OBJECTIVE: To test whether participation in an incentive-based online physical activity program for employees was associated with a moderation in health care costs. METHODS: Health care claims trends from 2003 to 2005 were analyzed among a matched sample of participants and nonparticipants. Medical and pharmacy costs, hospital inpatient costs, and emergency room costs were examined. RESULTS: The average annual health care costs for participants increased by $291 per year compared with an increase of $360 for nonparticipants (P = 0.09). Higher levels of participation were associated with smaller increases in health care costs. Participants had a significantly smaller increase in inpatient hospital costs (+$20 vs +$119), heart disease costs ($-8 vs $46), and diabetic costs (+$1 vs +$16) compared with nonparticipants. CONCLUSIONS: Participation in an online employee physical activity intervention was associated with smaller increases in health care costs compared to nonparticipants.