Getting the Most Out of Financial Incentives for Weight Loss

The use of incentive-based programs for weight loss is growing. This growth is likely to accelerate in the coming years due to a provision in the Patient Protection and Affordable Care Act, which allows employers to use a greater proportion of insurance premiums for this purpose (1). The effectiveness of the programs, at least in the short term, is consistent with insights from psychology and behavioral economics: Proximal and tangible rewards (such as monthly monetary payments) are more motivating than distant and intangible rewards (such as the downstream health benefits of weight loss).

Because of the high costs of health care and lost productivity associated with obesity (2, 3), employers are seeking solutions. With the high cost (both money and time) of traditional treatments, financial incentive programs could be seen as money well-spent.

Although randomized, controlled trials are difficult to execute and expensive to run, the trial reported by Kullgren and colleagues (4) in this issue shows that there is much to learn about the relative effectiveness of different incentive schemes. Their study compared 2 such schemes with a control condition (where no incentives were offered). In the individual-incentive scheme, participants would receive $100 at the end of each month (for 5 months) if they met a prescribed weight-loss target for that month. In the group-incentive scheme, participants were randomly assigned to nominal groups. Each group of 5 members had a pooled incentive of $500 per month. Only those group members who met their weight target in a given month would receive money, and they would share the $500 evenly among them. For example, if only 2 people in a group of 5 met their weight-loss target in October, those 2 people would each get $250 for that month and the other group members would get nothing. Another $500 would then be available to share among whichever group members succeeded in November. As with the individual condition, the incentives were offered for 5 consecutive months.

Of importance, the 5 group members had no way of learning each other’s identities, so they could neither help nor hinder each other’s efforts.

At the 6-month weigh-in, group participants had lost much more weight (4.8 kg) than individual and control participants (1.7 and 0.5 kg, respectively). They also received much larger payouts ($514.70) than individual participants ($128.60) over the 5-month incentive period. Some of the weight-loss difference was even maintained after an additional 12 weeks without incentives. The challenge of long-term weight-loss maintenance remains elusive, but this study suggests some opportunities.

First, cognitive restraint was identified as a possible mediator of the larger weight loss in the group condition. This measured link, from incentives to more frequent self-regulation, offers a glimpse of the potential power of these kinds of incentive schemes. We can see that the reward recipients are not just “cashing in.” Rather, they are doing hard work (albeit mental work) for their money.

Sadly, the authors did not find evidence that increased cognitive restraint continued beyond the incentive period (although they note that the study was not powered to find such differences). Still, one wonders whether the heightened cognitive restraint simply stopped when the financial incentive ended. Perhaps it lingered, at least in some latent capacity. Could cognitive restraint now be more easily re-ignited, perhaps with subsequent, smaller, intermittent incentives? Did incentivized participants learn any new self-regulation “tricks” (such as not keeping tempting food in plain sight)? These kinds of questions can only be answered with longer-term trials and improved measurement of cognitive restraint and other self-regulatory processes.

Another opportunity lies in assessing the cost-effectiveness of respective incentive schemes. Interestingly, although less effective in terms of average weight loss, the individual incentive was actually more cost-effective in terms of dollars spent per kilogram lost. A crude calculation suggests a mean rate of just $75.65 per kilogram with individual incentives ($128.60 average payout, divided by 1.7-kg average weight loss), but $107.23 per kilogram with the group incentives ($514.70 average payout, divided by 4.8-kg average weight loss). Had participants in the individual-incentive group been offered much larger monthly rewards, would they have lost more weight and still cost the study (or the employer) less money? Maybe not, because the first few kilograms of weight loss are probably the easiest (and in our metric, the cheapest), so the rate may increase with more kilograms lost. However, we do not know how quickly that rate would increase. It could remain fairly constant for quite a while.

What is certainly true is that the group incentive was more efficient in terms of program capitalization. In the current study, both incentive conditions required the guaranteed availability of $21 000 ($100 dollars per month, per participant) in case every participant succeeded every month. Even if tripling the individual incentive (from $100 to $300) made it both more effective and cost-effective than the original group incentive, it would require the program to put 3 times as much money at risk (to guarantee payout if everyone succeeded). That could be more challenging for small programs (and small employers) than for larger programs (and larger employers).

Companies and communities are not waiting for effectiveness or cost-effectiveness results to try popular incentive programs, such as “The Biggest Loser” (where the winner takes all). However, these programs need to be carefully studied. Other kinds of competitive and noncompetitive group structures should also be tested, including those where group members can interact with each other (not a
feature of the group design used by Kullgren and colleagues). Group support has long been a feature of weight-loss programs, and it would be good to know how such support processes operate in the context of incentives.

Kullgren and colleagues (4) have set the standard for the care and rigor with which such randomized, controlled trials of incentives should be conducted. Larger and longer trials would allow for more accurate measurement of incentive effectiveness and cost-effectiveness. Such trials could also measure possible positive side effects of employee incentive programs (such as community building) and negative side effects (such as weight stigmatization).

Finally, perhaps the most important way for employers to get the most out of their financial incentive schemes is to make appropriate efforts to manage access to calorie-dense foods and beverages at the workplace. This can be done through smart design and merchandizing practices in kitchens, cafeterias, and vending machines and at catered events (5, 6). The definition of “appropriate efforts to manage access” will vary by population, culture, and setting, but paying employees to mentally fight temptation will be much more effective and cost-effective in environments where the temptations are reduced.

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