

**CONTROL ID:** 2196639

**TITLE:** Workplace Wellness Incentives for Weight Loss - A Randomized, Controlled Trial

**AUTHORS (FIRST NAME, LAST NAME):** Mitesh Patel<sup>1, 2</sup>, David A. Asch<sup>1, 2</sup>, Andrea B. Troxel<sup>1</sup>, Lisa Wesby<sup>1</sup>, Victoria Ulrich<sup>1</sup>, Jingsan Zhu<sup>1</sup>, Wenli Wang<sup>1</sup>, Kevin G. Volpp<sup>1, 2</sup>

**INSTITUTIONS (ALL):**

1. University of Pennsylvania, Philadelphia, PA, United States.
2. Philadelphia VA Medical Center, Philadelphia, PA, United States.

**CURRENT PRIMARY CATEGORY:** Organization of Care and Chronic Disease Management

**ABSTRACT BODY:**

**Background:** More than one-third of adults in the United States are obese. The Affordable Care Act significantly increased the proportion of health benefit premiums available for outcome-based wellness incentives. However, there is little evidence about the effectiveness of longer term wellness incentives to guide the design of health benefit incentive plans for weight loss. The objective of this study was to evaluate the effectiveness of a commonly used approach to employee benefit design (premium adjustment next year) with two alternatives that utilize concepts from behavioral economics.

**Methods:** 200 employees of a large health system in Philadelphia with a body mass index of 30 or greater were given the goal of losing 5% of their body weight within 12 months and randomized to control or one of 3 intervention arms: a "standard" arm in which the employee would get \$550 off next year's benefit premiums if goal was met, an "immediate gratification" arm in which the employee would receive \$550 in reductions in their benefit premiums starting as soon as their goal was met, or a daily lottery arm in which each employee had an 18% chance of winning \$10 and a 1% chance of winning \$100 each day at work that their weight was below a gradual decline to 5% weight loss by 6 months and that they maintained their weight goal in the subsequent 6 months. The intervention was designed to simulate a real-world workplace wellness incentive. Scales were placed within the workplace. Participants were allowed to use the scales at any time but only required to weigh in at 6 and 12 months. No other resources or feedback was provided other than informing participants of financial incentives. The primary outcome measure was mean weight loss by arm at 12 months. The secondary outcome measure was the proportion of employees that met the 5% weight loss target by 12 months and mean weight loss at 6 months.

**Results:** Employees in the study sample had a mean body mass index of 36.9 (standard deviation [SD]: 5.3), mean weight of 227.1 pounds (SD: 37.6), mean age of 44.9 (standard deviation: 9.8), and were 81.7% female. At 12 months the mean weight loss for the control arm was -1.53 lbs. (95% Confidence Interval [CI]: -5.34 - 2.27) and there were no significant differences compared to the standard incentive arm (Mean: -1.25, 95% CI: -4.89 - 2.39, P = 0.92), the immediate gratification incentive arm (Mean: -0.91, 95% CI: -5.30 - 3.48, P = 0.82), or the daily lottery incentive arm (Mean: -1.39, 95% CI: -5.12 - 2.34, P = 0.96). Mean weight loss at 6 months was similar among the arms. There were no significant differences in probability of achieving the 5% weight loss goal during the 12 month period for the control arm (20.0%, 95% CI: 11.1% - 33.3%), the standard incentive arm (22.5%, 95% CI: 12.9% - 36.2%, P=0.77), the immediate gratification incentive arm (12.5%, 95% CI: 5.7% - 25.2%, P=0.32), or the daily lottery incentive arm (20%, 95% CI: 11.1% - 33.3%, P=1.00)

**Conclusions:** Workplace wellness programs designed to simulate real-world incentives through discounts in health premiums were not effective for promoting weight loss over an extended one year period. A daily lottery incentive unbundled from health premiums was also not effective for promoting weight loss over a one year period. Wellness programs using financial incentives for weight loss need further evaluation and may need to be launched in combination with other engagement strategies.

(no table selected)

**TABLE FOOTER:** (No Tables)

(No Image Selected)