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Worksite Wellness: Investing in Healthy Employees and Economies

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Abstract: Worksites are structured environments with social norms and policies. These "norms" positively or negatively influence health habits such as physical activity and food choices. This article describes a worksite wellness program conducted and evaluated by Extension. The program demonstrated significant changes in body weight, waist circumference, body mass index, amount of exercise, and stages of change for exercise and intake of fruits and vegetables. This article challenges Extension to partner with employers who have a growing interest in contributing to a healthy work force. Also included are suggestions and tools for conducting worksite wellness programs.

Why Worksite Wellness?

Joxel Garcia, Assistant Secretary for Health reporting on progress of Healthy People 2010, stated that ensuring good nutrition and controlling the trend towards overweight are critical to the wellbeing of the nation; not only for the health and life expectancy of the people, but for the productivity of the country (U.S. Department of Health & Human Services, 2008).

No one would argue that obesity and chronic diseases such as diabetes, heart disease, and asthma are costly to the individual citizen. Sixty-three percent of Americans are overweight or obese (BRFSS, 2007), and almost half of all Americans live with at least one chronic condition (Centers for Disease Control, 2005). Society shares in the cost of this burden. Medical care for those with chronic diseases accounts for 75% of the \$2 trillion our nation spends annually on health care (Centers for Disease Control, 2005). On the other hand, less than 1% of government healthcare investment goes toward primary prevention (CDC, 1992).

Preventable behaviors such as tobacco use, physical inactivity and poor food choices contribute to an unhealthy and unproductive work force. This translates to lost profits, which make it harder for businesses to compete in the global economy. Obese employees, for instance, take more sick leave than non-obese employees and are twice as likely to have high-level absenteeism (Tucker & Friedman, 1988; Peregrin, 2005). Faced with increased costs associated with these chronic conditions, many employers are implementing health promotion and/or disease prevention programs: 19.6% of employers offer some type of physical activity program, and 22.7% provide nutrition programs. Businesses have also implemented policies that make healthy food (37.4%) and fitness breaks (13.5%) available to their employees (Linnan et al., 2008).

Worksite wellness programs can be beneficial, reporting an average of \$3.48-\$4.60 saved for every \$1 invested in reduced health care costs (Soler et al., 2010; Aldana, 2001; Ozminkowski et al., 1999). In addition to health care savings, wellness programs can help businesses improve productivity through reduced absenteeism, better morale, and enhanced recruitment and retention.

Most working-age men and women spend a significant portion of their day at a worksite. The workplace may be an ideal setting for Extension faculty to partner with business leaders in promoting healthy behaviors and preventing chronic disease. With this in mind, Extension faculty delivered and assessed a worksite wellness program at N.E.W. Corporation in Klamath Falls, Oregon.

Approach & Methods

In response to the epidemic of inactivity and poor food choices, 4 years ago, Oregon State University (O.S.U.) Extension faculty in Klamath County partnered with local health organizations to form the Healthy Active Klamath Coalition. For several years the coalition coordinated a free community-wide wellness challenge patterned after Active for Life from American Cancer Society

<www.cancer.org/docroot/PED/content/PED_1_5X_Active_For_Life.asp>. Teams of five-10 people signed up to track their physical activity and fruit/vegetable intake for 6 weeks using a point system. Participants received incentives such as swim passes and pedometers; they were also eligible to attend weekly activities that included exercise classes, bicycle rides, educational programs, etc. Each week, team points were tallied and posted on a Web site and in a local newspaper; top teams received awards. The 6-week event used a variety of techniques to promote behavior change, including team competition and support, peer support, personal goal setting, and tracking of progress.

To determine the efficacy of this event, Extension faculty recruited one large business for assessment. Employees at N.E.W. Corporation were invited to participate in the wellness challenge and complete a pre- and post-survey evaluation. N.E.W. has approximately 600 employees and is a privately held independent third-party administrator of extended service plans, buyer protection services, and product support for retailers. Employee duties include answering questions over the phone or computer.

Employees were recruited with the help of N.E.W. Human Resource Director via email and posters. Data was collected at three points: before the wellness challenge (Spring, Week 0), after the challenge (Week 7), and 4 months after the challenge (Fall, Week 20). Data collection included body measurements, self reported health habits, and demographic information as follows:

Body Measurements

- Height
- Weight
- Body Mass Index (BMI)
- Waist circumference

Self Reported

- Demographics including employment information
- Amount of physical activity and readiness to change
- Frequency of fruit and vegetable intake and readiness to change
- Rating of support for making lifestyle changes from employer and co-workers
- Confidence level for controlling body weight and stress at work
- Awareness of risk factors for chronic diseases
- Energy level at work

The study was approved by IRB at Oregon State University. Data collected from the surveys were analyzed using the Statistical Package for Social Sciences. Descriptive statistics (means, standard deviations, and percentages) were calculated to describe sample characteristics and determine correlations.

Results

Seventy-seven employees (13% of workforce) from N.E.W. joined the wellness challenge and completed the initial pre-assessment. Characteristic of this sample were:

- Generally female (79% female)
- White (80% white, with next persons of color being Hispanic at 9%)
- Younger age group (59% were 18-35 years old)
- Short tenure with company (mean of 11.25 months)
- Generally well educated (most had above high school, with 58% having "some college or technical school")
- Overweight or obese (89% having BMI of 25 or higher)
- High rate of smokers (26% reported smoking everyday or some days)

Of the 77 employees who initially joined the challenge, a minimum of 39 completed both the pre- and the post-test survey. Only 12 participants completed all three surveys (Week 0, 7, and 20). This final measure was not analyzed due to inadequate sample size.

Of the parameters measured, participants significantly improved in six main areas: body weight, waist circumference, BMI, exercise amount, readiness to increase exercise, and readiness to eat more fruits and vegetables as noted in Table 1.

Table 1.
Change in Measurements Before and After the Wellness Challenge

	N	Pre-Challenge 0 weeks) Mean	Post-Challenge (7 weeks) Mean	Significance
Weight (pounds)	41	205.67	203.49	.011
Waist (inches)	39	42.199	41.397	.002
BMI	41	33.317	33.000	.036
Exercise (minutes per week)	39	168.26	279.38	.014
Exercise Stage 1-6 ^a	41	3.10	4.46	.000
Fruit & Vegetable Stage 1-6 ^b	42	3.98	4.52	.000

^aStages ranged from 1: "I don't exercise regularly now and don't plan to in the future" to 6: "I've been doing moderate physical activities 5 or more times a week, or vigorous exercise at least 3 times a week, for 7 months or longer."

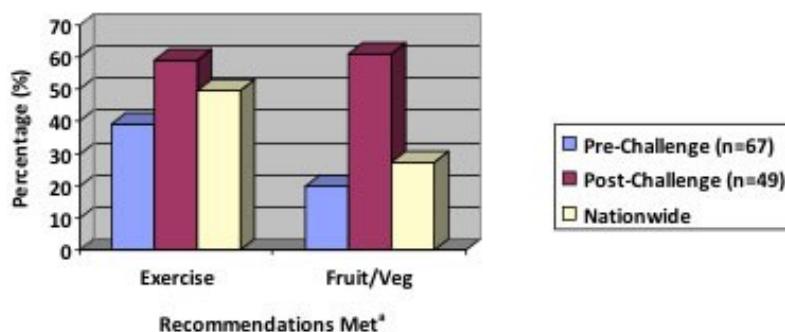
^bStages range from 1: "I don't eat fruits and vegetables regularly now, and don't plan to start in the near future" to 6: "I've been eating 5 or more fruits and vegetables every day, for 7 months."

Discussion

The goal of the project was to conduct and assess a worksite wellness program in a specific business and to explore the role of Extension in worksite wellness. There can be many dimensions to a wellness program, ranging from ergonomics to stress reduction. The focus of the wellness challenge described here was primarily on two behaviors—increasing exercise and eating more fruits and vegetables. These behaviors were chosen because they are modifiable and linked to risk reduction for obesity and other chronic diseases. As demonstrated in Figure 1, participants did improve in both of these behaviors even above national trends over the 6-week event. Although the changes were significant, the intervention was short and the sample size relatively small (n=37). The author could not determine if these behaviors were sustained past Week 7 because only 12 participants had all three sets of data for weeks 0, 7, and 20. A number of participants were lost to follow up because they no longer worked at N.E.W. and could not be contacted.

Figure 1.

Percentage of Participants Who Met Recommendations for Exercise, Consumption of Fruits and Vegetables Before and After 6-Week Wellness Challenge Compared to National Statistics



*30 minutes or more of exercise five times per week; five or more servings of fruits and vegetables per day (Centers for Disease Control, 2007).

Another consideration is the lack of a control group for comparison. Participation was self-selected, which may have contributed to an increased likelihood of changed behaviors. Some experts suggest that engaging already motivated employees is valuable in itself because it maintains healthy employees at low risk for developing chronic diseases. Based on the pre-survey results and the high rates of obesity and overweight (89%) in this study group, it appears many of the participants were already or soon to be in a high-risk category for chronic diseases despite the fact that they were a younger population.

Partnerships take time to develop between organizations, and this became problematic at times when working with N.E.W. Although human resources personnel provided support, Extension was not part of the organization's structure, which created barriers in areas such as communicating with employees. In one instance Extension faculty learned not all employees were aware they'd been granted release from work to attend nutrition and exercise classes.

Although it was not within the scope of the project, it would have been desirable to survey use of sick leave during the wellness challenge and to complete a full return on investment. This may have presented a more convincing argument for continued investment in the health of employees. At the end of the wellness challenge, Extension faculty offered observations on how to improve the policies and "social norms" of the workplace to support healthy choices. The company adopted a few suggestions, such as offering a healthy alternative in the cafeteria. Other suggestions were not adopted, such as starting a wellness committee or notifying employees of subsidized gym membership (63% of employees did not avail themselves of this benefit).

It was reaffirming to watch "champions" for good health emerge from within the organization. A manager who appeared in good health was found to have elevated blood pressure during the pre-survey and was referred to physician for further evaluation. As a result, she was invested in making the challenge a success. During the pre-survey assessment one overweight participant spoke negatively about the challenge and appeared unwilling to make lifestyle changes. By the end of the challenge, she had lost 30 pounds and had become an advocate for healthy behaviors. She encouraged her team in creative ways such as hosting "fruit

& veggie" potlucks and giving "athlete of the week" awards. She also suggested N.E.W. management reconsider its policy of rewarding employees with high calorie, low nutrient foods. Although not specifically targeted for change, Extension faculty observed improved morale and a general excitement in the facility about supporting each other. One participant commented, "For once I didn't feel alone in my efforts to make healthy choices!"

Recommendations & Conclusion

Based on the results of the study reported here, wellness programs conducted by Extension in partnership with workplaces can improve employees' body measurements, exercise level, and readiness to positively change health behaviors over the short term. Such wellness activities also have the potential to kindle changes in organizational policies, systems, and environments that may lead to sustained behavior change and reduced risk of chronic disease. Below are some recommendations for partnering on worksite wellness.

- Focus the health message on one or two main ideas, and use classes or other events that clearly support this message, whether it's a wellness challenge as described in this article or a walking program as described by Morgan (2006).
- Use a team approach. The team approach used in this wellness challenge was helpful in creating a social influence and support for behavior change. Team leader support was listed as one of the top three things that helped participants stay motivated. It would be beneficial to involve family members in a wellness event for the same reason.
- Identify champions. Although an external organization such as Extension can "light the match" for a wellness challenge, there must be internal champions at all levels of a business who can help "carry the torch." Extension should intentionally identify these individuals before, during, and after a program to help secure their influence in the organization.
- Conduct a healthy worksite assessment as a good "first step" for employers, such as one developed by Oregon Department of Human Services
[<http://www.oregon.gov/DHS/ph/worksites/toolkit/index.shtml>](http://www.oregon.gov/DHS/ph/worksites/toolkit/index.shtml).
- Establish wellness committees. Wellness committees are a valuable tool that can be used to pool ideas and resources in an organization; members should represent management, all levels of staff, and potentially educators such as Extension.
- In addition to providing education, assess and recommend changes in a company's policies, formal or informal, that undermine employee efforts to make healthy choices. Such policies might include offering high-calorie, low-nutrient foods as a reward for good work performance or planning lengthy meetings without opportunities for physical activity.
- Practice what you preach. Extension will increase its credibility as a partner in worksite wellness if it too is making efforts to support employee wellness, whether through policies, education, and/or wellness challenges within its organization.

Extension is uniquely equipped and geographically available to help local communities and businesses invest in good health. Such partnerships may reduce the burden of chronic disease for individuals and can potentially improve the productivity of our workforce. "Good health is an investment in economic growth," says Ross DeVol, director of the Milken Institute's Center for Health Economics and the lead author of the report, "An Unhealthy America: The Economic Burden of Chronic Disease."

Information on Healthy Active Klamath Coalition's wellness challenge can be found at
[<www.healthyactiveklamath.org>](http://www.healthyactiveklamath.org).

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