

# Obesity Prevention in Worksites

What has been done, what is being done,  
and what is the problem?

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# OVERVIEW

- Review of worksite interventions
  - Environmental interventions
- NHLBI initiative
- Opportunities and Challenges

# Research Projects

## Environmental Strategies

All strategies that do not require the individual to self-select into a defined educational program (e.g., self-help programs, classes or groups)

Glantz K, 1986

Aim at reducing barriers or increasing opportunities for healthy choices

Glantz K, 1985

## Research Projects

Environmental Strategies: limited scope

- Targeting 1-2 aspects of food and PA environment
- Designs: before and after design, group-randomized trial
- Interventions: pricing, point of sales icons in vending machines and fruit and salads in cafeterias, stairwells

# Research Projects

Environmental Strategies: limited scope

- People went for value not labeling
- Fruit purchases returned to baseline
- Salad purchases slightly above baseline
- Pretty stairwell increased use

# Research Projects

Environmental Strategies: multiple component

- Targeting physical activity, dietary intake and health risk indicators (e.g., BMI, lipids, smoking)
- Worksite Health Promotion programs: Group randomized control trials or control trials
- Some included individual-level interventions (e.g., counseling)
- 13 studies from 1987 to 2004 (1-2 years)

Engbers LH, et al. American Journal of Preventive Medicine 2005

# Research Projects

Environmental Strategies: multiple component

## Intervention examples

### Individual

Smk counseling

Skill training

Incentives

Group sessions

### Food Env

Changes in  
cafeterias and  
vending

Food labeling

Healthy menus  
posted

### PA Env

Stairs

Walking tracks

Exercise space  
equipment

# Research Projects

## Environmental Strategies: Multiple Component

### Results

- Strong evidence for effect on dietary intake
- Inconclusive evidence for an effect on physical activity
- No evidence for an effect on health risk indicators
- No evidence on BMI



# Research Projects

Environmental Strategies: multiple component  
Beyond 2004

- Healthy Directions-Small Business  
Increase PA, fruit and vegetables and  
multivitamin use and decrease red meat  
consumption for cancer prevention  
—↑ PA and multivitamin use

Sorensen G., et al. 2005

# NHLBI Initiative

- To test interventions emphasizing environmental approaches to behavior change for **overweight and obesity control**

- **The 3W Program:** Hotels in Hawaii. Kaiser Permanente
- **Images of a Healthy Worksite:** One corporation with multiple sites. U. of Rochester
- **Approaches to Obesity Prevention and Management at the Dow Chemical Company:** One corporation multiple sites. Cornell University, Thomson Medstat, U. of Georgia
- **ACTION!:** In school settings. Tulane U.
- **The PACE Project:** Small-middle size business. U. of Washington, Seattle
- **Route H:** Among city bus drivers employed at four garages. U of Minnesota
- **Step Ahead:** Among hospital employees. U. of Massachusetts

HEALTHY

Choices

# Images of a Healthy Worksite

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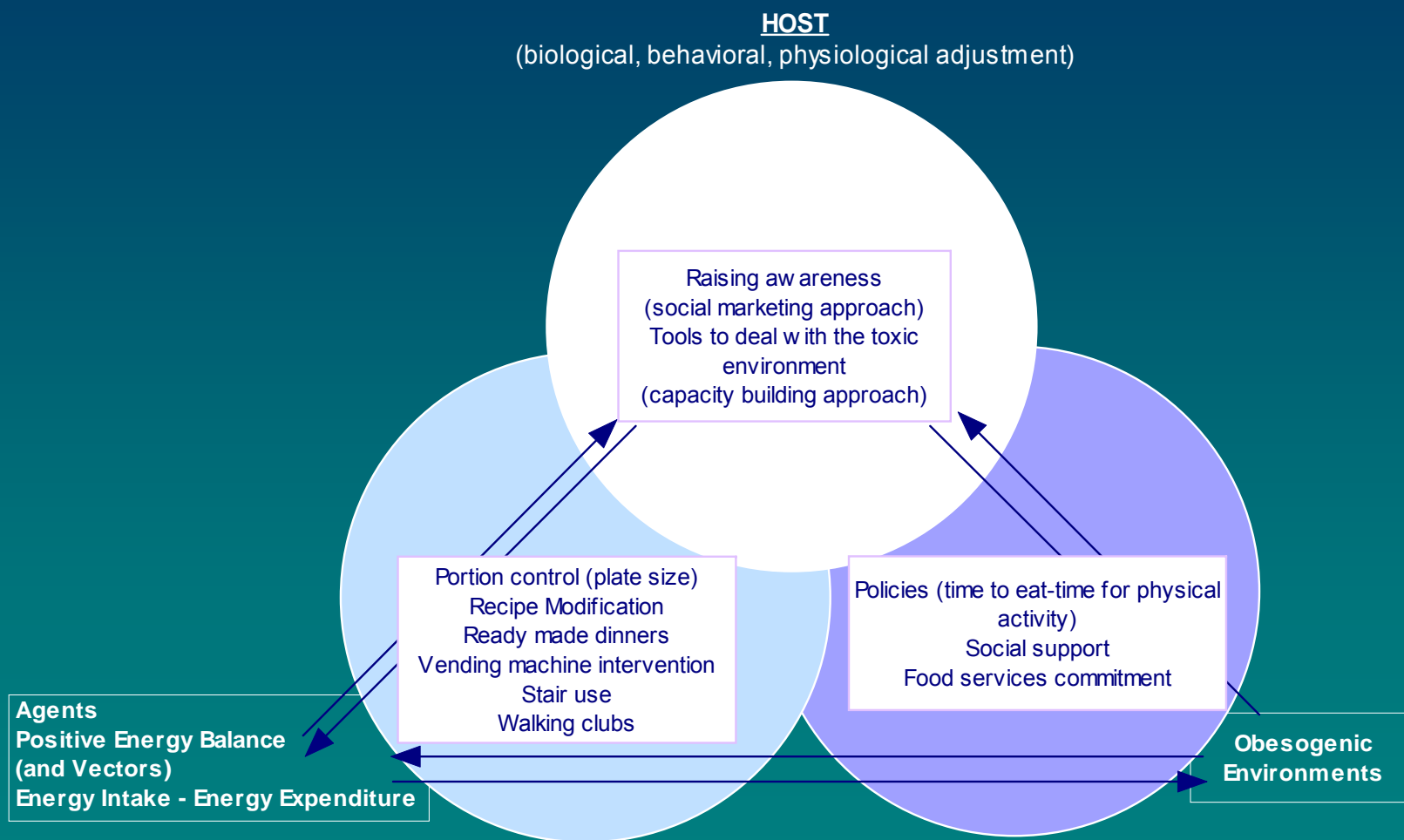
*Ann Dozier, PhD*

*Scott McIntosh, PhD*

# GOAL

- To promote a *healthy lifestyle* in order to stop the shift of the population body mass index (BMI) curve to the right
- Participatory approach

# Interventions



The epidemiological triad and approaches to interventions in relation to obesity

# Manufacturing Company

Year 1

Formative Research

Within pair randomization  
N = 5 pairs (6)

Intervention  
n=5 (6) sites

Control  
n =5 (6) sites

Year 2

Cross-sectional sample

Cross-sectional sample

Year 3

Cross-sectional sample

Cross-sectional sample

BMI

F&V

# Steps/day

# Prioritization Matrix

Please Rank the following interventions using the scale  
1=poor 2=fair 3=neutral 4=good 5=excellent

	<b>Resources needed</b>	<b>Potential for support</b>	<b>Sustainability</b>	<b>Effectiveness</b>	<b>Feasibility Ranking (sum of 4 columns)</b>
<b>Broader vending selection</b>					
<b>Cafeteria cleanliness</b>					
<b>Vending beverages</b>					
<b>Locker room with showers for males &amp; females</b>					
<b>Inside walking routes with distances</b>					



# Nutrition Interventions

- ‘Healthy Choice’ entrees or ½ portions
- Calorie cards for all prepared lunch items
- Buy-3-Get-1-Free punch cards
- Taste testing of light and fat-free salad dressings

**HEALTHY** *Choices*

**Veggie Side**

**Buy 3 veggie side dishes, get the 4th free!**  
(maximum value: \$0.86)

1 2 3 **FREE**

**HEALTHY** *Choices*

**1/2 Portions**

**Buy 3 half portions, get the 4th free!**  
(maximum value: \$2.97)

1 2 3 **FREE**

A project of the  
**UNIVERSITY OF  
ROCHESTER  
MEDICAL CENTER**  
Department of Community & Preventive Medicine

*Images*  
of a  
**HEALTHY WORKSITE**

**HEALTHY** *Choices*

**Entree**

**Buy 3 entrees, get the 4th free!**  
(maximum value: \$4.59)

1 2 3 **FREE**

**HEALTHY** *Choices*

**Fresh Fruit**

**Buy 3 fresh fruits, get the 4th free!**  
(maximum value: \$0.75)

1 2 3 **FREE**

# Nutrition Interventions (cont'd)

- “Fresh Vending” machines
- Break room receives deliveries of fresh fruit three times a week
- “Choose the Right One” campaign

# Physical Activity Interventions

- Indoor and outdoor walking routes
- Promotion of gyms through literature and Lunch & Learn demonstrations
- Exercise equipment in the building
- Walking groups

# Awareness Interventions

- Posters rotation
- Health Fairs on nutrition and physical activity
- Lunch and Learn talks
- Shift work and sleep presentation
- Newsletters
- Website

# Drink Healthy Drink Light

with less sugar

**12 oz. 100% Orange Juice**  
130 Calories

**32 oz. Creamy Orange Slushy**  
440 Calories  
24 tsp. Sugar

**Did you know?**  
A 32 oz. orange slushy has the same sugar content as 130 small jelly beans.

**12 oz. Blueberry Flavors**  
300 Calories

**32 oz. Thick Chocolate Shaks**  
1,160 Calories  
40 tsp. Sugar

**Did you know?**  
A 32 oz. chocolate shake can have the same sugar content as 373 chocolate candy pieces.

**20 oz. Bottled Water**  
0 Calories

**44 oz. Soft Drink (cola flavor)**  
520 Calories  
32 tsp. Sugar

**Did you know?**  
A 44 oz. cola flavor soft drink has the same sugar content as 30 gummy worms.

**12 oz. Vegetable Juice**  
70 Calories

**20 oz. Sugar-Added Fruit Drink**  
300 Calories  
18 tsp. Sugar

**Did you know?**  
A 20 oz. sugar-added fruit drink has the same sugar content as 23 fruit chews.

**16 oz. Fitness Water**  
30 Calories

**20 oz. Sugar-Added Power Water**  
145 Calories  
8 tsp. Sugar

**Did you know?**  
A 20 oz. sugar-added power water has the same sugar content as 15 hard roll candies.

**9 oz. Sports-Ads Drink**  
90 Calories

**24 oz. Energy Drink**  
330 Calories  
20 tsp. Sugar

**Did you know?**  
A 24 oz. energy drink has the same sugar content as 55 chocolate-coated caramels.



You've Been CAUGHT!

A member of the Healthy Choices Team caught you making a healthy choice.

**CONGRATS!**

For questions call Raquel Garcia @ 275-1524.

**Redeem this card for an immediate prize!**

Name: \_\_\_\_\_

Phone/Dept: \_\_\_\_\_

Multiple drawings will be held on **June 4<sup>th</sup>** @ **11AM** in the cafeteria dining area.

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# Challenges, opportunities and other nuisances-INTERVENTIONS

- Estimating resources
- Employee involvement
- Where is the greater context left?
- Working with gigantic administrations
- Integration with HR
  - Binding contracts?
  - Contamination





HEALTHY *Choices*

Buy 3 veggie side dishes, get the 4th free!  
(maximum value: \$0.86)

- 1
- 2
- 3
- FREE



HEALTHY *Choices*

Buy 3 fresh fruits, get the 4th free!  
(maximum value: \$0.75)

- 1
- 2
- 3
- FREE

eat well. live well.  
*challenge*

Purchase 10 fruits or vegetables and  
receive 1 FREE!  
(up to \$1.00 off a vegetable or fruit purchase)  
NO CASH VALUE

1	2	3	4	5
6	7	8	9	10

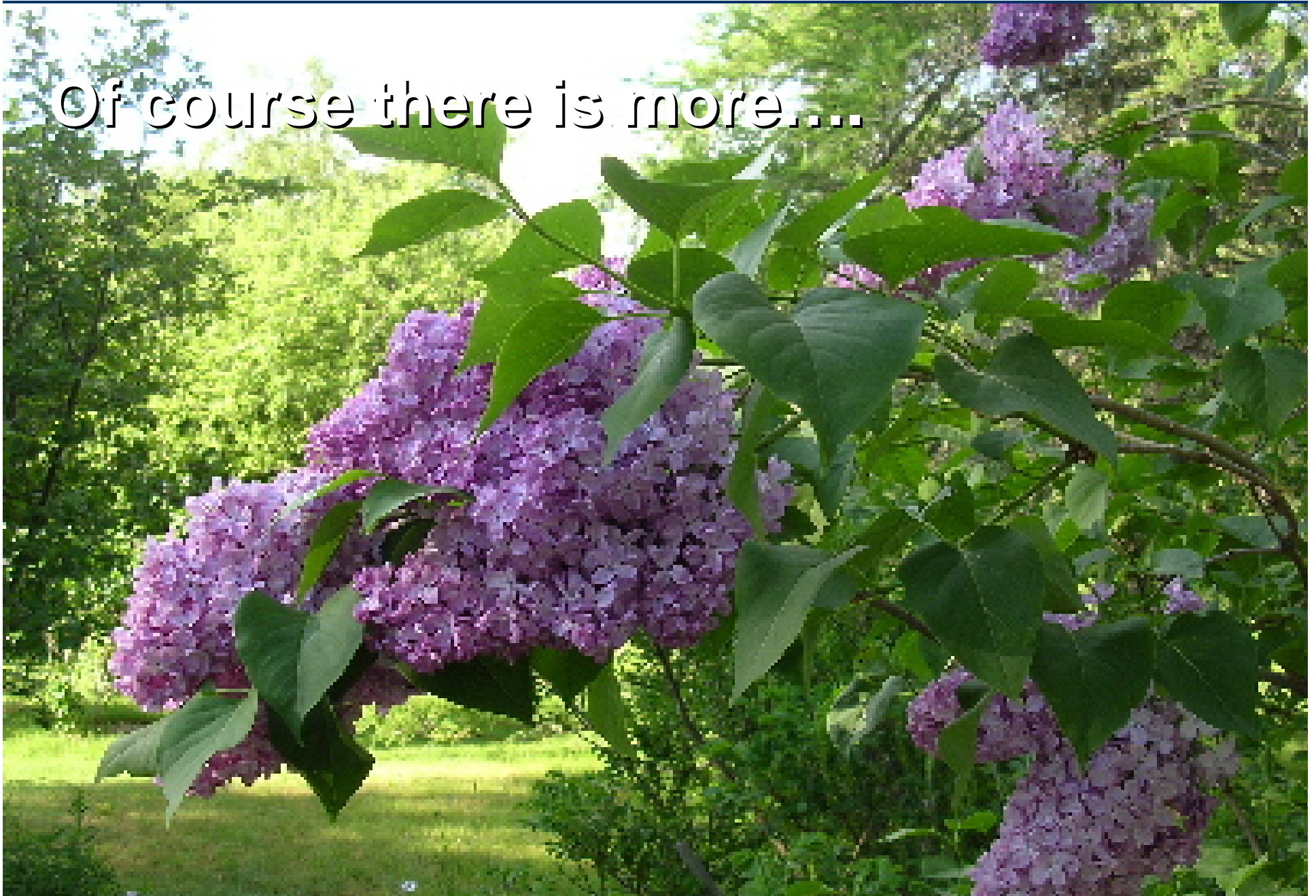
# Challenges, opportunities and other nuisances-EVALUATION

- Are we looking at the right outcomes?
- Including measures of the greater context.
- Measurement fatigue/pure control building
- Variation in intervention delivery (Williams A, PhD)
  - How closely we adhere to the protocol?
  - Translation to the real world

# Challenges, opportunities and other nuisances-SPECIFIC METHODOLOGIES

- Should we use behavioral methods to target:
  - Early adopters
  - The whole population

Of course there is more....



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