



2016 C. Everett Koop Application



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Section I. Executive Summary of Program and Evaluation Highlights



In 2011 Boise School District had over 3,000 employees dispersed over 58 geographical locations. District employees had been experiencing an increased prevalence of poor health behaviors, elevated health risks, and consistently increasing health care costs. That year the district made the strategic decision to implement a comprehensive worksite wellness program. To help plan, implement, administer and evaluate the wellness program the district contracted with WellSteps LLC.

The Boise School District wellness program was designed to help employees improve health behaviors and to make the overall work culture more supportive of good health practices. The program provided employees with the awareness, education, motivation, tools, strategies, supportive policies and social support needed to adopt and maintain healthy behaviors. The program incorporated administrative planning, baseline data evaluation, culture change and communication strategies, biometric screening, behavior change campaigns, and incentive tracking. Four behavior change campaigns lasting four to eight weeks were offered each year. These campaigns are designed to improve health behaviors and build self-efficacy by reducing the behavior change process to manageable weekly tasks. The entire program was designed to maximize employee engagement and impact.

Few employee wellness programs of this size have been subjected to such a high level of scrutiny. To date, four different program outcome evaluations from the district have been published. This application reviews the program design as well as the one, two, and three-year outcomes associated with changes in employee health behaviors, elevated health risks, health care costs, and self-reported measures of job performance and job satisfaction. In short, the program has produced evidence of improved nutrition, physical activity, sleep quality, and reductions in tobacco and alcohol usage. It has demonstrated reductions in stress and depression, and improvements in life satisfaction. The program also appears to have reduced elevated levels of systolic and diastolic blood pressure, cholesterol, and glucose. Evaluation of six years of medical claims data showed that wellness program participants cost significantly less than non-participants. For every dollar the district spent on wellness programming, it saved \$3.50 in health care costs. From 2009 to 2014 the district experienced a health care cost trend that was zero. Finally, the district also showed that healthy behaviors were significantly associated with a reduction in presenteeism and an increase in job performance and job satisfaction.

As a publicly funded entity, Boise School District has demonstrated that its investment in employee health and wellness has significantly improved employee health and reduced employee health care expenses. The district's wellness program has been a benefit to district employees, their families, and the tax paying citizens of Boise Idaho.

Section II. Narrative Description of Program and Evaluation Results

The Worksite

Starting in 2011, Boise School District began offering a comprehensive employee wellness program to its 3,284 eligible employees. The district has enjoyed many successes and positive outcomes with its wellness program and hopes to share its formula for success with other similar organizations. Boise School District ranks second in its state in size, with six high schools, eight junior high schools, and 31 elementary schools. Each employee is located in one of the 58 locations within the district. The aim of this multi-year program was to improve employee health behaviors, lower elevated health risks, prevent chronic diseases, and curb rising healthcare costs. The district program was unusual in that it was applied in multiple locations with the majority of the employees being teachers. Little evidence is available that demonstrates the impact of a well-designed wellness program on this population segment. In 2011, approximately 73.3% of employees were female and the average age was 48.6 years. From 2011 to 2016, the benefits design plan was unchanged except for the addition of incentives for wellness program participation. Employees and spouses could qualify for lower premiums, co-pays, and deductibles when they participated in the program. Baseline health risk appraisal data revealed that this employee population mirrored the health risks and behaviors of other employee populations located in Idaho. The program was also made available to spouses and retirees (employees who retired from the district but were not yet eligible for Medicare). The program began in the fall of 2011 and continues today.



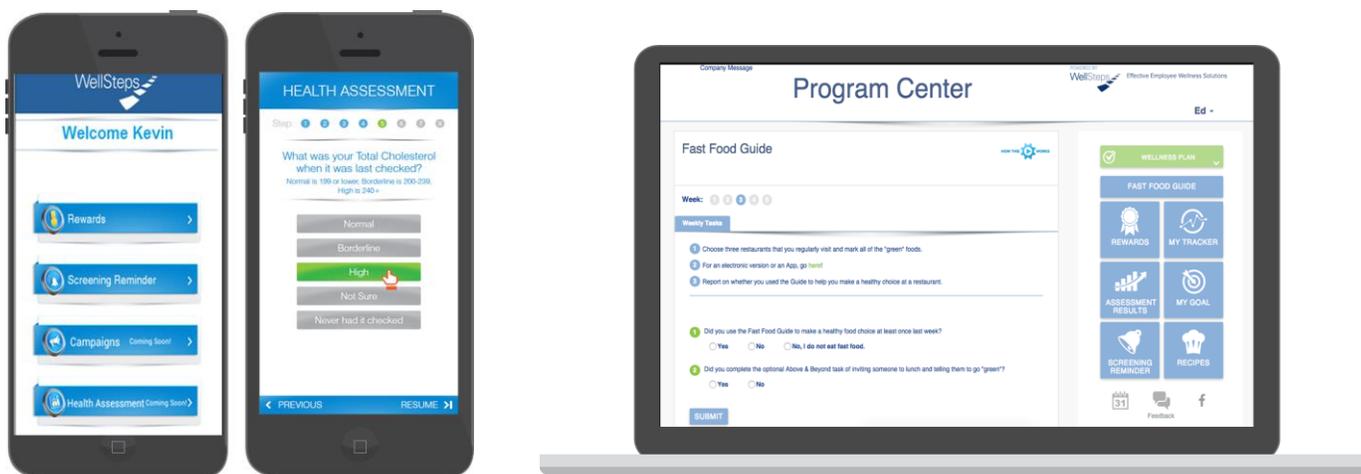
The Wellness Program

Boise School District hired WellSteps LLC to provide the design, implementation, administration, and evaluation of its wellness program. The decision to hire a vendor was based on limitations within the district due to its size, budget, and lack of wellness support staff. The decision was also based on the fact that the district's insurance carrier provided access to a variety of population health management tools such as case management, a nurse hotline, an EAP, and disease management, but not wellness.

This wellness model combines elements of the RE-AIM Framework¹ and the AMSO Model proposed by O'Donnell.² The model includes the essential elements of an effective wellness intervention in an easy-to-explain and understand format. There may be more scientifically grounded intervention models, but they are not as simple to explain or apply in a worksite setting.

The driving philosophy of this model is based on the premise that employee-related expenses such as absenteeism, presenteeism, and medical costs are greatly influenced by poor employee health. Poor health is the direct result of elevated health risks -- most of which are driven by poor lifestyle choices. Therefore, to impact employee-related expenses, wellness programming must focus on the root cause of poor health -- unhealthy behaviors. To do this, the wellness program relies on two foundational themes: Reach and Impact. *Reach* is the ability of the wellness intervention to reach every single eligible employee with the correct messaging, the correct communication channel, and the correct call to action all executed at just the right moment. The most effective worksite wellness interventions are of no value if they do not reach employees. Reach is also dramatically impacted by program design and ease-of-use. To maximize reach,

every component of the wellness program can be streamed to any mobile device or computer and programming is available in multiple languages. Many employees and significant others complete the personal health assessment and behavior change campaigns using a mobile device. Each intervention and user interface is focus group tested to verify that the goal of ease-of-use is met.



Impact is more technically known as the effect size of the intervention. The wellness program impacts employees because it provides all the education, awareness, motivation, tools, strategies, supportive policies, and social support needed to help employees adopt and maintain healthy behaviors. With effective reach and impact, the wellness program is able to improve health behaviors, reduce elevated health risks, lower chronic disease prevalence, and impact employee-related expenses. To help an organization maximize the effectiveness of its wellness program, every component of the program is created to focus on and maximize both reach and impact.

A key element of the program is the use of technology to facilitate program delivery and administration. Rather than rely on a stand-alone wellness web portal, the wellness program is an interactive behavior change platform that uses social media, video, weekly tasks, quizzes, team competitions, wearable device integration, goal-setting, reminders, text messaging, push notifications, and incentive tracking to promote healthy behaviors. This leveraged technology platform provides a careful blend of user convenience and face-to-face interactions with other program participants. For example, in the Move It Coast to Coast campaign, participants work together as a team to support each other in engaging in physical activity as their team competes with others to “race” across the United States. This campaign uses behavior change strategies and social support to help all team members increase physical activity and applies technology to track progress and enable communication within and between teams. The technology enables the wellness program to provide the same interventions to employees working at 58 locations. It ensures a high level of wellness program fidelity across a geographically dispersed workforce.

Leadership and Culture Change Support

The district has demonstrated considerable leadership support for wellness. The district superintendent, benefits directors, benefits committees, and managers had previously decided to make creating a healthy workplace a district priority. Budgets were created and time was allotted to all employees to learn about and participate in the wellness program. Each year, mandatory meetings included substantial discussion and introduction to wellness programming and healthy living. District leadership had also designated a

district wellness committee and charged the committee with assisting in the design and implementation of the wellness program.

Planning the various aspects of the district wellness program involved collection and evaluation of district health insurance claims data, input from the wellness committee and district wellness coordinator, and aggregate HRA data received from a previous insurance carrier. All of this was used to design and administer the wellness strategy.

Communication and Implementation

The school district wellness program began with extensive program pre-implementation. Four months before the program was launched, a marketing campaign was initiated. This campaign included visible leadership support for the wellness program, posters, postcards, emails, newsletter articles, blogs, and department announcements. Postcards announcing the program were mailed to the home of each employee to help notify spouses and significant others. Introduction to and explanation of the wellness program was made to all employees during the required fall meetings.

Table 1 shows each of the implementation components. The program incorporated administrative planning, baseline data evaluation, culture change and communication strategy, biometric screening, behavior change campaigns, and more. Four different behavior change campaigns, lasting four to eight weeks, were offered each year. Campaigns are designed to improve health behaviors and build self-efficacy by reducing the behavior change process to manageable weekly tasks. They may include short videos, simple quizzes, games, materials, wearable device integration, demonstrations, team competitions, behavior change strategies, incentives, and peer support. Table 1 shows a sampling of the program components.

TABLE 1. Wellness Program Components

Intervention	Description
Personal Health Assessment (PHA)	Before participating in the program, employees completed a self-reported Personal Health Assessment (PHA), after which they received individualized electronic feedback. Aggregate data is used in program design and evaluation and is collected every year.
Culture Change Strategies	To create a healthy culture, the district used the Checklist to Change . This free culture audit tool helps worksites assess health-promoting policies and environments. Each quarter, the onsite wellness program coordinator and wellness committee use these results to identify one policy or environmental support to implement. Each year, the district made multiple environmental changes including vending machine changes, cafeteria changes, creation of walking paths, and rules for healthy birthday food celebrations.
Rewards	<i>Rewards</i> is an incentive management platform. Employees earn points and progress towards the benefit-based incentive when they complete program requirements such as the PHA, biometric screening, or campaign completion. Rewards automatically tracks, reports, and updates each employee’s incentive progress. Employees can also use the app or program center to report completed items or verify completion by submitting documentation. <i>Rewards</i> helps each employee see their incentives progress.
My Tracker	Regardless of the wearable device an employee may have, My Tracker automatically syncs all wearable devices and displays activity data in each employee’s dashboard. My Tracker also automatically uploads wearable data to the Rewards incentive platform. District employees who have wearable devices can automatically get credit

	for being active.
Biometric screening	Each year, the district requested that each employee complete a biometric screening. This could be done onsite or by any employee's primary care provider. To submit proof that the screening was completed, employees could fax, email, or use the app to image and upload the screening form.
Disease Management	Employees who indicated that they had diabetes, cardiovascular disease, or asthma could participate in specific disease management challenges. The challenges are two-week behavior change programs designed to help employees adhere to care recommendations, medication management, and work towards adopting and maintain healthy behaviors.
Screening Reminder	Using age and gender data from the PHA, each employee received emails and text messages reminding them to get their age and gender specific cancer screenings. Many district employees received incentive points when they completed the appropriate screenings.
Behavior Change Campaigns	
The Culprit and the Cure	Participants apply science-based healthy lifestyle principles from The Culprit and the Cure. Weekly tasks include reading and quizzes, watching brief video vignettes, reviewing personal assessment results, setting change goals, teaching friends or family key principles, and sharing the book with someone else at the end of the campaign
Fast Food Nutrition Guide	Participants learn to use the Fast Food Guide to make healthy fast food choices. Weekly tasks include reading and quizzes, going out to eat with others and using the guide to make a healthy choice, practice rating foods, and sharing the book with someone else at the end of the campaign.
Move It! Coast to Coast	Participants compete with coworkers to engage in 30 minutes of physical activity at least 3 days a week for 6 weeks. Weekly tasks include watching a video about the benefits of exercise, logging steps or minutes, team meetings, and team exercise, when appropriate.
Good Night	Participants make changes in their sleep habits, routine, and environment to improve sleep quality. Weekly tasks include watching brief video vignettes, assessing pre-sleep behaviors, setting sleep goals and schedules, modifying sleep environment, and journaling.
Maintain, Don't Gain	Participants apply strategies to manage caloric intake and to increase energy expenditure during the holidays. Weekly tasks include weighing in and applying behavioral strategy to manage weight.
Food Makeover	Participants modify their home environment by replacing unhealthy food with healthier options. Weekly tasks include watching brief video vignettes, assessing and changing food environment at home, applying healthy substitutions at the store, making and using a shopping list, and finding and preparing healthy recipes.
Stress Free	Participants learn to identify and manage stressors by applying simple strategies. Weekly tasks include watching brief video vignettes, assessing common stressors, practicing a stress management technique, applying strategies to eliminate or reduce stressors.
Posture Perfect	Participants learn how to avoid injury with proper lifting techniques and posture. They inventory the workspace for stressors and learned how to properly sit and stand.
Sugar Busters	Participants watch a few short videos that will help them recognize the many forms of sugar. They learn how to avoid hidden sugar and are invited to replace sugary breakfasts and desserts with healthier options, to apply "sugar busting" substitutions, to prepare a healthy recipe, and to hide or throw out a high-sugar food.

Overcome Overeating	Participants watch several brief videos about strategies that people use to overcome overeating. They are taught to identify the foods, cues, and situations that influence eating and complete weekly tasks to apply what they learned.
Good Fat Bad Fat	Participants are taught about types and sources of unhealthy fats and healthy fats. They also prepare healthy meals that include the use of good fats.
Balance It All	Participants watch a short video about priorities then take the "the Big Rock" assessment. They learn how to plan around priorities, how to say "No," how to schedule time for themselves, and how to delegate.
Incentives	
Campaign Specific Incentives	Five percent of the wellness budget is dedicated to incentives. Gift cards, event tickets, prizes, and gifts are awarded to a random selection of employees who complete a campaign. These incentives are immediate, small, and external incentives. In addition, all campaign participants are encouraged to understand, recognize, and enjoy all of the intrinsic benefits that accompany healthy behaviors. The goal of these small incentives is to help employees stay motivated as they start to identify and enjoy the intrinsic benefits of a healthy lifestyle.
Benefits-based Incentives	In 2011 and 2012, employees who completed the PHA and biometric screening qualified for a \$20 lower office copay, a deductible that was reduced from \$700 to \$350, and a \$40/month premium discount. In 2013, employees were asked to also complete at least one behavior change campaign or approved alternate activity. As with the small incentives, each employee was shown how to identify and appreciate all of the intrinsic incentives that come from healthy living.

Addressing Disparities

Large school districts consist of educators, administrators, and support staff. For every educator, there is at least one individual working in food service, janitorial, transportation, facilities management, and grounds keeping. Support staff often have lower pay scales, language barriers, and limited computer access. To address these challenges, all district employees were given the opportunity to participate in all aspects of the program via computer, mobile app, or with paper-pencil materials. In addition, all aspects of the program are available in Spanish for those who have English language limitations. Finally, all audio content was enabled to accommodate the hearing impaired.



Evaluation Methodology and Results

The Boise School District wellness model is based on the notion that poor health behaviors lead to elevated health risks. Elevated health risks are the primary driving factors behind high chronic disease prevalence and elevated employee-related expenses such as medical costs, prescription costs, and productivity losses. Thus, improving unhealthy behaviors should be the focus of every program. This same model can also be applied to the evaluation of the program. Because program evaluation has been built into the very foundation of the model, there are many opportunities for program evaluation. To date, data from the district's wellness program have resulted in four independent, peer-reviewed publications.

Program evaluation first involved looking at descriptive data on program participation and engagement. Next, the impact of the program on unhealthy behaviors and elevated health risks was determined. Finally, the program was evaluated to determine the impact on health care costs, productivity, and job satisfaction. Each of these evaluations was completed by researchers at Brigham Young University. Each evaluation has published or been accepted for publication in the health promotion scientific literature.

Participation and Engagement

Program participation was measured in several different ways. Employees who were able to complete the personal health assessment, biometric screening, and complete at least one behavior change campaign each year qualified for the district's wellness incentive. This incentive included a \$20 lower office copay, a \$40 lower monthly insurance premium, and a lower insurance deductible (\$350 vs \$700 per year). In 2011, 2012, and 2013, participation increased from 65.6% to 74.1% to 81.1%, respectively. In 2013, there were 3,282 eligible employees. Of those, 80% completed the personal health assessment, 81% completed a biometric screening, and 59% completed at least one behavior change campaign. Most employees completed 2 or more campaigns.

Improvements in Health Behaviors

The Personal Health Assessment (PHA) includes 30 health and lifestyle questions modified from the Behavior Risk Factor Surveillance System. The PHA can be completed online, using the mobile app, or via paper and pencil. The evaluation of health behaviors required three successive PHA completions: baseline, year 1, and year 2. Table 2 shows changes in health risks across all three time periods. This analysis includes all employees who completed the PHA three years in a row. One and two year improvements were seen in exercise, fruit and vegetable consumption, days of quality sleep, tobacco and alcohol use, and self-rated health. Table 2 also shows significant improvements in mental health-related outcomes such as stress,

depression, and life satisfaction. This two year evaluation is currently in press with the journal Preventive Medicine³.

Table 2. Health Behavior and Emotional Health Outcomes Over 2 Years (n=1,873)³

Health Behaviors	Baseline	Year 1	Year 2	F	P
Exercise (d/wk)	3.34±1.40	3.42±1.35	3.50±1.34	11.20	<0.0001
Exercise (min/wk)	165.4±155.0	177.9±159.2	186.5±174.5	11.39	<0.0001
Fruits (serv/d)	2.38±1.15	2.49±1.18	2.54±1.20	20.09	<0.0001
Vegetables (serv/d)	2.70±1.20	2.81±1.22	2.81±1.19	10.90	<0.0001
Sleep (d/wk)	4.76±1.69	4.71±1.70	4.82±1.64	3.32	0.0361
Smoking (d/wk)*	4.35±1.33	5.43±2.71	4.27±3.08	10.53	<0.0001
Alcohol (drinks/d)**	1.31±0.72	1.16±0.79	1.10 ±0.79	30.00	<0.0001
Self-Rated Health	7.96±1.37	7.88±1.34	7.92±1.35	7.31	0.0007
Mental Health-Related Outcomes					
Stress	1.99±1.98	1.77±1.88	1.80±1.88	11.41	<0.0001
Depression	0.76±1.35	0.66±1.27	0.66±1.28	3.43	0.0324
Life Satisfaction	8.38±1.35	8.48±1.29	8.49±1.29	8.76	0.0002

Data are mean±sd.

*Includes only those who reported smoking (n=77).

**Includes only those who reported drinking (n=691).

All data adjusted for age and sex.

A mixed model repeated measures evaluation³ was also applied to employees who demonstrated the worst health behaviors at baseline. Table 3 shows the program impact on individuals who had the worst health behaviors at baseline. After 12 and 24 months, dramatic improvements were seen in those employees who had previously reported low levels of baseline exercise, fruit and vegetable consumption, days of restful sleep, and high levels of tobacco and alcohol use.

Table 3. Improvements in Health Behaviors Among Those with the Worst Health Behaviors³

Health Behavior	Baseline	Year 1	Year 2*
<2 days of exercise/week, n=502	1.46 days	2.29 days	2.47 days (+69%)
<60 minutes/week, n=373	18.79 min	113.20 min	134.71 min (+617%)

<3 daily servings fruits/veggies, n=426	2.46 servings	3.48 servings	3.63 servings (+47%)
<3 days of restful sleep/week, n=407	2.23 days	3.17 days	3.36 days (+51%)
Smokers (days per week, n=77)**	4.35 days	5.43 days	4.27 days (-1.6%)
Alcohol Use (drinks/day, n=691)	1.31 drinks	1.16 drinks	1.10 drinks (-16%)

*All changes are statistically significant (p<.05)

** 11 of 77 smokers quit at 2 years

Reductions in Elevated Health Risks

Evaluation of health risk changes was based on repeated measures data from 2,411 employees.⁴ Participants' BMI, SBP, DBP, glucose, and total cholesterol levels were measured at baseline and again after one year. Means between groups and mean change scores were evaluated using the F statistic in models adjusting for age, sex, and baseline categories of the biometric measures, while the Mantel-Haenszel chi-square was used to test for trends in changing biometric scores across levels of age. The numbers of high risk employees at baseline were 683 for BMI, 360 for SBP, 242 for DBP, 72 for glucose, and 216 for total cholesterol. Among participants, 47.4% lowered BMI, 36.2% lowered systolic blood pressure, 57.4% lowered diastolic blood pressure, 66.9% lowered blood glucose, and 40.4% lowered total cholesterol. The percentages moving out of the high risk categories after one year were 11.4%, 39.4%, 70.7%, 38.9%, and 40.7%, respectively. Table 4 shows changes in biometric health risks. There was consistent risk reduction among those who had the unhealthiest numbers at baseline.

Table 4. Mean Change Scores for Biometric Measures According to Baseline Risk⁴

	No.	Mean at Baseline*	Mean Change through 1 year*	F Test P Value†
BMI (Kg/m²)				
Normal (< 25)	903	22.4	0.2	< 0.0001
Overweight (25.0-29.9)	738	27.2	0.1	
Obese (≥ 30.0)	683	35.2	-0.3	
Missing	62			
Systolic Blood Pressure (mmHg)				
Normal (<120)	906	110.9	10.9	< 0.0001
Pre-hypertensive (120-139)	1086	128.5	3.9	
High (140-159)	322	146.1	-3.7	
Dangerous (≥160)	38	167.3	-12.6	
Missing	59			
Diastolic Blood Pressure (mmHg)				
Normal (<80)	1330	71.2	1.8	< 0.0001
Pre hypertensive (80-89)	778	83.8	-4.2	
High (90-99)	209	93.2	-8.7	
Dangerous (≥100)	33	105.6	-15.9	
Missing	61			
Glucose (mg/dL)				
Normal (<110)	2134	92.0	-2.9	< 0.0001
IFG (110-125)	117	115.1	-7.4	
Diabetes (≥126)	72	170.4	-27.1	
Missing	88			
Total CHL (mg/dL)				

Normal (<200)	1434	169.1	10.5	< 0.0001
Borderline (200-239)	691	215.6	-1.7	
High risk (≥240)	216	260.3	-14.6	
Missing	70			

^aAdjusted for age and sex.

^bBased on Type III Sums of Squares.

Program Impact on Health Care Costs

Health care cost data for school district employees during the academic years 2009 through 2014 were linked with wellness program participation status. Additional program information was obtained from health risk appraisals and biometric screenings conducted in the academic years ending in 2012 through 2014. The main outcome measures were claim frequency and cost of medical claims. The complete evaluation was published in Preventive Medicine Reports, Volume 3, June 2016.⁵

Individual wellness program participation data were then combined with individual medical cost data to allow for comparison of the medical costs between wellness program participants and non-participants. Six years of medical cost data were evaluated, including the three years prior to wellness program implementation. The “pre-program” cost data was used to statistically remove pre-existing differences in cost between participants and non-participants. During the three-years prior, program non-participants had slightly higher medical costs (\$3,414 vs \$3,308). No differences existed in age or sex between participants and non-participants. Post-implementation, there was a dramatic difference in the cost of medical care between wellness program participants and non-participants in 2012 and 2013 and to a lesser extent in 2014. (Table 5)

Table 5. Employees Filing Claims and Average Payment per Academic Year According to Participation Status in the Wellness Program⁵

Academic Year	Participants		Non participants		Total Annual \$ Payment
	Number	Average Annual \$ Payment per Employee	Number	Average Annual \$ Payment per Employee	
2011-12	2218	3752.8	1051	4094.9	12,484,324
2012-13	2391	3160.0	811	4635.2	11,466,264
2013-14	2729	3153.4	554	3423.7	10,582,863

Note: Average annual \$ payment per eligible employee was significantly lower each year for those in the wellness program compared with those not in the program (t statistic p = 0.0348, 0.0064, 0.0244, respectively).

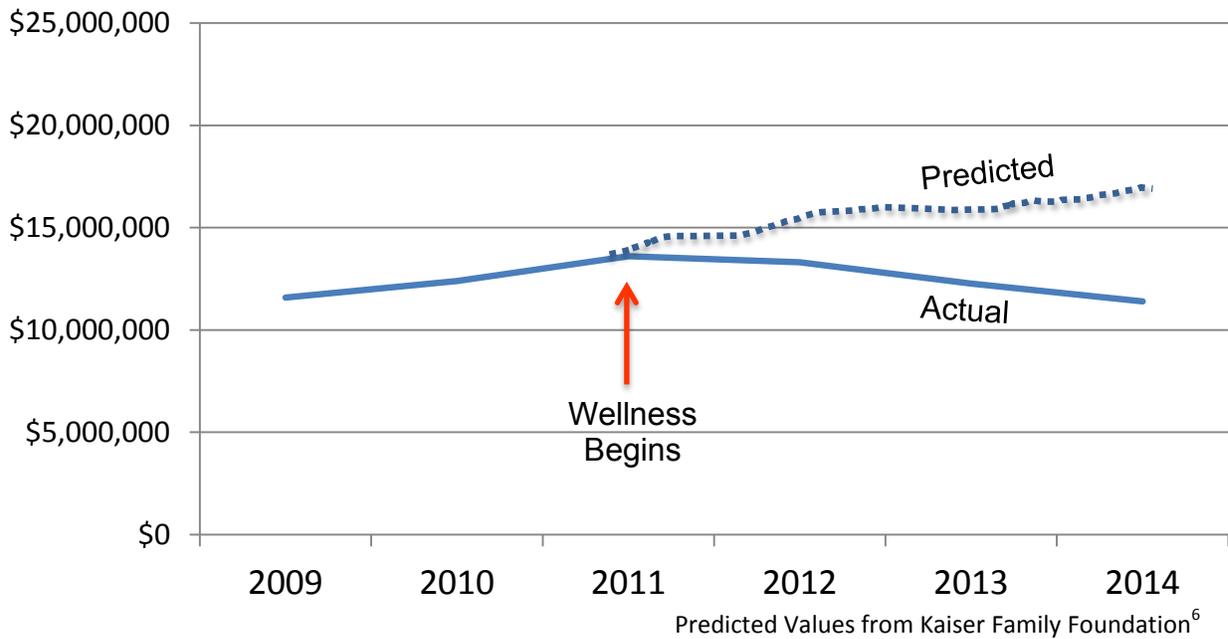
*Adjusted for the age and sex distribution of the incentive plan participants.

From 2012 to 2014, the program participants cost the district \$5,025,138 less in medical costs than non-participants. It is highly likely that this cost savings is primarily due to the impact of the comprehensive wellness program. The cost of providing the wellness program during the same three year period was \$1,412,736. After subtracting program costs, the cost savings from the wellness program was \$3,612,402. Thus, the benefit to cost ratio for the program was 3.56 (\$5,025,138/\$1,412,736).⁵ During this study there were no changes in the district’s health plan design.

Figure 1 below shows the predicted medical costs had the district followed the same cost trends of comparable worksites. This prediction provides a good estimate of what the cost trend would have been in the absence of a wellness program. But the district did not experience the predicted trend of comparable worksites. Rather, district medical costs peaked in 2011, and then decreased each year through the end of

the evaluation period (2014). The district medical costs in 2014 (\$11,390,481) were *lower* than the costs in 2009 (\$11,590,407) demonstrating a zero trend across the six-year evaluation period.

Figure 1. Predicted versus Actual Medical Costs for the District



Productivity and Job Satisfaction

To further evaluate the relationships between employee health behaviors and employee job performance, absenteeism, and job satisfaction, an additional evaluation was performed.⁷ This study examined the association between selected health behaviors and work-related outcomes among 2,395 district employees. Those who exercised at least five days per week, exercised 150 or more minutes per week, consumed five or more fruits and vegetables per day, or obtained five or more restful days of sleep per week, exhibited higher job performance, life satisfaction, self-rated health, and job satisfaction and lower levels of absenteeism, depression, stress, and loneliness ($P < 0.05$) than those who did not. Additionally, employees who reported achieving defined levels for the above four health behaviors simultaneously reported higher job performance (Prevalence Ratio=1.17; 95% CI=1.11-1.23), lower absenteeism (Prevalence Ratio =1.21; 95% CI=1.11-1.31), and higher job satisfaction (Prevalence Ratio =1.41; 95% CI=1.16-1.71). These results indicate that selected healthy behaviors, individually and when co-occurring, are significantly associated with productivity, satisfaction, and emotional health outcomes. Table 6 shows the prevalence ratios between each health behavior and each work outcome. These data provide additional evidence for the need to keep the wellness program focused on helping employees adopt and maintain healthy behaviors. They also help support the business case for a comprehensive wellness effort.

Table 6 Prevalence Ratios of Those Meeting or Not Meeting Criteria for Selected Health Behaviors for High Job Performance, Low Absenteeism, and High Job Satisfaction. (n=2,398)⁷

Health Behavior	High Job Performance ¹ (score of 9 or 10)		Low Absenteeism ² (score of 0 or 1)		High Job Satisfaction ¹ (score of 9 or 10)	
	PR	95% CI	PR	95% CI	PR	95% CI
Multiple Behaviors (all 4 vs. others)	1.17	1.11-1.23	1.21	1.11-1.31	1.41	1.16-1.71
Exercise days (5 or more vs. others)	1.10	1.06-1.16	1.18	1.10-1.26	1.34	1.13-1.57
Exercise minutes (150+ min vs. others)	1.07	1.02-1.12	1.19	1.01-1.16	1.33	1.13-1.56
FV (5 or more vs. others)	1.09	1.04-1.14	1.08	1.03-1.45	1.21	1.02-1.48
Restful Sleep (5 or more days)	1.19	1.13-1.26	1.15	1.07-1.24	2.00	1.62-2.45
Non-Smokers	1.04	0.91-1.17	1.28	1.03-1.59	0.99	0.67-1.47
Non-Alcohol Drinkers	0.97	0.93-1.02	0.98	0.92-1.06	1.06	0.89-1.25

PR=prevalence ratio; 95% CI = 95% confidence interval. PR represents the likelihood of reporting high job performance, low absenteeism, and high job satisfaction for each health behavior. For example, participants who exercised 5 or more days per week, were 1.10 times more likely to report “high” job performance and 1.18 times more likely to report “low” absenteeism compared to those who did not exercise at least 5 days per week.

-FV= fruit/vegetable intake.

-Multiple Behaviors = employees who reported meeting defined criteria for exercise days, exercise minutes, FV, and restful sleep. Those who obtained all 4 were compared to all other categories (0, 1, 2, and 3).

¹Scale of 1-10 (10 highest). ²Scale of 0-8 or more.

Note: Age and sex were used as control variables.

Conclusions

The Boise School District wellness program is an evidence-based program, carefully adhering to the RE-AIM and AMSO behavior change frameworks.^{1,2} With the completion of several published evaluations, the program is also evidence producing. These published evaluations demonstrate that the program helped district employees adopt and maintain healthy behaviors and reduce elevated health risks. The program also had a meaningful impact on the district’s medical cost trends. Boise School District has been able to demonstrate that a well-designed, comprehensive wellness program can be an effective and cost-effective way to improve employee health and reduce employee medical expenses. It is hoped that this Koop application will give other school districts and worksites a good understanding of how to create and implement an effective worksite wellness program.

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5. Merrill, R. M., LeCheminant, J. Medical Cost Analysis of School District Wellness Program. *Preventive Medicine Reports*, Volume 3, June 2016, Pages 159–165.
<http://www.sciencedirect.com/science/article/pii/S221133551600005X>
6. Kaiser Family Foundation: <http://kff.org/interactive/premiums-and-worker-contributions/>
7. LeCheminant, J., Merrill, R. M., Masterson, T. Health behaviors and work-related outcomes among school employees. *American Journal of Health Behavior*. 2015;39(3):345-51.



Required Tables

HERO Score Card Results

	Your Score	National average	Max # of points
Section 1: Strategic Planning	19	10	20
Section 2: Organizational & Cultural Support	36	23	50
Section 3: Programs	34	22	40
Section 4: Program Integration	15	5	16
Section 5: Participation Strategies	39	22	50
Section 6: Measurement & Evaluation	19	9	24
Total Score	162	91	200

Health Behaviors Evaluation

Variable Measured	Exercise, nutrition, sleep quality, tobacco use, alcohol use, stress, depression, life satisfaction, self-rated health
Study Design	Repeated measures baseline, 12 months, 24 months with control for confounders
Sample Size	N=1,873
Sample Selection Method	All eligible employees continuously employed for three years and with repeated personal health assessment data.
Data Source	Personal Health Assessment (based on BRFSS)
Outcome Result	Significant improvements across time in all measured behaviors with dramatic improvements in those with the worst behaviors at baseline
Analysis	Mixed models analysis. The individual participant was added to the statistical models as a random variable, and age and sex were included as covariates.
Relevant Statistics	p<.05
Publications	LeCheminant JD, Merrill RM. Maintenance and improvements in health behaviors and mental health-related outcomes in school employees enrolled in a worksite wellness program over 2 years. Preventive Medicine, (in press)

Changes in Health Risks

Variable Measured	Systolic and diastolic blood pressure, cholesterol, glucose, BMI, Glucose
Study Design	Repeated measures baseline, 12 months with control for confounders
Sample Size	N=2,411
Sample Selection Method	All eligible employees continuously employed during the time of the study, participated in the wellness program and had repeated biometric data.
Data Source	After a 12-hour fast, blood was analyzed by provider network laboratories which had been previously been CLIA certified.
Outcome Result	Numbers of high risk employees at baseline were 683 for BMI, 360 for SBP, 242 for DBP, 72 for glucose, and 216 for total cholesterol. Among participants, 47.4% lowered BMI, 36.2% lowered systolic blood pressure, 57.4% lowered diastolic blood pressure, 66.9% lowered blood glucose, and 40.4% lowered total cholesterol. The percentages moving out of the high risk categories after one year were 11.4%, 39.4%, 70.7%, 38.9%, and 40.7%, respectively.
Analysis	Means between groups and mean change scores were evaluated using the F statistic, in models adjusting for age, sex and baseline categories of the biometric measures, while the Mantel-Haenszel chi-square was used to test for trend in changing biometric scores across levels of age.
Relevant Statistics	p<.05
Publications	Merrill RM, Sloan A. Effectiveness of a health promotion program among employees in a western United States school district. J Occup Environ Med. 2014 Jun;56(6):639-44.

Changes in Health Care Expenditures

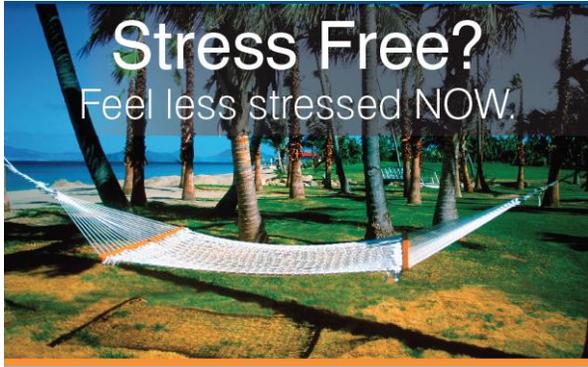
Variable Measured	Healthcare cost data for school district employees during the academic years ending in 2009 through 2014 were linked with wellness program participation status. Additional program information was obtained from health-risk appraisals and biometric screenings conducted in the academic years ending in 2012 through 2014
Study Design	Retrospective cohort design
Sample Size	N=2,438
Sample Selection Method	Analyses were based on 4,133 eligible employees of the district during the academic years 2009 through 2014. Of this number, 2,438 (59.0%) were employed continuously over these 6 years.
Data Source	The district is fully insured with a retained-retention agreement that makes the plan act very much like a self-funded health plan. Each month the district pays a health insurance premium for the cost of medical care and a small premium for reinsurance of catastrophic claims. High cost (catastrophic) claims above \$250,000 are reinsured by a stop loss policy and are not paid for by the school district.
Outcome Result	The percentage of employees filing at least one claim per time period was higher for those in the wellness program, but average medical claims payments were lower for those in the wellness program. After subtracting program costs, the cost savings from the wellness program was \$3,612,402. The benefit-to-cost ratio was 3.6.
Analysis	Medical costs were adjusted for medical-cost inflation. Average dollar (\$) payment per eligible employee was derived and presented according to wellness program participant status by year. The yearly payment for the non-wellness participants was also adjusted for the same distribution of age and sex as the wellness participants. The number of claims filed were compared between wellness and non-wellness program participants using the chi-square statistic. Average annual \$ payment per eligible employees was compared between wellness and non-wellness program participants using the t statistic.
Relevant Statistics	p<.05
Publications	Merrill, R. M., LeCheminant, J. Medical Cost Analysis of School District Wellness Program. Preventive Medicine Reports, Volume 3, June 2016, Pages 159–165. http://www.sciencedirect.com/science/article/pii/S221133551600005X

Health Behaviors and Productivity and Job Satisfaction

Variable Measured	Presenteeism, job performance, job satisfaction and selected health behaviors
Study Design	Cross sectional design with control for confounders
Sample Size	n=2,398
Sample Selection Method	The participants in the study were all employed in a public school district during the academic year 2011-2012. Only active employees were included; retirees and spouses were excluded. Participants without data were also excluded.
Data Source	Personal Health Assessment Data
Outcome Result	Those who exercised at least 5 days per week, exercised 150 or more minutes of exercise per week, consumed 5 or more fruits and vegetables per day, or obtained 5 or more restful days of sleep per week exhibited higher job performance, life satisfaction, self-rated health, and job satisfaction, and lower levels of absenteeism, depression, stress and loneliness (P<0.05) than those who did not. Additionally, employees who reported achieving defined levels for the above 4 health behaviors simultaneously reported higher job performance (Prevalence Ratio=1.17; 95% CI=1.11-1.23), lower absenteeism (Prevalence Ratio =1.21; 95% CI=1.11-1.31), and higher job satisfaction (Prevalence Ratio =1.41; 95% CI=1.16-1.71).
Analysis	Data were reported as mean ± sd. Results were statistically adjusted for age and sex. The GENMOD procedure was used to derive the prevalence ratio of employees reporting high job performance, low absenteeism, and high job satisfaction based on whether or not the employee reported obtaining a recommended level for selected health behaviors.
Relevant Statistics	p<.05
Publications	LeCheminant, J., Merrill, R. M., Masterson, T. Health behaviors and work-related outcomes among school employees. American Journal of Health Behavior. 2015;39(3):345-51.

Section III. Supplemental Documentation

Sample Behavior Change Campaign Posters



Stress Free?
Feel less stressed NOW.

Learn simple steps to **reduce the stress** in your life.

When you finish, you could win a **\$50 gift card!**

Join us for **Stress Free!**
Register at wellsteps.com/welcome
Already registered? We will contact you.

Starts:



Being active
has never been easier!

You will feel and look **better than ever.**

When you finish, you could win a **\$50 gift card!**

Join us for **Move It!**
Register at wellsteps.com/welcome
Already registered? We will contact you.

Starts:



Good night.
Had one lately?

Feel and function better with **improved sleep.**

When you finish, you could win a **\$50 gift card!**

Join us for **Good Night!**
Register at wellsteps.com/welcome
Already registered? We will contact you.

Starts:



Biggest Loser for Life
You and your team will compete to improve your health!

Learn the **six secrets** to optimal health!

When you finish, you could win a **\$25 gift card!**

Join us for **Biggest Loser for Life!**
Register at wellsteps.com/welcome
Already registered? We will contact you.

Starts: February 9, 2015



Program Center

Assessment Results for Jennifer

HOW THIS  WORKS



HEALTH REPORT CARD



BIOMETRIC DATA



HISTORY



SET A GOAL NOW

Health Report Card

Overall Grade: **B**  PRINT

Exercise Minutes Per Week

A

You said: 120

FEEDBACK ▾

Nights of Quality Sleep

B

You said: 3

FEEDBACK ▾

Fruit Servings Per Day

A

You said: 4

FEEDBACK ▾

Veggie Servings Per Day

B

You said: 2

FEEDBACK ▾

Grain Servings Per Day

A

You said: 4

FEEDBACK ▾

Days Smoked Per Week

B

You said: 2

FEEDBACK ▾

Alcoholic Drinks Per Day

A

You said: 0

FEEDBACK ▾

Time Depressed Last 3 Mos.

C

You said: 5

FEEDBACK ▾

Times Stressed Past 3 Mos.

A

You said: 1

FEEDBACK ▾

Body Mass Index

B

Your Rating: **Overweight**

FEEDBACK ▾

Blood Pressure

A

Your Rating: **Healthy**

FEEDBACK ▾

Cholesterol

A

Your Rating: **Healthy**

FEEDBACK ▾

 WELLNESS PLAN ▾

 REWARDS

 MY TRACKER

 ASSESSMENT RESULTS

 MY GOAL

 SCREENING REMINDER

 RECIPES

My Story



"Having WellSteps as a partner to our wellness program, has helped changed the lives of many of our employees in a positive direction. We can see the culture of wellness becoming a part of our company."

—Jessica Duhon
Lake Charles Memorial Health System

 SHARE YOUR STORY

 31
CALENDAR

 FEEDBACK

 FACEBOOK

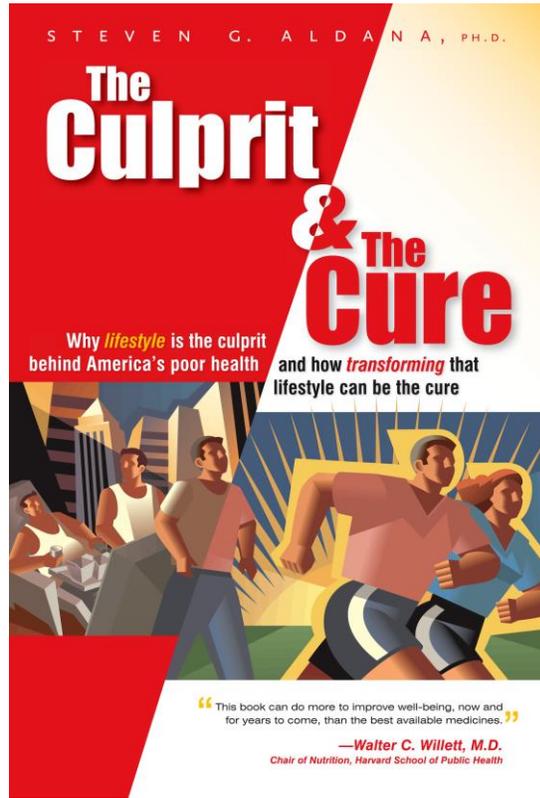
 WELLNESS COORDINATORS ▾



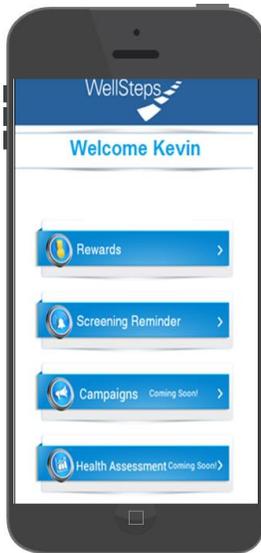


	Serving	Calories	Total fat (g)	Saturated fat (g)	Trans fat (g)	Cholesterol (mg)	Sodium (mg)	Dietary fiber (g)
Burger King								
Breakfast								
Croissan w/ Egg & Cheese	1 item	300	17	6	2	159	730	1
Croissan w/ Bacon, Egg & Cheese	1 item	340	18	6	2	219	1470	1
Croissan w/ Sausage, Egg & Cheese	1 item	530	36	12	2	229	1960	1
Croissan w/ Sausage and Cheese	1 item	410	29	11	2	45	930	1
Double Croissan w/ Bacon, Egg & Cheese	1 item	430	26	11	2	229	1360	1
Double Croissan w/ Ham, Egg & Cheese	1 item	420	23	9	2	235	2450	1
Double Croissan w/ Sausage, Egg & Cheese	1 item	730	68	21	3	269	1630	2
Double Croissan w/ Ham, Sausage, Egg & Cheese	1 item	420	25	10	2	229	1910	1
Double Croissan w/ Ham, Sausage, Egg & Cheese	1 item	580	41	15	3	240	2540	1
Double Croissan w/ Ham, Sausage, Egg & Cheese	1 item	590	43	16	3	240	1490	1
Extraneous Omelette S'wich	1 item	730	47	17	1	415	1860	3
French Toast Sticks	5 pc	390	26	5	5	0	440	2
Hash Brown Boards (any)	2 1/2 oz	230	15	4	5	0	450	2
Burgers								
Whopper	1 item	710	42	13	1	80	1020	4
Whopper w/ Cheese	1 item	830	40	10	2	110	1410	4
Double Whopper	1 item	910	61	22	2	160	1110	4
Double Whopper w/ Cheese	1 item	1060	69	27	3	180	1540	4
Whopper Jr.	1 item	590	22	7	1	45	550	2
Whopper Jr. w/ Cheese	1 item	430	26	9	1	55	770	2
Hamberger	1 item	510	13	5	1	40	550	1
Cheeseburger	1 item	350	17	8	1	50	710	1
Double Cheeseburger	1 item	440	22	10	1	70	600	1
Double Cheeseburger	1 item	530	31	15	2	100	1030	2
Bacon Cheeseburger	1 item	390	20	9	1	60	900	1
Bacon Double Cheeseburger	1 item	510	34	17	2	110	1250	2
Oh Veggie Burger	1 item	340	16	3	0	5	930	4
Angus Steak Burger	1 item	570	22	8	1	180	1270	3
Angus Bacon & Cheese	1 item	710	33	15	2	210	1990	3
Hotbars								
Big White Fries	1 item	520	30	8	0	50	840	2
Chicken Whopper	1 item	570	26	5	0	70	1410	4
Original Chicken Item	1 item	560	26	6	2	60	1270	3
Spicy Crisp Chicken S'wich	1 item	780	45	7	4	55	1730	6

App available on iPhone and android



The Culprit and the Cure Campaign



Verify any wellness activity with a single click and upload