

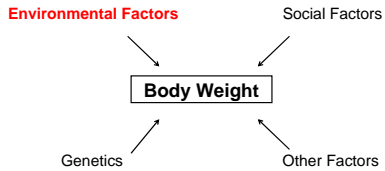
# Modifying the Worksite Environment to Support Individual Behavior Change

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## The Obesity Problem

- 2/3 of US adults are overweight or obese
- Body weight is influenced by multiple factors



## Objectives

Test two levels of environmental interventions in a worksite setting:

• **Moderate-level:** array of inexpensive environmental changes primarily to the physical environment

- Targeted messages
- Access to healthy foods
- Access to physical activity
- Employee recognition

• **Intense-level:** reflects a high level of commitment and resources throughout the organization aimed at achieving an impact on the social-organizational environment

- Worksite goal setting
- Workgroup alignment to site goals
- Reporting to senior leadership
- Leader training
- Site based recognition

## Study Design

- Quasi-experimental
- Treatment vs. Control
- Four-year study with three data points: baseline, year 1 (T1), and year 2 (T2)
- 12 participating sites
- Intervention sites, matched then randomly assigned to moderate or intense
- Intervention sites: Texas and Louisiana
- Control sites: New Jersey, West Virginia, and Louisiana
- Number of eligible employees: 10,191

## Data Sources

- Direct observation
- Environmental assessment
- Cafeteria audit
- Vending audit
- Surveys
- Peer leaders
- Employees
- Interviews with site contacts
- Focus groups with peer leaders

## Targeted Messages

Site	% Areas with Signs Physical Activity			% Areas with Signs Nutrition/Weight		
	Baseline	T1	T2	Baseline	T1	T2
Control						
Site 1	0%	9%	8%	8%	0%	4%
Site 2	18%	21%	25%	12%	14%	10%
Site 3	6%	11%	9%	12%	11%	5%
Moderate						
Site 4	31%	55%	35%	19%	77%	55%
Site 5	20%	35%	19%	20%	70%	81%
Site 6	15%	67%	52%	8%	61%	61%
Site 7	33%	45%	45%	0%	73%	82%
Intense						
Site 8	33%	64%	44%	33%	55%	64%
Site 9	25%	50%	30%	0%	38%	60%
Site 10	0%	50%	0%	0%	100%	63%
Site 11	80%	0%	21%	80%	100%	100%
Site 12	33%	48%	27%	33%	55%	27%

## Access to Healthy Foods

### Cafeteria

#### Healthy Food Requirements

- 3 fresh fruits/4 vegetables
- 50% of dairy meet healthy criteria
- 25% of vending snacks are healthy
- Healthy foods labeled and visible
- What's New messages communicated
- Use healthy catering reference
- 2 whole grains/cereals
- 50% of entrée meet healthy criteria
- 40% of vending beverages are healthy
- ½ catered orders are healthy
- Healthy foods promotionally priced
- Table tents/posters displayed

Site*	% Requirements Met	
	T1	T2
Moderate		
Site 6	8%	67%
Intense		
Site 8	17%	100%
Site 9	17%	100%
Site 11	83%	92%
Site 12	83%	92%

\*Not all sites have cafeterias. Only sites with cafeterias are shown.

## Access to Healthy Foods

### Vending

Site	Goal: 25%			Goal: 40%		
	% Healthy Snacks/Chips	% Healthy Beverages		% Healthy Snacks/Chips	% Healthy Beverages	
Baseline	T1	T2	Baseline	T1	T2	
Control						
Site 1	13%	1%	15%	32%	31%	28%
Site 2	11%	11%	10%	30%	34%	25%
Site 3	6%	5%	14%	42%	48%	50%
Moderate						
Site 4	11%	30%	21%	17%	25%	36%
Site 5	8%	14%	11%	26%	30%	31%
Site 6	9%	18%	16%	17%	23%	33%
Site 7	9%	16%	10%	21%	22%	25%
Intense						
Site 8	9%	16%	17%	28%	29%	33%
Site 9	13%	14%	10%	23%	41%	33%
Site 10	8%	24%	17%	28%	33%	15%
Site 11	14%	18%	19%	34%	26%	49%
Site 12	11%	18%	26%	38%	40%	43%

## Access to Physical Activity

Site	Walking Path			Fitness Room			Subsidized Fitness Membership		
	Baseline	T1	T2	Baseline	T1	T2	Baseline	T1	T2
Control									
Site 1	No	No	No	Yes	Yes	Yes	No	No	No
Site 2	No	No	No	Yes	Yes	Yes	No	No	No
Site 3	No	No	No	Yes	Yes	No	No	No	No
Moderate									
Site 4	No	Yes	Yes	Yes	Yes	Yes	n/a	Yes	Yes
Site 5	No	Yes	Yes	Yes	Yes	Yes	n/a	Yes	Yes
Site 6	No	Yes	Yes	Yes	Yes	Yes	n/a	Yes	Yes
Site 7	No	Yes	Yes	Yes	Yes	Yes	n/a	Yes	Yes
Intense									
Site 8	No	Yes	Yes	Yes	Yes	Yes	n/a	Yes	Yes
Site 9	No	Yes	Yes	Yes	Yes	Yes	n/a	Yes	Yes
Site 10	No	Yes	Yes	No	No	n/a	n/a	Yes	Yes
Site 11	No	Yes	Yes	No	No	n/a	n/a	Yes	Yes
Site 12	No	Yes	Yes	Yes	Yes	Yes	n/a	Yes	Yes

## Employee Recognition

Site	# Employees Recognized	
	T1	T2
Moderate		
Site 4	14	11
Site 5	22	6
Site 6	15	20
Site 7	9	9
Intense		
Site 8	124	62
Site 9	9	9
Site 10	9	9
Site 11	14	0
Site 12	20	4

## Peer Leaders Instrumental in Increasing Health Messaging

- 97% posted intervention posters quarterly
- 83% encouraged healthy food choices to be made available at meetings/events
- 61% nominated an employee for recognition
- 69% promoted employee recognition

## Employee Response Positive

- Employees indicate that the program has had a slightly positive effect on health, fitness level, and healthy food selection
- 77% of employees remember seeing posters with health messages
- Participation Levels
  - Healthy choice food options: 59%
  - Walking paths: 21%
  - Recognition: 14%
- Helpfulness (1=completely unhelpful, 5=very helpful)
  - Healthy choice food options: 4.2
  - Walking paths: 3.7
  - Recognition: 3.4

## Conclusions

- Inexpensive environmental interventions can be successfully implemented in a worksite setting
- Peer leaders are an effective mechanism to implement and support environmental interventions
- Increasing healthy vending options can be challenging and requires coordination with vendors
- Healthy food options made available at the worksite impact employees food selection
- It is important to consider the location and weather when implementing walking paths
- Employee recognition programs, in comparison to other interventions, are perceived as less helpful