

Protocol 823005: Financial incentives for maintenance of weight loss II

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Financial incentives for maintenance of weight loss II

Study Instruments

The proposed study will evaluate the effectiveness of financial incentives in improving maintenance of weight loss. We propose a 2-phase, 2-arm randomized controlled trial (RCT) in which 259 participants who lose at least 5 kilograms (11 pounds) in a weight loss program will be randomized to receive one of the following: 1) daily weigh-ins and weekly feedback (control arm) or 2) daily weigh-ins, weekly feedback, and a weekly escalating lottery-based financial incentive (Phase I, months 1-6). Those assigned to the escalating lottery condition will be eligible to win lotteries worth an expected value of \$3.98 in week 1 that will increase by \$0.43 per week for each week that they achieve the goal of weighing 6/7 days. Participants in all arms will be observed without intervention in Phase II.

Method for Assigning Subjects to Groups

Potential participants will be identified by reviewing Weight Watchers online member records using our eligibility criteria of initial BMI upon entry into the program, pounds lost in the last 4-6 months, and member opted in for communications from Weight Watchers about research studies. Weight Watchers will facilitate communication to these members using existing communication channels (email). Potentially eligible individuals will be invited to visit the Way to Health portal, an NIH-funded web-based infrastructure based at the University of Pennsylvania that is used to run behavioral economic intervention studies. Participants meeting the inclusion criteria will be randomized to one of the 2 study arms through the Way to Health platform. We will use permuted block randomization with variable block sizes. Participants are randomized in a 1:1 ratio to the intervention or control arm and randomization will be stratified by: (1) sex and (2) amount of weight lost within first 4-6 months of Weight Watchers membership (<30 lbs. versus 30+ lbs), as baseline weight loss may moderate treatment effects. Prior to a participant signing the informed consent, both the participant and the study coordinator will be blinded to what their potential group assignment of the participant would be if enrolled. Once consented and enrolled, neither the participants nor the study coordinator will be blinded to condition assignment due to the nature of the interventions. However, the consent form will not elucidate the design of the two intervention arms so that participants are not aware of the comparisons being made. For scientific purposes to establish valid measures of the effects of the various kinds of incentive plans, blinding participants to the overall study design is necessary, presents no increment of risk, and doesn't violate subject rights. Once a subject has been assigned to a study arm, she will receive an automatically-generated email notification about group assignment and next steps. At the close of the study, all participants will receive a debriefing letter disclosing all study arms and informing participants of the final results of the study (using de-identified data) that will be submitted for publication to an academic journal at the completion of the analysis.

Administration of Surveys and/or Process

Basic demographic data (BMI, gender, race, education, income, household size), physical activity data (IPAQ long), and eating behavior questions (TFEQ) and 2 questions measuring delayed gratification will be collected upon enrollment. We will also collect this data, minus the demographic questions, at 6 and 12 months.

Protocol

Abstract

Obesity is the second leading cause of preventable death in the United States, (1) associated with high blood pressure (BP), type 2 diabetes, coronary heart disease, and osteoarthritis. Identifying effective strategies for treating obesity is both a clinical challenge and a public health priority. Over 70% of the U.S. population is overweight or obese, and obesity in middle age translates into higher rates of hospitalization, Medicare expenditures, disability, and mortality risk in subsequent years. While a variety of approaches are successful in achieving initial weight loss, techniques for maintenance of initial weight loss have largely been unsuccessful.

Our previous work examining the impact of different degrees of cost sharing on employee participation, engagement, and ongoing weight loss showed that among Weight Watchers members who had initial success in losing at least 5% of their initial body weight, the majority regained weight over the subsequent 6 months; Weight Watchers members in general were at high risk of dropping out of the program altogether perhaps due to lack of success in losing weight and keeping it off (John et al 2015). Research has shown that the frequency of self-weighing is important for both prevention of weight gain and weight loss (Wing et al NEJM 2006; 355:1563-1571; Linde JA et al Ann Behav Med 2005; 30: 210-216). This study will build on our successful efforts using incentives for weight loss to test scalable ways of increasing the frequency of self-weighing among Weight Watchers members who had initial success in losing weight. This 2- arm randomized controlled trial will compare the relative effectiveness and cost-effectiveness of (1) weekly feedback without incentives to (2) weekly escalating lottery-based incentives among patients who successfully lost at least 5 kg over 4-6 months during participation in Weight Watchers (Pre Phase). Incentives will be provided to some study participants (Arm 2) for the first 6 months (Phase I), and then participants will be followed for 6 more months to examine effects following cessation of incentives (Phase II). A total of 259 participants will be randomized into the 2 arms.

Specific Aims

Aim 1: Among participants who lose 5 kg or more of baseline weight prior to randomization, assess the effectiveness of escalating lottery rewards, relative to the control group, on maintenance of weight loss over the ensuing 6 months (Phase I).

Aim 2: Assess the degree to which weight loss is maintained in the intervention group relative to usual care during the 6 months following the cessation of the interventions (Phase II).

Objectives

Overall objectives

1. Among participants who lose 5 kg or more of baseline weight prior to randomization, assess the effectiveness of escalating lottery rewards, relative to the control group, on maintenance of weight loss.
- 2: Assess the degree to which weight loss is maintained in the intervention groups relative to usual care during the 6 months following the cessation of the interventions (Phase II).

Primary outcome variable

Pounds of weight lost at the end of 6 months

Secondary outcome variables

1. Pounds of weight lost at the end of 12 months
2. Percent of individuals who maintained their weight (defined as gaining no more than 1.36 kg or 3 lbs) at 6 and 12 months
3. Average weekly weigh-in frequency during Phase I
4. Average weekly weigh-in frequency during Phase II
5. Linear trend for weigh-in frequency during Phase I
6. Linear trend for weigh-in frequency during Phase II
7. Self-reported physical activity at 6 months, as measured by total MET-minutes/week, total minutes in Moderate to Vigorous Activity (MVPA), and minutes/week walking
8. Self-reported physical activity at 12 months, as measured by total MET-minutes/week, total minutes in Moderate to Vigorous Activity (MVPA), and minutes/week walking
9. Eating behavior at 6 months (cognitive restraint, uncontrolled eating, emotional eating)
10. Eating behavior at 12 months (cognitive restraint, uncontrolled eating, emotional eating)
11. Proportion of the time people fall off the lottery escalation ladder
12. Number of resets to beginning for the lottery winnings

Exploratory outcome variable

Frequency of weight self-reported to Weight Watchers online

Background

Obesity is the second leading cause of preventable death in the United States, associated with high blood pressure (BP), type 2 diabetes, coronary heart disease, and osteoarthritis. Weight loss of just 5-10 kg can improve risk factors (e.g., BP, glycemia, and serum lipid levels) and reduce the incidence of diabetes. In older adults, weight loss interventions have shown clear improvements in BP, arthritis, and functional status. However, maintenance of weight loss is needed to achieve long term health benefits, and successful strategies for long-term maintenance are lacking. Weight regain after a period of intentional weight loss is widely observed with all interventions due to loss of motivation, lack of sustained rewards for weight loss behavior, difficulty adhering to diet, and need for ego-depleting exertion of willpower. For maximum generalizability, we will enroll study participants from Weight Watchers [WW]), the largest commercial weight loss program nationally. Since this program, like other successful weight loss interventions, has difficulty with weight loss maintenance, an external motivational source such as financial incentives may help people keep weight off better than standard approaches. Individuals put disproportionate value on the present relative to future costs and benefits, known as present-biased preferences. While this bias typically works against healthy behavior, the same factors can be used to promote compliance by providing tangible but small immediate rewards for beneficial behaviors. The literature most relevant to obesity interventions relates to the impact of incentives on addiction-related behaviors, which, like diet, are difficult to change and involve a conflict between an individual's long-term well-being and short-term cravings. As reported in the Contingency Management literature, financial incentives have been highly effective for such patients, leading to higher rates of program retention and abstinence. However, the most effective approaches are those that require monitoring several times a week, suggesting the importance of frequent feedback. A review of 11 randomized trials of financial incentives found that financial incentives promoted adherence better than any tested alternative, leading to better blood pressure control, appointment attendance, and higher immunization rates. Other reviews have found various incentives (including lotteries) effective in changing behavior. However, few studies have examined cost-effectiveness or longer-term effects of incentives on health behaviors after cessation of

incentives, or the relative effectiveness of traditional economic incentives versus behavioral economic incentives that consider the underlying psychology of decision making. The most compelling early work on incentives for weight loss was done by Dr. Robert Jeffery. He showed that participants without any weight management training lost weight when they deposited valuables with a therapist with return of their valuables contingent on progress towards pre-specified goals, and that incentives for weight loss are more effective than incentives for attending weight loss training sessions. Finkelstein et al. found that over a 3-month period, participants offered \$14 per percentage point of weight loss lost 4.7 pounds whereas participants offered \$7 lost 3.0 pounds and control participants lost 2.0 pounds. Incentives for maintenance of weight loss (\$10 for participants who gained weight) demonstrated higher rates of maintaining weight loss that were not statistically significant. These studies illustrate that incentives, even if small and infrequent, can be effective; higher rewards and more frequent feedback could substantially enhance these effects. Recent studies concluded that annual US expenditures attributable to overweight and obesity are between \$90 and \$100 billion. Among nationally representative cohorts, the average annual incremental cost of obesity per person is about \$1308. Higher BMIs in young adulthood and middle age are associated with substantially higher Medicare expenditures in old age. Higher BMI also translates into significantly higher health care charges within 18 months, suggesting that health plans may find it cost effective to invest in behavior modification to lower health expenditures. Several economic assessments of behavioral interventions for weight loss have been published. The Diabetes Prevention Program, reported that, compared to placebo, the intensive lifestyle intervention had cost per QALY ratios ranging between \$32,000 and \$52,000, depending upon whether direct medical costs alone or direct and indirect costs were counted. A comparison of low carbohydrate and low fat diets by Glick et al suggested that low carbohydrate diets may be cost effective. Finkelstein et al. reported that the 1-year incremental cost per 1% reduction in 10-year CHD risk associated with an enhanced behavioral intervention was \$637. The substantial health and economic consequences of obesity highlight the importance of testing new approaches to maintenance of weight loss and the potential cost effectiveness of successful interventions.

Study Design

Design

Study participants will be obese (at time of enrollment in Weight Watchers) volunteers recruited from a major community-based weight loss program (Weight Watchers (WW)), who have lost at least 5 kg over their first 4-6 months in the program. Eligible participants will be randomized to a control group (weekly feedback via text and email messaging and regular measurement of weight for 6 months), or an escalating lottery-based financial incentive. Participants will be asked to weigh in on a digital scale 6/7 days each week. Participants in the incentive arm will be eligible for weekly winnings based on weighing 6/7 days each week and will receive weekly feedback on their winnings to keep weighing goals salient. Participants in both arms will receive weekly tips on how to make weighing in frequently easier to do. There will be some diet & exercise-related tips mixed in with weighing in frequently tips. Between months 7-12 (Phase II) participants will receive no further incentives tied to weighing, nor will they receive a weekly tip. The study is powered to test the effectiveness of the intervention arm relative to control.

Study duration

We estimate it will take 9 months to enroll 259 participants. The intervention will last for 6 months. We will remove the intervention and observe changes in weight over the subsequent 6 months for a total length of participation of 12 months.

Characteristics of the Study Population

Target population

Eligible participants will be men and women ages 30 to 80 years who had a BMI of 30 to 45 kg/m² prior to starting Weight Watchers, have a documented weight loss of at least 5 kg in the past 4-6 months, are in stable health, and have an online Weight Watchers membership.

Accrual

Weight Watchers has over 1 million members. Weight Watchers will send invitations to their online members that meet our inclusion criteria and opted in for communications from Weight Watchers about research studies. Given the large pool of potential participants, we should be able to recruit 259 participants in 9 months.

Key inclusion criteria

(1) Individuals ages 30 to 80 years (2) BMI of 30 to 45 kg/m² prior to starting Weight Watchers (3) Have a documented weight loss of at least 5 kg in the first 4-6 months of joining Weight Watchers; (4) In stable health; (5) Have an online Weight Watchers membership. The age range represents those ages most affected by obesity in terms of prevalence, and of associated disease, disability, and healthcare costs.

Instead of targeting only older adults, we extend the lower age range to 30 years because obesity in middle age has a strong association with disability in later years. The upper limit of BMI will minimize the influence of outliers on the main result of weight loss and maximize the effect of incentives.

Key exclusion criteria

substance abuse; bulimia nervosa or related behaviors; pregnancy or breast feeding; medical contraindications to counseling about diet, physical activity, or weight reduction; unstable mental illness; screen positive for pathologic gambling on the basis of the 2 item Lie-Bet criteria (excluded if meets 1 or both criteria). Individuals unable to read consent forms or fill out surveys in English will be excluded.

Subject recruitment

Potential participants will be identified by Weight Watchers using our inclusion criteria. Weight Watchers will facilitate communication to these members using existing communication channels (email). Potentially eligible individuals will be invited to visit the Way to Health portal, an NIH-funded web-based infrastructure based at the University of Pennsylvania that is used to run behavioral economic intervention studies. Interested participants will be directed to the Way to Health platform where they will provide informed consent. These individuals will also be asked to enter data related to eligibility and their demographic and clinical characteristics through the Way to Health internet portal.

To enhance retention, we will provide a total of \$100 to participants in all arms. Participant compensation will be independent of degree of weight loss and randomization group as follows: \$50 for completing an online survey at the end of month 6 and at the end of month 12. All participants will also receive a free scale (value \$179). All payments will be approved electronically from the Way to Health platform. Payment information will be sent to Wells Fargo to process and sent to participants via check. Participants will receive an automated message from the Way to health platform notifying them of compensation after completing each required survey. Participants in the financial incentive arm of the study will receive additional payments based on their adherence to daily weighing at home as outlined below in Study Procedures.

Statistical Methods

Sample size justification

We have designed the study with adequate power to detect differences in maintenance of initial weight loss. Our intervention should achieve its maximal impact in maintaining initial weight loss at the end of Phase I, when the incentive payments cease. The primary analysis will be an intent-to-treat analysis that compares the weight loss at 6 months between the lottery and control arms, using a t-test at the 0.05 level for significance. Assuming 20% missingness, a 5 kg (11 lb) SD for weight change at 6 months, and at least 5 lb more weight loss for the intervention arm compared to control at 6 months, we will have at least 90% power to detect the improvement in our primary outcome.

Analytic approach

Primary and key secondary outcomes

The primary analysis will be an unadjusted between-arm comparison of the change in weight from baseline (randomization) to 6 months, using a t-test performed at the 0.05 significance level. The primary analysis will be done as an intent-to-treat (ITT) analysis, including each participant in the group to which she was randomized, regardless of adherence to the assigned intervention. The 6-month weight is determined as the first weight that is inside the 6-month visit window. A multiple imputation strategy based on baseline covariates (including study arm) will be used to fill in the missing data for the primary outcome. For more details see multiple imputation strategy below. A complete case analysis will be done as a sensitivity analysis. A second sensitivity, assuming weight returned to baseline (weight at time of randomization) may also be considered. We will also estimate the difference between arms at 6-month in an adjusted analysis where the change from baseline is regressed in a linear model on study arm, baseline weight, and other covariates including age, sex, race, BMI, education, income, and physical activity (total MET-minutes/week).

Analyses of the key secondary outcome, weight change between baseline and 12 months (Phase 2) will be conducted in a similar manner as the primary outcome. The 12-month weight is determined as the weight that is the first weight inside the 12-month visit window. The multiple imputation algorithm for the 12-month outcome will additionally consider the 6-month weight outcome as an additional predictor, using a chained imputation type approach.

Multiple Imputation Strategy

Missing primary outcome data, weight at 6 months, will be imputed using baseline covariates only (Imputation A); variables include age, sex, race, weight, BMI qualifying weight loss, education, income, IPAQ activity level, MET-minutes walking, the three domains of eating behaviors (cognitive restraint, uncontrolled eating, emotional eating, and two scores related to delayed gratification behavior. A supportive analysis will also be done also using post-randomization variables (Imputation B); these variables include the most recent logged weight and time since last weight, The imputation strategy for the weight at 12 months and other secondary outcomes will proceed in a similar manner. Weight at 12 months will additionally use the 6-month weight outcome, using chained imputation approach (1).

Analysis of other outcomes

The trend over time for the frequency of at-home weight measurements will be compared between arms using a generalized estimating equation (GEE) with an autoregressive (AR-1) working correlation model; specifically the mean number of days out of 7 is modeled and compared among study arms adjusting for study week and a week-by-arm interaction. Separate models will be fit for Phases 1 and 2. A linear mixed effects model with random intercept and slope for week will also be considered. An overall average weekly frequency of weighing in will be compared between arms for Phase I and Phase II using a similar GEE approach.

Additional secondary analyses include a between-arm comparison of the percent of individuals who maintained their weight (defined as gaining no more than 1.36 kg or 3 lbs) at 6 and 12 months. We will consider whether the amount of weight gain is correlated with the average number of times per week participants weighed themselves in a cross-sectional analysis at 6 and 12 months. Comparisons will also be made of the changes in self-reported physical activity and the three domains of eating behaviors (cognitive restraint, uncontrolled eating, emotional eating) at 6 months and 12 months after initial weight loss. Descriptive analyses will be done to examine the proportion of the time people fall off the lottery escalation ladder and the number of resets to beginning for the lottery incentive arm. All secondary analyses will follow in a manner similar to the primary analysis, considering both an unadjusted and adjusted approach. Imputation models for the secondary outcomes will include as predictors the baseline value for that outcome and the other baseline covariates considered for the imputation strategy A model, as described above. For secondary outcomes with < 10% data missing data, only a single imputation strategy (imputation A) may be considered.

Exploratory Analyses

We will summarize the frequency of the self-reported weights in Phase I and Phase II and examine whether there will be a difference by arm. We will further explore intervention effects and examine whether there may be a potential interaction between the baseline delayed gratification score and treatment arm.

Study Procedures

Procedures

Potentially eligible patients will be sent emails directing them to the Way to Health website. Participants will be required to sign up online and complete the screening questionnaire where they will be asked to document their previous weight loss. The screening questionnaire has been attached.

Participants will be asked to electronically sign the consent and complete the demographic survey on the platform. Participants will then be randomized to one of two study arms. Immediately following randomization, each participant will receive a description of her assigned treatment condition by email and on the study websites dashboard (See Control and Escalating Lottery dashboard instructions attached). Participants will self-monitor their weights daily. Every day, at a time convenient for the participant, participants will weigh themselves using the internet-enabled scale. The scale will wirelessly transmit their weight data where it will be stored on the Way to Health portal. Each week, subjects will be text paged with feedback on their progress relative to their weekly goal. Participants in the escalating lottery arm will be eligible for a weekly lottery with an expected value of \$3.98 in week 1 that will increase by \$0.43 per week if, prior to resolution of the lottery, they weighed in 6 out of 7 days the prior week. If participants in the escalating rewards arm miss the target in a given week, they will go back to the beginning of the escalating rewards schedule, with one exception: participants will be given the opportunity to return to their previous place in the schedule if they meet goals the following week.

The lottery provides both infrequent large payoffs (a 1 in 100 chance at a \$110 reward in week 1) and frequent small payoffs (an 18 in 100 chance at a \$16 reward in the week 1) since subjects are motivated by both the future (fixation on large potential winnings) and the past (how often did I win?). Participants in the lottery arm will be asked to pick a 2-digit number upon entry into the study, e.g. 27. A two digit random number will be generated for each week. If the random number includes one digit, either a 2 or 7 in the same position as the participant's number (an 18 in 100 chance), and the subject weighed in at least 6 days that week, s/he wins a small reward. If the random number matches 27 exactly (a 1 in 100 chance) the subject wins the large reward. When a subject does not meet their goal of weighing in 6/7 days in a week, we will still generate a 2-digit daily number and tell the subject if s/he would have won the lottery that week if s/he had weighed in at least 6 out of 7 days. We believe that a desire to avoid the regret associated with not winning combined with learning that one would have won, had one been adherent, will motivate participants to a greater degree than only on

the value of the rewards. Other than the total number of lottery weeks (24), there is no limit to the number of times a person could win the daily lottery if their number comes up; however, for participants who make all of their weekly goals for the entire 6 months (24 weeks) of the intervention, the expected value of the lottery is approximately \$214.

All participants will be required to complete online surveys at months 6 and 12. Participants will receive automated emails/text messages from the Way to Health platform notifying them of their compensation payment for completing each of the required surveys at months 6 and 12. Participants will receive \$50 for surveys at months 6 and 12. All payments will be approved electronically from the Way to Health platform. Payment information will be sent to Wells Fargo to process and send to participants via check every week. Between months 7-12 (Phase II), participants will not receive incentives tied to weighing in to evaluate sustainability of effects achieved in Phase I.

Subject Privacy

Potential participants will be identified by reviewing Weight Watchers records using the inclusion criteria. Weight Watchers will facilitate communication to these members using existing communication channels (email). Interested participants will be directed to the Way to Health portal where they will be asked to enter data related to eligibility and their demographic characteristics. Enrollment will include a description of the voluntary nature of participation, the study procedures, risks and potential benefits in detail. The enrollment procedure will provide the opportunity for potential participants to ask questions and review the consent form information with family and friends prior to making a decision to participate. Participants will be told that they do not have to answer any questions if they do not wish and can drop out of the study at any time, without affecting their medical care or the cost of their care. They will be told that they may not benefit directly from the study and that all information will be kept strictly confidential, except as required by law. Subjects will be given a copy of the consent document. All efforts will be made by study staff to ensure subject privacy.

Consent

Consent Process

Overview

Potential participants will be identified by reviewing Weight Watchers records using our eligibility criteria. Weight Watchers will facilitate communication to these members using existing communication channels (email). Potentially eligible individuals will be invited to visit the WTH portal. Potentially eligible individuals will enroll directly through the WTH platform, which steps them through screening and consent process electronically.

Risk / Benefit

Potential Study Risks

The incentive programs could be detrimental to individuals with certain psychiatric issues such as bulimia nervosa or gambling disorder. We will screen for and exclude people with these disorders during recruitment. Because of the low prevalence of these disorders in our target population, we anticipate this to be an infrequent occurrence. The main risk is loss of confidentiality, which will be protected as described below. Database Security/Protection against Risk. To assure that patient, physician and other informant confidentiality is preserved, individual identifiers (such as name and medical record number/physician billing identifier) are stored in a single password protected system that is accessible only to study research, analysis and IT staff. This system is hosted on site at The University of Pennsylvania (UPenn) and is protected by a secure firewall. Once a participant is in this system, they will be given a unique study identification number (ID). Any datasets and computer files that leave the firewall will be stripped of all identifiers and individuals will be referred to by their study ID. The study ID will also be used on all analytical files. Additionally, any information that leaves this system to communicate with third party data sources (biometrics devices, survey software, etc.) will be stripped of any identifiers and transmitted in encrypted format. The same unique study ID will be used to link these outside data to the participants. Social security numbers, bank account and routing numbers for all participants to whom payments are sent will also be transmitted in encrypted format to UPenn's Financial Systems/Comptrollers Department where data will be stored for compliance with W-9 form reporting requirements. After the social security numbers are no longer needed they will be deleted from our system. The Way to Health (WTH) Research Data Center staff is responsible for preventing unauthorized access to the trial participant tracking system database. It is important to note that the Way to Health database server and individual study databases have never been compromised as a result of the extremely rigorous and secure network firewall technologies. The secure servers are located in a specially designed, highly secured facility at UPenn with dedicated uninterrupted power supply and strictly limited access. The study will utilize a client-server deployed Data Management

System (DMS) rather than a 'Store and Forward' database configuration, obviating research site database security concerns. Confidential participant information will be entered into the database. Thereafter, confidential information will be made available to authorized users only as specifically needed. No one can gain access to an individual MySQL database table unless explicitly granted a user ID, password, and specific access. Even those with user names and passwords cannot gain access to the tables that contain the identifying participant information. No results will be reported in a personally identifiable manner. All tracking system data will be password-protected with several levels of protection. The first will allow access to the operating system of the computer. The second will allow access to the basic menus of the integrated system; within certain menu options, such as database browsing, a third password will be required. Our prior research employing similar precautions has demonstrated that these techniques are very successful in assuring the protection of subjects. The same procedure used for the analysis of automated data sources to ensure protection of patient information will be used for the survey data, in that patient identifiers will be used only for linkage purposes or to contact patients. The study identification number, and no other identifying information, will be used on all data collection instruments. All study staff will be reminded to appreciate the confidential nature of the data collected and contained in these databases. In order to monitor for excessive weight loss, the CRC will be sent an alert if a participant loses more than 10pounds in one week and/or 20 pounds in one month. In all such instances the participant will be contacted to screen for unsafe weight loss behaviors. The PIs will review all such cases.

Potential Study Benefits

This study proposes to focus on the effectiveness of financial incentives as a means of encouraging weight maintenance in obese volunteers. Given the lack of effective approaches to maintenance of weight loss, the proposed study will contribute to the field by examining the effectiveness of an innovative incentive design that involves study-provided incentives for frequent weighing of oneself and its possible effects on weight loss maintenance. This type of intervention could help ameliorate disparities in health outcomes because obesity is more prevalent in minority populations and is a major risk factor for adverse health events. This approach has potentially broad generalizability in treating the obesity epidemic nationally, as these types of financial incentives could be set up by insurers and broadly utilized. As stated previously, findings from this important research will provide further information concerning the management of obesity and maintenance of weight loss.