



Reach by effectiveness: Understanding the impact of a commercial worksite weight loss program



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Obesity in Workplace

- Wellness programs at work sites
- Healthcare cost/employee - \$ 5200
- High expenditure
 - 1% ↑ in BMI – Healthcare cost ↑ \$120/year
 - Yet only 1-2% of health resources are used for prevention

Whitmer, et al, 2003

Blue Cross Blue Shield of Massachusetts, 2001



Worksite Health Promotion Programs

- As two thirds of employees are overweight or obese worksites need to consider multiple factors in selecting appropriate programs
- Factors used when considering public health impact for worksites includes
 - ✓ Effectiveness (i.e., does it work?)
 - ✓ Reach (i.e., does it engage a lot of people?)
 - ✓ Retention (i.e., how many people stick with it?)

(Glasgow, 1999; Estabrooks & Glasgow, 2007)



Problems with reporting of reach

- 61 worksite weight loss studies reviewed
 - 26 reported reach
 - 45 reported effectiveness
- Less than 25% reported reach and effectiveness outcomes
- Thus limitation for employers in making informed decisions

No study on commercial programs



Study Purpose

To determine the reach and effectiveness of a commercial internet and incentive-based weight loss program delivered in worksites.

To compare typical intention to treat analyses-based program descriptors with descriptors that explicitly involve reach, effectiveness, and retention.

IncentaHealth™ Intervention

Commercial Internet &
Incentive Based

Quarterly Modest
Incentives
\$1/1% wt loss/per month

Daily Email
Support
Exercise & Eating Plans

Onsite Weigh Station
Website Resource

Electronic Support System

• Daily Email Coaching:

- Motivation
- Exercise schedule
- Nutrition/Meal plan
- Customized based on individual profile

• Interactive Guide:

- Meal ideas/recipes
- Food facts and 'Ask the Dietitian'
- Animated exercise explanations
- Components of a workout
- Discussion forums with other participants!

incentaHEALTH - Helping You Build A Healthier Body - Microsoft Internet Explorer

Tension Band Curls

Biceps, Brachialis and Brachioradialis



CLOSE

- Grab hold of the handles of a tension band, and stand at the midpoint of the band.
- Place your feet shoulder width apart, with your knees slightly bent and your arms fully extended at your sides.
- Raise the tension band handle by flexing your arms towards your shoulders.
- Slowly lower the tension band under control until your arms are extended.



Hello, ToddInmeddett!
A Better Way Day 24



incentaHEALTH

Healthy Eating

Vegetable



Carbs Protein

Think of each meal as a plate of food divided into quarters. Each time you sit down to one of your main meals (breakfast, lunch and dinner), think of your plate as four quadrants. One quadrant should contain protein (fish, meat, poultry, cottage cheese, etc.). One quadrant should contain a carbohydrate (sweet potato, yam, fruit, whole grain bread, etc.) and the final two quadrants should contain vegetables. Your body naturally fills up on leafy vegetables, so you can eat as many as you like! For breakfast, you will probably substitute the veggies for some fruit/raisins. For your mid-meal snacks, visualize half of a plate and just combine your favorite protein and carbs.

Quote of the Day

"It's the constant and determined effort that breaks down all resistance and sweeps away all obstacles."
- Claude M. Bristol

Make a Journal Entry

Click here to make a journal entry.

Ask the Personal Trainer

Click here to ask your exercise and nutrition questions.

Exercise



CARDIO

30 Minute Continuous Cardio Workout

Warm-up by slowly picking up your pace for the first 2 minutes.

For the next 26 minutes you should hold a continuous pace which elevates your heart rate with your training heart rate.

Cool-down by gradually slowing your pace for the last 2 minutes.

If you are already doing more than 10 minutes of cardio, continue with your current level until our program catches up with you!



Mon Tue Wed Thu Fri Sat Sun

Week 4

click icon for workout details

View all 12 weeks

Cardio Examples:
Walking
Running
Biking
Swimming
Climbing Stairs
Rowing



Mon Tue Wed Thu Fri Sat Sun

Week 4

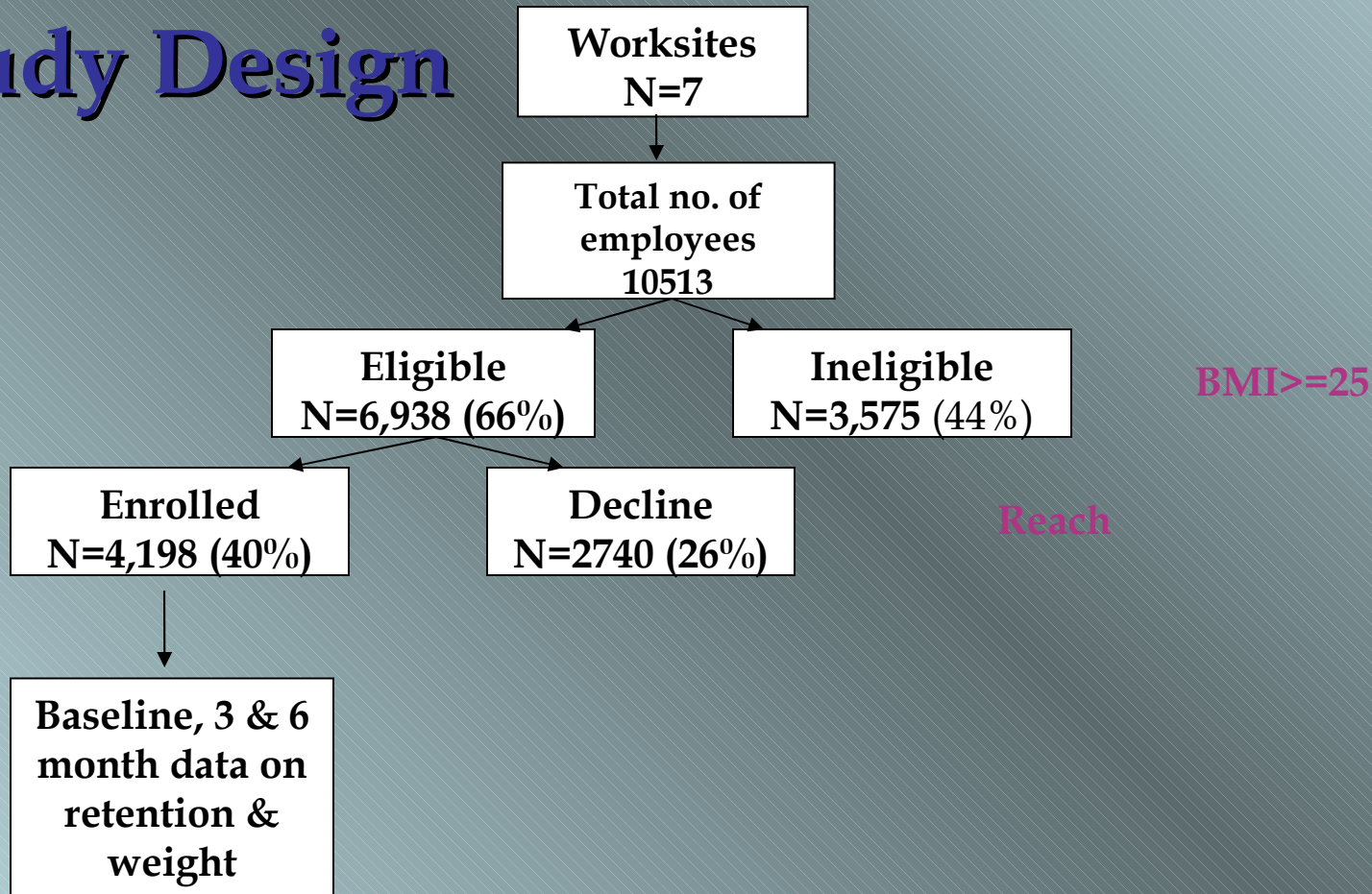
click icon for workout details

View all 12 weeks

Cardio Examples:
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Study Design





Participant Characteristics

Gender
66% F, 34%M

Mean Age
44.1 (18-71)yrs

Mean Weight
206 (121-440)lbs

Mean BMI
32.4 (25-67) kg/mtr²



Results: Intention to Treat

Typical reporting of results using baseline value carried forward for missing cases:

- Weight loss at 3 months: 2.1lbs ($p < .01$)
- Weight loss at 6 months: 2.5lbs ($p < .01$)
- Approximately 1.25% of initial body weight
- Not very compelling and likely would lead to conclusion the program was unsuccessful (even though statistically significant)



Results: Reach & Retention

•Reach

- 4198 employees participated
- 60 percent of those eligible
- 40 percent of overall employee population

•3 Month Retention

- 1928 participants
- 28% of those eligible
- 18% of overall employee population

•6 Month Retention

- 1607 participants
- 23% of those eligible
- 15% of overall employee population

A wide-angle photograph of the Virginia Tech campus, showing the iconic Campanile tower in the center, surrounded by trees with autumn foliage and other campus buildings under a blue sky with light clouds.

Results: Reach & Retention & Effectiveness

- 6 months

- 1088 participants successfully lost weight
- 16% of those eligible
- 10% of overall employee population

- 9.4 pounds (95% CI: 8.8 to 9.9 pounds)

- 4.4% of initial body weight



Conclusion

- Different methods of presenting the same data can lead to very different conclusions about a program.
- Based on intention to treat results the participants in this program lost a very modest 1.25% of initial body weight
 - While scientifically sound this metric does not take into account programs that may have broad reach
- Using reach, retention, and effectiveness data provides a richer source of information to truly indicate what proportion of an employee population will benefit, and to what degree.



Questions?