

Research brief | Impact of financial incentives on behavior change program participation and risk reduction

BACKGROUND

Employers are increasingly using financial incentives to elicit worksite health promotion (WHP) program participation. ¹ Several studies suggest incentives can increase participation rates in health assessments (HAs)²⁻⁴ and behavior change programs. ⁵ Specifically tailored incentives may also contribute to 12-month smoking cessation⁶ or weight loss,⁷ but some research suggests offering extrinsic rewards may decrease intrinsic motivation and stifle long-term behavior change.⁸

With the use and dollar amount of financial incentives increasing, the cost-effectiveness of incentives is becoming an important concern for employers.⁹ The incentive costs in recent clinical trials have been high and authors noted that more research is needed to ultimately answer the cost-effectiveness question.^{6, 10} To further address the question of cost effectiveness, StayWell[®] Health Management (StayWell) conducted a study that examined how incentives are associated with coaching program participation rates and behavior change outcomes.

STUDY METHODS

The study included 24 clients of StayWell, representing 50,605 NextSteps[®] coaching program registrants. Information was collected on the value of incentives offered by each client for participation in NextSteps programs.

The outcome variables were NextSteps registration rate, NextSteps completion rate, and percent risk change. Registration and completion rates were obtained from standard StayWell reports for each client.

Why it Matters | *With the use and dollar amount of financial incentives increasing, the cost-effectiveness of incentives is becoming an important concern for employers. StayWell conducted a study that examined how incentives are associated with coaching program participation rates and behavior change outcomes.*

Percent risk change was measured using the StayWell

health assessment (HA). This risk change measure included nine health risk areas, and was defined as the difference in the average number of risks between the baseline and follow-up HA, expressed as a percent of the average number of risks at baseline. Risk change was calculated for individuals who participated in a behavior change program and had a baseline and follow-up HA.

Table 1 compares registration rates, completion rates, and percent risk change for clients who offered incentives versus clients who did not offer incentives. To assess general patterns in the data, scatterplot diagrams were used to compare the incentive value for each client to their respective percent risk change (Figure 1). The estimated cost of incentives was divided by the estimated additional risks reduced for clients who offered incentives in order to evaluate the cost-effectiveness of offering incentives (Table 2).

Table 1. Average (mean) participation and percent risk change by incentive status

	Incentives (n = 15)	No Incentives (n = 9)
Registration Rate	29.7%	26.0%
Telephone Completion Rate	82.9%	76.4%
Risk Change (% improvement)*	7.0%	8.5%

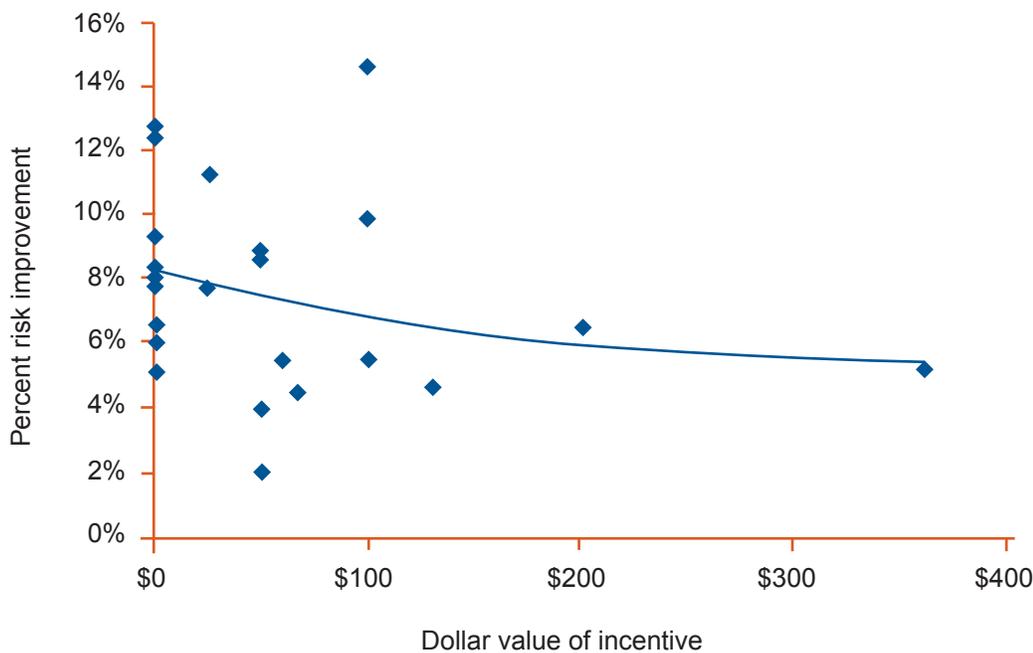
* Positive numbers represent health risk improvement. Higher numbers indicate more health risk improvement, i.e. better outcomes.

RESULTS

Among clients that offered incentives, the value ranged from \$25 to \$360, with an average value of \$98. Companies offering incentives had an average NextSteps registration rate of 29.7% and completion rate of 82.9%, compared to a slightly lower average of 26.0% registration and 76.4% completion rates for companies that did not offer incentives. Companies that offered incentives had a risk improvement of 7.0%, which was lower than the 8.5% risk improvement for

companies that did not offer incentives. However, the percent risk change varied widely across clients, ranging from 2% to nearly 15% for individuals who participated in a NextSteps program. The general pattern suggests that clients who offer higher-value incentives tend to have lower rates of risk reduction among NextSteps participants (Figure 1).

Figure 1. Company-level percentage risk improvement by incentive value



The average participation and percent risk change rates from Table 1 were used to create Table 2, which estimates the cost-effectiveness of incentives for NextSteps participation among 1,000 eligible individuals. Based on this analysis, the cost per additional health risk reduced was \$24,108.

Table 2. Projected participation, percent risk change, and cost for 1,000 individuals eligible for behavior change programs

	Incentives (avg cost/participant = \$98)	No Incentives (avg cost/participant = \$0)
Estimated registrations	297	260
Estimated completions	246	199
Estimated incentive cost	246 x \$98 = \$24,108	\$0
Estimated risks reduced*	65 (1 additional risk reduced)	64
Estimated incentive cost per additional risk reduced	\$24,108 / 1 = \$24,108	\$0

* Assumes 3.78 risks per person at baseline, which was the average number of risks for NextSteps participants in this study.

CONCLUSION

This study found that offering financial incentives for NextSteps completion was associated with somewhat higher program participation and completion rates. However, because risk improvement was less among those who were offered incentives to complete programs, the results suggest that incentives may not be effective or cost-effective in improving intervention outcomes. StayWell will continue to evaluate how incentives influence participation, engagement, and behavior change to provide our clients with the best available information to support the effective and cost-effective use of incentives.

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