INTRODUCTION
Health and wellness programs provide an opportunity for individuals along the entire spectrum of physical and emotional health to learn personalized ways to live long, productive lives. The burden of chronic disease in the United States is huge, and the scenario continues to worsen. Currently, more than 133 million people, or almost half of all Americans, are living with one or more chronic conditions. These numbers translate to higher health care costs for both employers and employees – health care premiums for employer-sponsored family coverage have increased by 87% since 2000.\(^1\) Even more disconcerting, projections based on current trends estimate a 42% increase in cases of the seven major chronic diseases by 2023.\(^2\)

Although current trends in the health of Americans cause increasing strain on the economy, a recent study by the Milken Institute found that modest improvements in preventing and treating chronic disease could, by 2023, reduce the economic impact of treatment costs and productivity losses by 27%.\(^3\) However, the trends are indicative of the fact that the general population is not making the necessary changes on its own. This being the information age, the internet has made information about health issues readily accessible. Additionally, greater awareness of the problem has caused the topic of health improvement to be a familiar spotlight in magazine and newspaper articles, books, talk shows, and news broadcasts. The availability of information and resources for improving health is, therefore, not always a sufficient solution. The use of incentives to drive participation in health and wellness programs has shown to help more people become active along the path toward better health and wellbeing.

Now that the need for programs to improve health is greater than ever, the purchasers of health and wellness programs want to know if they need to incentivize these programs, what incentives are effective, and what benefits are gained by using incentives. The purpose of this paper is to provide an overview of incentive strategies and to explore which of these approaches is most effective. By assimilating results from academic research on incentives, national survey data of employers and employees, and the experience of Healthways’ health and wellness programs, informed decisions can be made about utilizing incentives to maximize program impact.

COMMON TYPES OF INCENTIVES
A variety of incentive or disincentive strategies are employed in motivating individuals to participate in health and wellness programs. Incentives are used to reward individuals for taking certain actions or for achieving desired results. These incentives may be provided for enrolling in a program, for ongoing participation, for behavioral change, for making measurable improvements to their health, or for sustaining good health. Larger value incentives are often provided through a lottery or as prizes in team competitions. Common types of incentives include tiered health insurance offerings, health insurance premium reductions, health account contributions [health savings account or health reimbursement account], cash bonuses, paid time off (PTO), gift cards, and tangible gifts.
Alternatively, employees who do not participate may be penalized through disincentives. Disincentives, or negative incentives, penalize those who do not take an action or have a successful outcome. Disincentive penalties may include premium increases, co-pay increases, reduced benefits, salary reductions, or job sanctions.

A combination disincentive/incentive approach involves increasing the cost of health insurance coverage across the board, then offering improved options or reduced premiums for program involvement. This strategy, if communicated properly, may avoid the stigma of a disincentive yet minimize the costs associated with incentivizing a program.

COMMON TYPES OF INCENTIVES

Incentives
- Health insurance premium reductions
- Tiered health insurance offerings
- Co-pay reductions
- Health account contributions (HSA, FSA, or HRA)
- Cash Bonuses
- Paid time off (PTO)
- Gift cards
- Tangible gifts

Disincentives
- Health insurance premium increases
- Co-pay increases
- Reduced benefits
- Salary reductions
- Job sanctions

WHAT IS THE IMPACT OF INCENTIVES ON HEALTH AND WELLNESS PROGRAMS?

Enrollment and Retention
Incentivizing initial and ongoing participation in health and wellness programs effectively expands the reach of a program. Those contemplating change often over estimate the difficulty of change and underestimate the benefit of the change. Incentives can create a “tipping point” by improving the perceived cost-benefit ratio, encouraging those who are ready for change to take advantage of available programs and resources that can help them take action. Successful outcomes can only be achieved when individuals are engaged in a program, so motivating enrollment and retention is critical. The importance of expanding program reach is evident from analyses of smoking cessation programs, which show that incentives attract more people to make a quit attempt than would do so without the offer of a reward. This increased participation ultimately leads to a greater absolute number of quitters and thus a more successful outcome.3

Research is beginning to show that the use of appropriate incentives is effective at increasing rates of enrollment and retention. Although there are few studies that directly compare various types of incentives using rigorous methodology, the available studies suggest that enrollment is particularly amenable to improvement through incentives. Research measuring program participation with and without incentives consistently finds that participation improves when incentives are offered.4,7 The impact of an enrollment incentive is heightened through strong communication and organizational commitment to the program;7 without these features a larger incentive is necessary to encourage participation,6 though larger incentives are often an indicator of greater corporate support. Correspondingly, studies using focus groups and surveys indicate that incentives are a deciding factor leading to participation in health and wellness programs.8,9

The evidence clearly indicates that incentives will improve program enrollment; however, it is important to note that large increases in enrollment may result in the same or even a lower percentage rate of successful outcomes, being the number of desired outcomes achieved as a percentage of the total enrolled population. This phenomenon is expected because higher participation causes the number of successful outcomes to be divided across a larger group in a calculation of program effect. However, overall program impact can still be substantially better because a larger absolute number of individuals are likely to achieve the desired outcome.1 See Figure 1 for a hypothetical example of this phenomenon.

FIGURE 1: HYPOTHETICAL PARTICIPATION AND OUTCOMES COMPARISON

<table>
<thead>
<tr>
<th></th>
<th>Non-Incentivized Program</th>
<th>Incentivized Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eligible population</td>
<td>N = 1000</td>
<td>N = 1000</td>
</tr>
<tr>
<td>Enrolled Participants</td>
<td>N = 400, Enrollment Rate = 40%*</td>
<td>N = 800, Enrollment Rate = 80%*</td>
</tr>
<tr>
<td>Successful Outcomes</td>
<td>N = 300, Outcome Rate = 75%**</td>
<td>N = 500, Outcome Rate = 63%**</td>
</tr>
<tr>
<td>Non-participants</td>
<td>N = 600</td>
<td>N = 200</td>
</tr>
<tr>
<td>30% of eligible pop.</td>
<td>Benefits from program</td>
<td>50% of eligible pop. Benefits</td>
</tr>
</tbody>
</table>

*Enrollment rate = #enrolled / eligible
**Outcome rate = #successful outcomes / #enrolled
**Behavior Change**

When incentivizing behavior change, it is important that the value of the incentive aligns with the perceived difficulty of the action.\textsuperscript{10} Because behavior change is perceived as difficult, an incentive must be large enough to create the tipping point between contemplation and action. Success is, therefore, more easily achieved when incentives target simple behaviors, which are short-term, time-limited, discrete actions. For example, incentives can be highly effective at improving immunization rates.\textsuperscript{11} Complex behaviors that are ingrained in an individual’s lifestyle, such as smoking, eating, and exercise, have proven less amenable to change as a result of incentives. Additionally, convenience is a barrier to action; providing easier availability to healthy activities, such as worksite fitness centers and/or classes, promotes greater interest.\textsuperscript{12}

For complex behaviors, when discrete well-defined goals are outlined, economic incentives can drive change.\textsuperscript{13} In one study, participation in an online fitness program and regular physical activity were dramatically improved by providing a cash rebate for regular physical activity over a 12-week period.\textsuperscript{9} However, relapse to prior behavioral patterns may occur after the conclusion of an intervention.\textsuperscript{11, 13, 14} This evidence supports the continuous use of health and wellness programs over time that are integrated with incentives that reward behavior change through ongoing or periodic rewards to maintain motivation and prevent relapse.

**Outcomes**

Research on incentivizing outcomes is still evolving. There is some evidence to suggest that incentives for health or wellness outcomes, such as smoking cessation, weight loss or reduced blood pressure, are effective in driving short-term improvements,\textsuperscript{15-17} and can be effective in driving long-term outcomes if incentives are provided for progress toward a goal and maintenance of an outcome. For example, a recent study of incentives for smoking cessation found that when smokers were provided periodic monetary rewards ($100 for program completion, $250 for cessation within 6 months, and $400 if abstinence was maintained for an additional 6 months), the rate of smoking cessation was significantly higher than the rate for a non-incentivized comparison group over the entire 18 months of follow-up. As additional support for incentivizing outcomes, a survey of patients with metabolic syndrome found that 41% of participants believed that an incentive tied to weight loss would motivate them to lose weight.\textsuperscript{8}

The level of outcome that is targeted by an incentive should be considered carefully. If the bar is set to high, such as providing an incentive for an amount of weight loss that is broadly considered unreasonable, it will deter people from making a weight loss attempt. However, rewarding only small improvements will reduce the potential for a greater level success. For the weight loss example, rewarding an inconsequential decrease in weight will limit the extent of weight loss that the population might achieve if the bar were set higher.

While such a staged and creative structure described above can drive greater success, program design must be careful to avoid inadvertent discrimination.\textsuperscript{18} Information on relevant legal regulations is covered in a following section. As a whole, available research suggests that health and wellness outcomes in a population can be maximized through incentive programs that are of the appropriate value and that are well structured and communicated.

**FACTORS TO CONSIDER IN BUILDING AN INCENTIVE PROGRAM**

**The Carrot or the Stick**

While it is unclear whether incentives or disincentives are more effective, disincentives have the advantage of keeping costs down. However, a nationwide survey of 500 employers found that nearly three-quarters of these employers use incentives to promote better health and productivity behaviors, but fewer than 2 in 10 currently use disincentives.\textsuperscript{19} Reluctance to penalize employees stems from legitimate concern about negatively impacting job satisfaction and employee retention. Employers often favor the idea of increasing the cost of healthcare coverage across the board, then offering cost reductions or improved options for various levels of participation and/or outcomes. The increased costs to non-participants serve to cover or mitigate the costs of incentivizing program participants, thus serving as a “budget-neutral model.” If communicated effectively, such an incentive program is perceived as a welcome relief by employees, who are generally familiar with increased healthcare costs from year to year.\textsuperscript{20}

**Types of Incentives**

There is a lack of definitive empirical evidence to indicate which types of incentives are the most effective. Very few studies have compared the success of multiple incentive strategies in diverse populations, but a few key insights arise from the available research.

First and foremost, effective incentive strategies should be geared to the population they are targeting. Members of lower socioeconomic groups can be motivated by incentives that are less valuable than those required to effectively incent individuals in higher-income brackets.\textsuperscript{14} Focus groups may provide a useful means of gauging the type and value of incentive that will encourage participation without overshooting, which can unnecessarily increase costs and lead to cheating. Incentives that are perceived as being very valuable, even when offered through a lottery, encourage falsification. For example, smoking cessation programs with large incentives are likely to have a number of non-smokers who claim to smoke in order to be eligible for a reward.\textsuperscript{3}

Cash-based incentives are considered to be both desirable and effective. Interestingly, monetary rewards are regarded as equally effective whether they are provided as cash, or when they are linked to the benefits package. In support of this theory, a large consumer attitudes survey found that, if offered a $100 incentive, 51% of employees would prefer this incentive as a reduction in health insurance costs, 44% would opt for cash, and only 5% would choose a gift or other form of incentive.\textsuperscript{10}
Incentives for Health and Wellness Programs: Strategies, Evidence and Best Practice

Group or team incentives for outcomes have the potential to be more effective than individual incentives due to the added impact of peer pressure and support. However, this strategy could be more expensive in terms of costs to organize and manage and have a greater risk of generating perceived or actual discrimination. The teams in such programs are generally small groups within an office or large groups within or between offices. The use of small groups is generally discouraged since multiple individuals should not be penalized for the actions of a single person, which can foster feelings of prejudice. If team incentives are desired, a combination approach may be preferable in which smaller incentives are provided for individual participation and outcomes and greater value incentives are used to reward favorable outcomes among large teams.

Timing of Incentives
Promised incentives may be less effective than those provided at the time of action, or shortly thereafter. Immediacy fosters effectiveness by providing a strong link with the desired action. The reward then acts as positive reinforcement for behavior change. It has also been shown that periodic rewards are more effective than one-time rewards because they support ongoing participation and maintenance of lifestyle changes.

Communication Strategies and Marketing
The impact of an incentive is seeded in how the incentive and the program are perceived by the population, which is dependant on how committed a program sponsor is to making the program a success. Employer commitment is demonstrated through both overt leadership support and employee involvement in the planning and promotion of the program. A common way of involving employees is designating “wellness champions,” influential members of the workplace who motivate others to become involved in the wellness program. Strong communication is essential since incentives are most effective when they generate excitement and conversation in the office. A recent study of incentives for HRA participation among 124 employers found that program communications and employer commitment level were strong predictors of HRA completion. Employers who advertised the program from one to three times required a $120 incentive to achieve 50% participation, while employers who advertised ten or more times using multiple mediums received enrollment calls during off-peak hours (i.e. during the work day), presumably because they were anticipating the call with the hope of earning the incentive.

A popular and convenient option for marketing health and wellness programs and the associated incentives is combining the advertising with open enrollment and related benefits communications. Open enrollment initiates a discussion of healthcare options and therefore may generate higher awareness, receptiveness, and participation. However, ongoing communication after an initial kick-off event is important for continued engagement.

Legal regulations
Ethical concerns about incentivizing wellness programs have arisen due to controversy over employer discrimination. For example, Scotts Miracle-Gro fired an employee who tested positive for nicotine and was subsequently faced with a lawsuit. To prevent discrimination, legal guidelines have been established through the Health Insurance Portability and Accountability Act (HIPAA) and the Americans with Disabilities Act (ADA) that must be considered when implementing an incentive program.

HIPAA provisions set criteria for rewards provided to group health plan members who achieve a health standard. These rewards are permitted only if the value is limited to 20% of the cost of the member’s coverage, if the program is designed to promote health or prevent disease, if the member has the chance to qualify for the reward at least annually, if alternative standards are set for those members with medical conditions that impede their ability to meet the standard, and if these alternative standards are disclosed in program materials. However, HIPAA regulations do permit rewards that are provided solely on the basis of participation, pursuing health-related goals or program completion. “Benign discrimination” is permitted; this is discrimination in favor of those with a health condition. For example, those with a chronic condition may be rewarded for participating in a wellness or disease management program. Health plans may also require the completion of a health-risk appraisal (HRA) for benefits eligibility, provided that the information acquired is not used to restrict eligibility or benefits or determine premiums.

The ADA requires that health insurance eligibility, benefits and costs can only be based on a health factor if there is actuarial evidence to show that the factor increases the risk of incurring medical expenses. Additionally, the ADA regulations allow the use of incentives for wellness programs if participation is voluntary- and if information obtained is not used to discriminate against an employee, is kept separate from personnel files, and is accessible only to wellness-program personnel.

EXPERIENCE FROM THE FIELD: THE IMPACT OF HEALTHWAYS INCENTIVE STRATEGIES

Enrollment
In an effort to optimize enrollment rates, the Healthways Process Excellence group conducted a study of Lifestyle Management programs to determine the variables that influence whether an eligible individual enrolls. This analysis of data from 98,945 individuals found that multiple factors affect the likelihood of enrollment, including demographics, risk level, call timeframe, number of call attempts, and incentives. Of these factors, the offer of an incentive for participation was the most significant predictor of increased enrollment. When the data was broken down by the timeframe in which the call was made, the results indicated that incentives were effective even when members received enrollment calls during off-peak hours (i.e. during the work day), presumably because they were anticipating the call with the hope of earning the incentive.

As part of the Process Excellence project, an additional analysis was performed to determine how the value of an incentive drives increased enrollment in Lifestyle Management. Enrollment data from all companies offering a 6-month (LM6) or 12-month (LM12) coaching program during the first
half of 2008 was used to develop a predictive model for the likelihood of enrollment. The majority of these companies required the completion of multiple coaching sessions or program completion to earn the incentive. As shown in Figure 2, the probability of enrollment improves as the “cash value” of an incentive increases. The cash value is the dollar amount of a cash award, avoided surcharge, premium reduction, HRA contribution or gift card. The study concluded that incentives with a value of $100 or more significantly increase enrollment rates and that the likelihood of enrollment increases progressively with increasing incentive value. The probability that an eligible member will enroll in LM6 or LM12 is greater than 80% when offered an incentive valued at $1,000. Although the absolute dollar value needed to effectively incent a specific group will vary based on socioeconomics, communications and corporate backing, these results emphasize the importance of incentivizing wellness programs and show that, across the board, a minimum incentive of $100 for coaching participation is needed to increase program enrollment.

**Participation and Retention**

Experience from Healthways Health Support programs indicates that low value incentives for enrollment and initial health assessment are not effective at maximizing the overall participation rate; however, ongoing participation and retention rates are generally high among these groups since this strategy selects for highly-motivated participants. Conversely, programs with more valuable incentives for enrollment have high levels of participation, but these programs often experience significant attrition later in the program. An additional incentive offered for continued participation or program completion can prevent this drop-off in participation and will thus maximize the ultimate number of employees who complete the program. The study described above (Figure 2) found that, in the case of Lifestyle Management, offering an incentive for participation or completion can also drive initial enrollment rates. Taken together, this evidence supports rewarding participation in or completion of a program as the most effective incentive strategy.

**FIGURE 2: THE PROBABILITY OF ENROLLMENT IMPROVES WITH HIGHER VALUE INCENTIVES.** The predicted probability of enrollment is shown for individuals eligible for Lifestyle Management 6-month (LM6) and 12-month (LM12) coaching programs.

Outcomes from SilverSneakers incentive events demonstrate that the level of participation set as the goal for earning the reward must be attainable, but that setting the bar too low can limit success. For example, a SilverSneakers promotion that rewarded new enrollees with a T-shirt for 10, 12 or 15 fitness center visits over 2 months found that rewarding 15-visits was optimal since more members achieved this higher goal without sacrificing the percentage of members making 10 or 12 visits (Figure 3). The ultimate value of such promotions is to help new enrollees establish a habit of visiting the fitness center and a sense of community with other members that will carry on after an incentivized visit-driver-event concludes. Although T-shirts and other gifts have proven effective in the context of the SilverSneakers program, tangible rewards are usually insufficient for incentivizing most program types and demographic groups. The successes experienced in SilverSneakers visit drivers can be attributed as much to the marketing campaigns linked to the event as to the gift itself. Therefore, when using small gifts as incentives, it is important that they be desirable to the targeted group and that they reward a time-limited and defined action that is combined with a promotional campaign.

**SilverSneakers**, a fitness program for seniors, uses alternative incentive strategies to abide by Centers of Medicare and Medicaid Services (CMS) guidelines. Incentives for this program encourage ongoing participation through periodic events that promote fitness center visits. During these events, SilverSneakers participants who make a designated number of fitness center visits within a certain timeframe, usually 1 or 2 months, earn a reward. The value of these rewards is limited by CMS and is generally a T-shirt or fitness-related gift, such as a water bottle. Results from focus groups indicate that a T-shirt with a SilverSneakers logo is particularly desirable to members, potentially because it demonstrates belonging to the SilverSneakers community that is a defining feature of this successful program.

**FIGURE 3: MEMBER FITNESS CENTER VISITS DURING A SILVERSNEAKERS PROMOTIONAL EVENT.** The percentage of members who visited the fitness center 10, 12 and 15 times in 2 months is shown based on whether a 10-visit or 15-visit reward was offered.
Outcomes
To communicate commitment to fostering a culture of health, most sponsors of myhealthIQ, a comprehensive wellness assessment program, provide benefits-linked incentives that reward participation, health improvements, and the maintenance of good health. Incorporating incentives into the program is highly recommended with support from a recent study that showed incentivized programs to have better outcomes than non-incentivized programs. This study of 1,550 myhealthIQ participants found that, over a single year, the number of high risk individuals dropped by 16% in programs with incentives compared to a drop of 8% in programs without incentives. As a whole, the shift of individuals out of the high-risk group and into lower-risk groups was more dramatic among incentivized programs (Figure 4).

FIGURE 4: SHIFT IN RISK FOR MYHEALTHIQ PARTICIPANTS.
The average percent change in size of each risk-factor group after one program year is shown for programs with and without incentives.

CONCLUSIONS
Although there is no single incentive strategy that will work for all employee populations and socio-economic groups, there are a few key insights that can guide the development of successful incentive programs. Generally accepted incentive design guidelines include keeping the strategy simple, communicating it effectively and repeatedly, administering it efficiently, and maintaining confidentiality. Leadership support for the program is also fundamental to success. Other theories have emerged that can provide more specific guidance for designing an effective program.

First, both incentives and disincentives have the potential to drive participation, behavior change and outcomes. A combination of the two approaches, if communicated properly, may serve to circumvent both the additional cost of providing incentives and the negative perceptions of a disincentive. Also, because most individuals revert to former behaviors once short-term incentives end, sustained programs, such as monthly premium reductions, may be of greatest benefit. Incentives should be provided for enrollment and/or participation to expand the reach of a program. Providing incentives for ongoing participation, especially when well marketed, can help prevent attrition that often occurs when only an enrollment incentive is offered. Either type of incentive is most effective if customized for the targeted population. Generally speaking, cash-based incentives are considered to be the most effective incentive type, whether or not they are tied to the benefits plan. It is important to choose an appropriate value for the incentive such that the program is successful, but costs are not overinflated. If incentives must be limited to small gifts, the impact can be enhanced through periodic events that generate excitement.

Two critical elements of an effective incentive program are timing and communication. In the promotion of health and wellness programs, advertising campaigns, leadership support and employee involvement in program planning and execution can greatly improve the impact of an incentive. A marketing campaign should be linked with the launch of the program, and periodic communications should be used to maintain awareness of the program rewards.

Ultimately, a well-designed health and wellness program will achieve positive results with those who choose to participate. Incentives are needed to help hesitant individuals overcome their perceived barriers to participation and to promote ongoing engagement so that the programs have the opportunity to touch as many lives as possible.

Incentives help hesitant individuals overcome perceived barriers to involvement and promote ongoing participation

Ultimately, a well-designed program will generate outcomes if the population is engaged

Key Points:

- Incentives are effective in expanding the reach of health and wellness programs
- Ongoing incentive programs can prevent attrition
- Incentives can motivate behavior change if provided on an ongoing or periodic basis
- Organizational commitment and the communication and timing of an incentive are critical to program success
- Cash-based incentives are believed to be most effective, even when tied to the benefits plan
- The value of the incentive should reflect the perceived difficulty of the action
- Program outcomes can be improved by incentives that are of the appropriate value and that are well structured and communicated.
ACKNOWLEDGEMENTS

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ABOUT HEALTHWAYS

For three decades, Healthways has been dedicated to improving the human condition. Each year, we learn more and do more for the millions of individuals who count on us to make a difference in their health and well-being. Healthways solutions deliver clear value. We are enhancing well-being, improving business performance and reducing healthcare costs. We have a long history of adapting to the customers we serve and honing our solutions for improved impact. Our approach is straightforward. Our solutions are complete, flexible, precise and personal.

ABOUT THE CENTER FOR HEALTH RESEARCH

The Center for Health Research performs advanced analytics with data collected from millions of participants over twenty-five years of Healthways programming. Currently, Healthways houses six times the volume of data contained in the Library of Congress. That depth and breadth of information allows the team to conduct a vast range of research, and it is used to advance their thinking in all levels of healthcare. For access to our Virtual Research Library, and the reports published by the team at the Healthways Center for Health Research, go to www.healthways.com/research.