnson & Johnson's program concluded that Burke's initiative indeed produced a healthier workforce, reduced unnecessary medical costs, and improved productivity and attitudinal outcomes among workers.<sup>6-12</sup> In explaining the value of health promotion, Johnson & Johnson

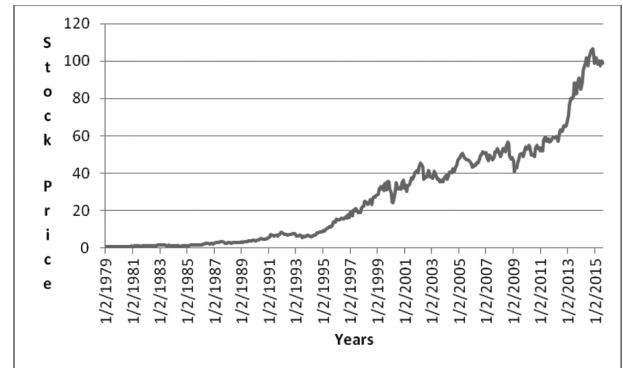


FIGURE 1. Johnson & Johnson adjusted stock price (USD)—1979 to 2015.

executives were quick to point out that promoting worker health aligned with the company's Credo, which placed a higher value on employees and their families than shareholders.<sup>13</sup>

The Johnson & Johnson health and wellness program, now in its fourth decade, continues to produce positive health and economic results,<sup>14</sup> and is a Koop Award winner.<sup>15</sup> For Johnson & Johnson, investing company resources in an award-winning program does not seem to have had a negative influence on the company's stock performance. As shown in Figure 1, Johnson & Johnson's adjusted stock price from 1979, when the *Live for Life* program first began, to the present day continues to increase in value, an indication of the stock market's valuation of the company that undoubtedly also includes a reflection of the corporation's attention to worker health.

Readers are justified to question a cause-effect relationship between Johnson & Johnson's health promotion program and its stock performance. As is true for Johnson & Johnson, there are many factors that may influence a company's financial standing, including the quality and attractiveness of its products and services; effectiveness of its sales and marketing divisions; research and development innovations; competence of senior and middle management; and overall reputation and brand recognition. Countless articles and texts have explored what might be key success factors for American enterprise, but until recently, little attention has been paid to company efforts to improve workers' health, broadly defined, and the effects on overall business performance.

### OTHER STUDIES EXAMINING CORPORATE SOCIAL RESPONSIBILITY

A comparison of the 5-year performance of socially responsible and non-socially responsible companies to the S&P 500 found that socially responsible companies outperformed their counterparts across different screening and analysis methods.<sup>16</sup> For example, within the biotechnology industry, disclosure of human resources expenditures was found to significantly increase stock prices in the 2 days after the release of an annual report.<sup>17</sup>

Although correlation does not imply causation, a study of the fashion and textile industry offers further support to the connection between social responsibility and business outcomes. The study hypothesized that companies with OHSAS 18001 workplace safety certification would have improved sales figures because consumers are particularly concerned about labor conditions in the fashion and textile industry as a result of previous scandals involving sweatshops and child labor law violations.<sup>18</sup> Sales among certified companies did show significant positive change during the study period, suggesting customers' concerns for worker safety may play a role in creating financial gain among companies with certified health and safety programs. The authors also noted reduced

accidents and disruptions, leading to higher product quality and delivery, as possible explanations for the better financial results.

There is some evidence that the relationship between stock performance and employee health and safety programs, and more broad CSR programs, may depend on the statistical methods used in analysis, and that the implementation of successful programs may be the result, rather than the cause, of improved financial performance.<sup>19</sup> More recent studies counter this argument, and suggest that markets favor firms with higher CSR value<sup>20</sup> because they have higher expected growth rates.<sup>21</sup> Finally, CSR companies may be at a particular advantage in times of market volatility. Studies have shown that a reputation for CSR can provide resiliency and protect firms from stock price crashes associated with crisis, even when industry and crash risk factors are controlled.<sup>22,23</sup>

### JOB SATISFACTION AS A COMPONENT OF CORPORATE SOCIAL RESPONSIBILITY

Job satisfaction is often mentioned as a byproduct of being employed by a socially responsible company. Being satisfied at work can be traced back to certain conditions such as receiving informative communication about the state of the business, feeling support and care from leaders, having pride in one's work, gaining recognition for contributions to the organization's mission, achieving camaraderie with fellow workers, being secure in one's job, expressing trust in management's decision-making capabilities, and feeling aligned with one's personal skills and talents and the organization's purpose.<sup>24</sup>

In this article, we posit that job satisfaction is a proxy for employee health and well-being: that is, that they are correlated with one another. This assumption is supported by two meta-analyses: one by Faragher et al evaluated the research evidence from 485 studies linking self-report measures of job satisfaction to measures of physical and mental well-being. That analysis found an overall correlation between job satisfaction and all health measures to be  $r = 0.312$ . Low job satisfaction was most strongly associated with mental/psychological problems including burnout ( $r = 0.478$ ), self-esteem ( $r = 0.429$ ), depression ( $r = 0.428$ ), and anxiety ( $r = 0.420$ ), although the correlation with subjective physical illness was more modest ( $r = 0.287$ ). The authors concluded that job satisfaction level is likely an important factor influencing the health of workers.<sup>25</sup>

A second, more recent meta-analysis by Bowling et al also found positive relationships between job satisfaction and life satisfaction, happiness, positive affect, and the absence of negative affect. Their analysis of longitudinal studies suggests a causal relationship between subjective well-being and job satisfaction.<sup>26</sup>

Achieving high levels of job satisfaction is often tied to the company's human resources management strategy, which, according to Landy, is the "holy grail" of organizational behavior.<sup>27</sup> Huselid found that good human resources practices are correlated with lower turnover, higher sales, increased market value, and profitability.<sup>28</sup> There is also research showing a positive association between the availability of work-life programs and firm productivity.<sup>29</sup>

Importantly, the company's human resources philosophy drives actions relevant to talent acquisition and retention, employee engagement, and ultimately job satisfaction—all valuable organizational advantages that make it difficult to "poach" workers.<sup>24</sup> Literature supports the notion that job satisfaction correlates with loyalty to an organization and reluctance to accept job offers from competitors.<sup>30</sup>

In a knowledge worker-based economy, job satisfaction is likely to influence "intangible" performance measures such as building customer relationships, introducing creative thinking into group discussions, mentoring subordinates, and creating a pleasant work environment among coworkers. These so-called "intangibles," while hard to quantify, are likely necessary for the success

of an enterprise. Organ describes a pleasant work environment as a "gift" from the firm that allows workers to thrive.<sup>31</sup>

Given the above, is there evidence that job satisfaction influences company valuation in the stock market? A study of the relationship between employee job satisfaction (a proxy for employee health and well-being, broadly defined) and firm value—using *Fortune's* "100 Best Companies to Work for in America"—found that stock portfolios invested in Best Companies outperformed benchmarks by 3.8% annually, and the better performance persisted even after adjustment for a variety of industry and firm characteristics.<sup>24</sup>

In short, there are many outlets through which a company's investment in workers, including offering excellent health promotion programs, may boost job satisfaction and thereby improve the company's financial performance. The Johnson & Johnson example described above, while informative, only represents an  $n$  of one. The question addressed in this article is whether one company's experience can be generalized to other publicly traded companies that also have documented best-practice health promotion programs.

### STUDY OBJECTIVE

To determine whether companies that won the Koop Award achieve a higher market valuation, as determined by their stock appreciation over time, when compared with the average performance of companies comprising the S&P 500 Index.

### THE HEALTH PROJECT C. EVERETT KOOP AWARD

Before we compare the stock performance of Koop Award winners to the S&P 500 Index, it is important to understand the Koop Award itself and the criteria for winning it.

The Koop Award is conferred annually by The Health Project,<sup>32</sup> a nonprofit organization formed to bring about critical attitudinal and behavioral changes in the American health care system. The Health Project was launched in 1992 when Dr Roger Porter, assistant to President George H. W. Bush, challenged the business community to reduce America's health spending by keeping people healthy in the first place. With the support of Dr Porter and the White House, founders Carson Beadle and Daniel Wright set out to find health promotion and disease prevention programs with documentary evidence showing they improved health and saved money. The late Dr C. Everett Koop, US Surgeon General from 1982 to 1989, became the Honorary Chair of The Health Project and for many years conferred its annual award until his deteriorating health late in life prevented him from attending the award ceremony. The Health Project has been self-sustaining over the past 20 years and board members provide their services without compensation.

There are three considerations for selecting Koop Award winners. The company's program must: (1) meet The Health Project's goal of reducing the need and demand for medical services, (2) share the objectives of Healthy People's workplace health promotion targets, and (3) prove net health care and/or productivity cost reductions as a result of improving population health. Importantly, documenting health behavior change and risk reduction *plus* cost savings are required to win the Koop Award, and applications must include objective, verifiable statistical data reflecting program accomplishments in the form of charts, graphs, and tables. Reduced utilization and related cost savings are considered as long as they are not achieved through benefit plan design, rationing, outsourcing, or utilization review. Critically important is the need to tie cost savings to health improvements and risk reduction for the target employee population.

Each year, sponsors of workplace health promotion programs compete for the Koop Award by submitting an application that adheres to a strict protocol. There is no cost to apply for and receive

**TABLE 1.** Koop Award Winners, Stock Symbols, Award Year, and Stock Purchase Year

Koop Award Winner	Stock Symbol	Award Year	Stock Purchase Year
BP America	BP	2014	2011
Eastman Chemical	EMN	2011	2008
Prudential Financial	PRU	2011	2008
Pfizer, Inc.	PFE	2010	2007
The Volvo Group	VOLVF	2010	2007
Alliance Data Systems Corp	ADS	2009	2006
Dow Chemical Company	DOW	2008	2005
International Business Machines	IBM	2008	2005
Pepsi Bottling Group	PBG	2007	2004
WE Energies	WEC	2007	2004
Union Pacific Railroad	UNP	2005	2002
UAW-GM	GM	2004	2001
Johnson & Johnson	JNJ	2003	2001
FedEx Corp.	FDX	2002	2001
Motorola Solutions Inc.	MSI	2002	2001
Citibank	C	2001	2000
Union Pacific Railroad	UNP	2001	2000
Northeast Utilities	NU	2001	2000
Caterpillar Inc.	CAT	2000	2000
Cigna Corp.	CI	2000	2000
DaimlerChrysler Corporation	DDAIF	2000	2000
Fannie Mae	FNMA	2000	2000
Aetna	AET	1999	2000

the award, and there is no benefit other than the prestige attached to the award itself. Submissions are independently reviewed by 10 to 15 board members, including academics, applied researchers, and practitioners in the workplace health promotion field. Individual ratings are then compiled and discussed at an annual board of directors meeting, where the final selection of winners is decided. Because the bar is set high for the Koop Award, compared with other recognition programs, the number of winners each year is small, ranging from one to four during the period examined in this study.

## METHODS

The approach taken for this analysis closely parallels that used by Fabius et al in their analysis of CHAA winners.<sup>3</sup> In our stock portfolio simulation study, shares of 26 Koop Award winning and publicly traded companies in years 1999 to 2014 were purchased retrospectively (see Table 1). With the exception of January 2001, when stock in the first set of winners was purchased, the annual day of trading and rebalancing was the first business day in October to coincide with the annual announcement of the Koop Award winners.

Koop Award winners that were not publicly traded companies were excluded from the study; thus, there are no winners represented for the years 2006, 2012, and 2013.

The method for purchasing stock was as follows. The first simulated stock transaction occurred on the first day of trading in January 2001 when shares of 15 Koop Award winners for years 1999 to 2002 were purchased with \$10,000 equally invested among the 15 companies. In October 2001, one additional winner of the Koop Award for 2004 (GM-UAW) was added to the portfolio, and a rebalancing of dollars invested was made to purchase 16 stocks (15 original plus 1 new company). In October 2002, one additional company (Union Pacific) was added to the portfolio, the winner of the 2005 Koop Award, and once again, the portfolio was rebalanced to now include 17 companies. Following a similar pattern, each October winners from the following 3 years were added to the portfolio and the account was rebalanced to reflect their inclusion. This purchase strategy was repeated until all the winners were

included in October 2011. After that time, the portfolio was rebalanced each October and tracked until the last trading day in 2014.

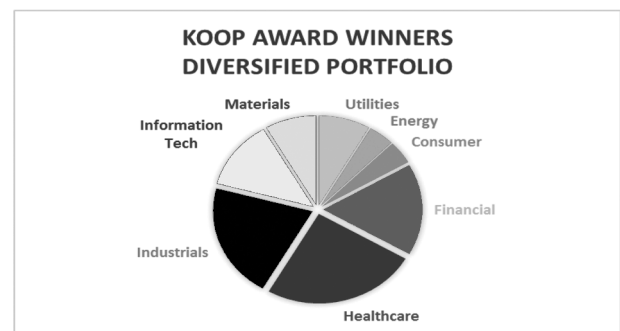
The investment rationale described above was supported by two considerations. First, we sought to establish a portfolio composed of at least 15 companies at the start to minimize the influence of a single or few firms and reflect a composite set of organizations with similar health promoting philosophies. Second, we wanted not only to invest in companies that were recognized at the time of stock purchase to be exemplary programs, but also to include those with programs that in the future would be recognized as excellent, earning them the Koop Award retrospectively. Thus, investing in companies in advance of winning the Koop Award was based on the assumption that these companies had already built strong cultures of health in advance of winning the award. In fact, to win the Koop Award, companies need to provide evidence that their programs have been in place for at least 3 years and that evaluation data for the program are reflective of a 3-year time horizon, at a minimum.

A few caveats to our investment methodology are worth noting. Award-winning companies that were part of a larger organization, such as BP America, were included. Other winners that underwent significant organizational changes but remained publicly traded, such as Motorola, were maintained in the portfolio. On the contrary, award-winning companies that were acquired were removed from the portfolio in the October year before this transaction and before rebalancing. For example, Pepsi Bottling Group was removed from the portfolio after being acquired by PepsiCo, and Chrysler was removed after its purchase by Daimler Chrysler. Lastly, repeat award winners (ie, Pfizer and Union Pacific Railroad) received a doubling of investment during the annual rebalancing after receiving the award a second time. The investment period ended on the last day of trading in 2014.

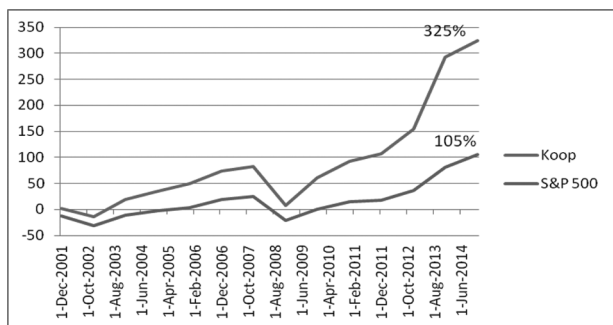
## RESULTS

The 26 companies comprising the Koop Award portfolio were well diversified across industries with 25% in health care, 21% classified as industrials, 17% in financial services, 13% in information technology, and the remainder across other business sectors (see Fig. 2).

Figures 3 and 4 display the cumulative total return for the Koop Award portfolio compared with the S&P 500 Index for the 14-year period starting in 2001 and ending in 2014. As shown, the Koop Award portfolio outperformed the S&P 500 by a ratio of about 2.35 to 1.0. Thus, an investment of \$10,000 in stocks listed on the S&P 500 in January 2001 would have returned \$20,500 in December 2014, reflecting slightly more than a doubling of the initial investment. In contrast, a similar \$10,000 investment in the Koop Award portfolio in January 2001 would have returned \$42,500 over 14 years, thus generating about a \$20,000 advantage over a return from the S&P 500.



**FIGURE 2.** Distribution of Koop Award Winners across industries.



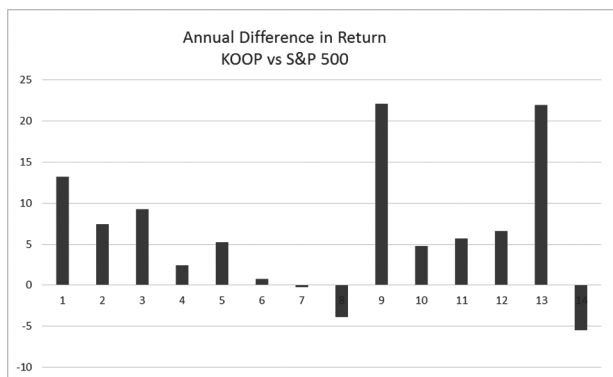
**FIGURE 3.** Cumulative stock performance (in %) of Koop Award Winners compared with the S&P 500 Index (2001–2014).

When evaluating the performance of the Koop Award winning employers against the S&P 500, the Koop Award winners outperformed the market in 11 of the 14 years studied (see Figs. 3 and 4)

Table 2 shows the dividend yield and price to earnings ratio (P/E) for the Koop Award companies compared with the S&P 500 Index. Our analysis found that the Koop winners produced higher dividends than the S&P 500 (2.31% vs 1.95%) and that their P/E ratio was lower (17.31 vs 18.27), meaning their performance was not based on an overvaluing of the companies. In fact, Koop Awardees were generally cheaper to purchase (ie, their price was less inflated than the market average) and therefore a better value for investors.

**DISCUSSION**

Our analysis of Koop Award winners' stock performance compared with that of the S&P 500 highlighted one aspect of corporate social responsibility: a company's treatment of its workers and, more specifically, its provision of an exceptional workplace health promotion program. The question posed by this analysis was whether offering award-winning workplace health promotion programs, as recognized by The Health Project in the form of the Koop Award, was correlated with the value placed on the company by Wall Street investors. Stock performance data from 26 winners of the Koop Award over a 14-year time horizon were analyzed and compared with the performance of the S&P 500 companies. The Koop winners outperformed the S&P 500 by 2.35 to 1.00, and the net gain from a \$10,000 investment in these companies would have yielded about a \$22,000 profit (ie, \$42,500 vs \$22,500). The determination of company value in this analysis was imposed by the open market—individual and institutional investors who bought



**FIGURE 4.** Annual difference in return—Koop Winners versus S&P 500 (year 1 [2001]–year 14 [2014]).

**TABLE 2.** Dividend Yield and Price to Earnings Ratio for the Koop Award Portfolio Compared With the Benchmark S&P 500 Index

	Koop Award Winner Index (n = 26)	S&P 500 Index (n = 502)
Dividend yield	2.31	1.95
Price-earnings ratio	17.13	18.27

shares in the winning companies and therefore benefited from such purchases by beating the stock market, on average. Stock performance was chosen as a broad metric of market value because it includes all publicly available information about a company.<sup>33</sup>

Among industry experts, the Koop Award represents the highest level of recognition for having an effective and efficient workplace health promotion program. The Koop Award is distinguished from other recognition programs in that an applicant is required to submit data to expert reviewers showing that a program is not only well designed and properly implemented, but also that it achieves measurable health and economic benefits. Reviewers for The Health Project are directed to place a higher importance on outcomes than program structure or process variables when evaluating applications. Consequently, an excellent program that lacks data to document its outcomes is not considered eligible for the Koop Award even if, at face value, it appears worthy. Whereas, historically, there has always been at least one winner of the Koop Award, it is possible that no award is granted in a given year because none of the applicants satisfies the documentary data requirements imposed by the review committee. To ensure transparency in the Award selection process, The Health Project Board of Directors decided early on to make specific details regarding the design and evaluation of programs available to the public on its website, so that anyone wishing to replicate the program can review the data submitted and independently evaluate program effectiveness.

The main criticism of this and similar analytic methods concerns the issue of reverse causality. Our analysis posits that providing best in class, comprehensive, and cost-beneficial workplace health promotion programs leads to a more effective workforce and thereby a more successful enterprise. The reverse may be true. It may be that effective companies with good management, attractive products and services, and cutting-edge innovation decide to offer these programs because they can afford to do so and they have the fortitude to build and maintain a great wellness program. The question that can then be asked is: why do some companies have excellent programs while others are satisfied with mediocre ones that offer no apparent benefit to workers or the firm? In this study, we did not probe this issue, nor did we explore why some companies invest more in their people, whereas others spend more on matters that ostensibly are unrelated to employee health and wellness. What is impressive, however, is that Koop Award applicants consider it a priority to establish and sustain excellent workplace health promotion programs, evaluate their effects, and, if they win, announce publicly their achievements.

There are, no doubt, many other factors that drive a business's financial success, some of which have been previously mentioned. For one, a company viewed as caring for its workers may attract individuals who wish to belong to an organization that values their individuality and treats them as part of a "family," instead of easily replaced cogs in a large corporate machine.

Other factors likely to contribute to a company's stock price include its brand image,<sup>34</sup> whether customers view it as socially responsible,<sup>35</sup> and whether a subset of investors—those with a humanistic bent—support the company because of its "good work."<sup>36</sup>

## STRENGTHS AND LIMITATIONS

This analysis has several strengths. First, it was performed over a long time horizon, 14 years, and therefore highlights the sustainability of Koop Winner companies' financial strength, through upward and downward swings in the marketplace. When the overall market dropped in value, the Koop Award companies also lost value, but not as much. And when the market turned bullish, the Koop Award portfolio performance advanced at a faster pace than the overall market.

Second, unlike other indices, the Koop Award portfolio represents a diverse group of firms, which is not heavily weighted by any one industry that may, by itself, outperform the market average. In addition, the annual rebalancing process greatly reduces the influence of a single stock's performance on the portfolio in total.

Third, the analysis considered company practices even before winning the Koop Award. For most of the companies studied, their stock was purchased while they were building their programs and preparing an application with an understanding that their programs needed to be in place for a long enough period (at least 3 years) to be viewed as sustainable and, therefore, worthy of recognition. Thus, unlike other short-term triggers of stock price fluctuation, the Koop Award did not immediately cause a higher share price but rather the company's ongoing commitment to workers' health created a cumulative positive impression of the company and, perhaps even in the mind of investors, a reason to bet on the company's future.

A fourth strength of the analysis is the small size of the Koop Award portfolio, which was limited to just 26 companies. The most followed stock portfolio in the United States is the Dow Jones Industrial Index, which includes only 30 companies but is seen as a bellwether for the overall market because companies included in the Index are representative of American industry as a whole. Likewise, the companies in the Koop Award portfolio (some of which are also found on the Dow Jones Industrial Index) can be viewed as employers who consider employee health a business priority, devoting staff time and resources to its enhancement.

In contrast to the above strengths, there are several limitations worth noting. First, it is unlikely that investors in general are aware of the Koop Award and its implications for business. Investors are more focused on traditional financial metrics, such as the company's revenue growth and profitability. They typically do not attend to human resources issues, but perhaps they should. Today, more companies are realizing the connection between employees' health and well-being and financial outcomes, such as medical spending, absenteeism, safety, and productivity.<sup>37-40</sup> Many companies are also recognizing that workers' health extends beyond individual choices and that the organization can influence health behaviors through its programs, practices, and policies.<sup>39</sup>

A second limitation is that the companies examined are not solely concerned with employee health; they are also likely to be socially responsible on other dimensions that influence their market valuation including pollution policies, recycling, fair employment practices, diversity among senior leadership, and strong employee training and development programs. Combined, these social responsibility endeavors likely coalesce to affect the firm's overall business outlook. Certainly, the company's investment in workplace health promotion and occupational safety programs is not the sole reason for its financial success. It stands to reason that the socially responsible practices mentioned above correlate with one another and that they are complementary in terms of the company's culture and persona. Furthermore, being socially responsible to one's own workers likely spills over to other aspects of the business and to the external branding of the company. Thus, financial success may be due to multiple messages communicated internally and externally that the company is virtuous on many levels. In short, although there is good reason to speculate that workplace health promotion played

a role in the company's financial success, there are many other important variables to consider and further research is needed to disentangle these multiple influences.

In terms of future research, it may be possible to pair health promoting versus non-health promoting companies in similar industries, with a similar workforce, and with similar business metrics (eg, sales, profits) to determine their relative stock performance. Ideally, companies with great workplace programs would be compared with their "twin" counterparts that either lack a program altogether or have one that is poorly designed and therefore not likely to achieve positive health outcomes. If other attributes of excellent companies can be controlled, with only one variable differentiating one set of organizations from the other set—that is, evidence-based excellent workplace programs—then greater confidence can be attributed to the claim that workplace health promotion programs may be a key differentiator between average and outstanding business performance. Without question, the study outlined above would be difficult to perform given the many "moving parts" that contribute to company success—and holding those constant when making comparisons would be challenging. Nonetheless, alternative study designs should be explored and, if feasible, implemented.

## CONCLUSIONS

This study supports prior and ongoing research demonstrating the business value of employing exemplary workplace health promotion and health protection programs. In this analysis, companies that earned recognition by winning the Koop Award had higher stock valuation—an affirmation of business success by Wall Street investors—compared with the "average" S&P 500 Index companies. While tempting to attribute all or most of these companies' financial success to their investment in workplace health promotion programs, many factors likely contributed to their stock performance, only one of which was their attention to improving workers' health and well-being.

It is important to note that the Koop Award winners spent many years, even decades, in crafting and fine-tuning their programs to become best practices for other corporations to emulate. They did so after being made aware of the need for such programs within their company's culture and then tailoring programs to achieve optimum results. This required senior and middle management support, strategic communications, worker engagement, and credible measurement. Koop Winners, unfortunately, are the exception to the rule. Whereas almost all American businesses claim to have a wellness program in place, far fewer have programs that are effective and sufficiently comprehensive to make a difference in workers' health and business outcomes.<sup>1,41</sup> It is, therefore, heartening to discover that businesses that truly do well for their workers also do well for their investors.

Readers are cautioned against thinking that introducing a workplace health promotion program will provide a "quick fix" for the company's financial performance. It is unlikely that rapidly assembled health promotion programs, divorced from the company's mission and culture, can produce the kind of extraordinary stock performance documented in this article. Designing and implementing an award-winning program takes time, resources, and determination that, with some patience, can sustainably pay off from a business standpoint.

Companies wishing to emulate the experience of Koop Award winners are encouraged to prepare a long-term business plan for employee health and well-being, which spans at least 3 years and may eventually be extended to a decade or more. The plan should be updated annually as business or other conditions dictate. Importantly, the plan should include metrics aligned to the organization's mission that are relevant to key stakeholders in the enterprise, including workers, leaders, and investors. When a company's

internal focus on employee health and well-being is clearly defined, articulated, and executed, the overall effectiveness of the program is high. This may shape the manner in which the external market views and values the enterprise.

This study, along with others using similar methods, highlights the importance of directing companies' attention toward health promotion and health protection programs, which until recently were viewed as a responsibility exclusive to corporate human resources, benefits, and risk management departments. Given the many changes affecting population health and health care delivery, and the role employers can play in improving the health and well-being of people at work, there may come a day when recognition of exemplary workplace health promotion programs, like the Koop Award, may signal a clear "buy" recommendation for Wall Street investors. We are not there yet, but future research may help untangle the key ingredients associated with companies' financial success, one of which may well be the company's willingness to build and sustain a culture of health.

## REFERENCES

1. Matke S, Liu H, Caloyeras JP, et al. *Workplace wellness programs study*. Santa Monica, CA: Rand Corporation; 2013. Available at: <https://www.dol.gov/ebsa/pdf/workplacewellnessstudyfinal.pdf>. Accessed August 10, 2015.
2. Goetzel RZ, Henke RM, Tabrizi M, et al. Do workplace health promotion (wellness) programs work? *J Occup Environ Med*. 2014;56:927–934.
3. Fabius R, Thayer RD, Konicki DL, et al. The link between workforce health and safety and the health of the bottom line: tracking market performance of companies that Nurture a 'culture of health'. *J Occup Environ Med*. 2013;55:993–1000.
4. Pava ML, Krausz J. *Corporate responsibility and financial performance: a paradox of social cost*. Westport, CT: Quorum Books; 1995.
5. Rehak J. Tylenol made a hero of Johnson & Johnson: the recall that started them all. *New York Times*; March 23, 2002. Available at: [http://www.nytimes.com/2002/03/23/your-money/23iht-mjj\\_ed3.html](http://www.nytimes.com/2002/03/23/your-money/23iht-mjj_ed3.html). Accessed August 10, 2015.
6. Isaac F. Leaders of a new frontier. *Am J Health Promot*. 2001;15:365–367.
7. Blair SN, Piserchia PV, Wilbur CS, Crowder JH. A public health intervention model for work-site health promotion: impact on exercise and physical fitness in a health promotion plan after 24 months. *JAMA*. 1986;255:921–926.
8. Blair SN, Smith M, Collingwood TR, Reynolds R, Prentice MC, Sterling CL. Health promotion for educators: impact on absenteeism. *Prev Med (Baltim)*. 1986;15:166–175.
9. Breslow L, Fielding J, Herrman AA, Wilbur CS. Worksite health promotion: its evolution and the Johnson & Johnson experience. *Prev Med (Baltim)*. 1990;19:13–21.
10. Holzbach RL, Piserchia PV, McFadden DW, Hartwell TD, Herrman AA, Fielding JE. Effect of a comprehensive health promotion program on employee attitudes. *J Occup Environ Med*. 1990;32:973–978.
11. Jones RC, Bly JL, Richardson JE. A study of work site health promotion program and absenteeism. *J Occup Environ Med*. 1990;32:95–99.
12. Shipley RH, Orleans CT, Wilbur CS, Piserchia PV, McFadden DW. Effect of the Johnson & Johnson Live for Life program on employee smoking. *Prev Med (Baltim)*. 1988;17:25–34.
13. Johnson & Johnson. Our Credo. 1943. Available at: [http://www.jnj.com/sites/default/files/pdf/jnj\\_ourcredo\\_english\\_us\\_8.5x11\\_cmyk.pdf](http://www.jnj.com/sites/default/files/pdf/jnj_ourcredo_english_us_8.5x11_cmyk.pdf). Accessed August 10, 2015.
14. Henke RM, Goetzel RZ, McHugh J, Isaac F. Recent experience in health promotion at Johnson & Johnson: lower health spending, strong return on investment. *Health Aff (Millwood)*. 2011;30:490–499.
15. The Health Project. *Winners Listed Alphabetically*; 2015. Available at: <http://thehealthproject.com/winning-programs/winners-listed-alphabetically/>. Accessed August 10, 2015.
16. Muise M. *Returns on Investment of Socially Responsible Firms Versus Non-Socially Responsible Firms: A Financial Market Perspective*. Minneapolis, MN: Walden University; 2009.
17. Ilacqua C. *Corporate Social Responsibility's Impact on Stock Prices: A Quantitative Study of the U.S. Biotechnology Industry*. Phoenix, AZ: University of Phoenix; 2008.
18. Fan D, Lo CKY. A tough pill to swallow? *J Fash Mark Manag*. 2012;16:128–140.
19. Nelling E, Webb E. Corporate social responsibility and financial performance: the 'virtuous circle' revisited. *Rev Quant Financ Account*. 2009;32:197–209.
20. Gregory A, Whittaker J. Exploring the valuation of corporate social responsibility—a comparison of research methods. *J Bus Ethics*. 2013;116:1–20.
21. Gregory A, Tharyan R, Whittaker J. Corporate social responsibility and firm value: disaggregating the effects on cash flow, risk and growth. *J Bus Ethics*. 2013;124:633–657.
22. Kim Y, Li H, Li S. Corporate social responsibility and stock price crash risk. *J Bank Financ*. 2014;43:1–13.
23. Schnietz KE, Epstein MJ. Exploring the financial value of a reputation for corporate social responsibility during a crisis. *Corp Reput Rev*. 2005;7:327–345.
24. Edmans A. The link between job satisfaction and firm value. *Acad Manag Perspect*. 2012;26:1–19.
25. Faragher EB, Cass M, Cooper CL. The relationship between job satisfaction and health: a meta-analysis. *Occup Environ Med*. 2005;62:105–112.
26. Bowling NA, Eschleman KJ, Wang Q. A meta-analytic examination of the relationship between job satisfaction and subjective well-being. *J Occup Organ Psychol*. 2010;83:915–934.
27. Landy FJ. *Psychology of Work Behavior*. Pacific Grove, CA: Brooks/Cole; 1989.
28. Huselid MA. The impact of human resource management practices on turnover, productivity, and corporate financial performance. *Acad Manag J*. 1995;38:635–672.
29. Konrad AM, Mangel R. The impact of work-life programs on firm productivity. *Strateg Manag J*. 2000;21:1225–1237.
30. Mitchell TR, Holtom BC, Lee TW, et al. Why people stay: using job embeddedness to predict voluntary turnover. *Acad Manag J*. 2001;44:1102–1121.
31. Organ DW. A reappraisal and reinterpretation of the satisfaction-causes-performance hypothesis. *Acad Manag Rev*. 1977;2:46–53.
32. The Health Project. Award Information; 2015. Available at: <http://thehealthproject.com/award-information/>. Accessed August 10, 2015.
33. Fama EF. Efficient capital markets: a review of theory and empirical work. *J Financ*. 1970;25:383–417.
34. Moskowitz M. Choosing socially responsible stocks. *Bus Soc Rev*. 1972;1:71–75.
35. Solomon RC, Hanson KR. *It's Good Business*. New York, NY: Atheneum; 1985.
36. Cheng B, Ioannou I, Serafeim G. Corporate social responsibility and access to finance. *Strateg Manag J*. 2014;35:1–23.
37. Soler RE, Leeks KD, Razi S, et al. A systematic review of selected interventions for worksite health promotion: the assessment of health risks with feedback. *Am J Prev Med*. 2010;38:S237–S262.
38. Chapman L. Meta-evaluation of worksite health promotion economic return studies: 2012 update. *Am J Health Promot*. 2012;26:TAH1-12.
39. Goetzel RZ, Shechter D, Ozminkowski RJ, Marmet PF, Tabrizi MJ, Roemer EC. Promising practices in employer health and productivity management efforts: findings from a benchmarking study. *J Occup Environ Med*. 2007;49:111–130.
40. Baicker K, Cutler D, Song Z. Workplace wellness programs can generate savings. *Health Aff*. 2010;29:304–311.
41. Matke S, Schnyer C, Van Busum KR. *A review of the U.S. workplace wellness market*. Santa Monica, CA: Rand Corporation; 2012. Available at: [http://www.rand.org/pubs/occasional\\_papers/OP373.html](http://www.rand.org/pubs/occasional_papers/OP373.html). Accessed August 10, 2015.