

Challenges of Implementing a Healthy Choice Vending Intervention



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Presentation Outline

- Background information
- Vending intervention components
- Preliminary effectiveness
- Strengths and opportunities
- Potential improvements



Background Information



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LightenUP Objectives



■ The Dow Chemical Company

- Founded 1897 in Midland, Michigan
- 180 manufacturing sites in 37 countries, including many US states



■ Ecological intervention directed at overweight and obesity prevention

- Moderate and high intensity intervention levels
- Access to healthy food and beverage *vending* choices
intervention included in both levels





Components of a Healthy Choice Vending Intervention



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Vending Intervention

- 25% selection of Healthy Choice (HC) snacks
- 40% selection of HC beverages
- Differential Pricing (25% less expensive)
- HC labeling on food and beverage items
- Monthly Newsline messages
- Educational table-tents

Healthy Choice Vending Items

- Fat: $\leq 30\%$ of calories[†]
- Sugar: $\leq 35\%$ sugar by weight[‡]
- Beverages
 - 100% fruit juice
 - Water
 - Diet Soda



[†] Calories from fat calculated by multiplying the fat grams by 9 (9 calories in a gm of fat), dividing that product by the total number of calories in the item and multiplying the figure by 100.

[‡]Sugar calculated by using the grams of sugar in the item divided by the product weight in grams and multiplying the figure by 100. Exception to this would be if the item contained concentrated, dried, fresh or canned fruit.

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Preliminary Effectiveness



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Vending Machine Data

- Few sites met the goals but some improved, especially beverages

Site Name	% Healthy Snacks/Chips			Healthy Priced < Unhealthy			% Healthy Beverages			Healthy Priced < Unhealthy		
	2005	2006	2007	2005	2006	2007	2005	2006	2007	2005	2006	2007
Moderate Intervention												
Site #1	9%	16%	10%	No	Yes	No	21%	22%	25%	No	No	No
Site #2	8%	14%	11%	No	Yes	Yes	26%	30%	31%	No	No	No
Site #3	9%	18%	11%	Yes	Yes	No	17%	23%	33%	No	No	No
Site #4	11%	30%	19%	No	Yes	Yes	17%	25%	36%	No	No	No
Intense Intervention												
Site #5	13%	14%	10%	No	Yes	Yes	23%	41%	33%	No	No	No
Site #6	9%	16%	15%	No	Yes	No	28%	29%	33%	No	No	Yes
Site #7	11%	18%	23%	No	Yes	No	38%	40%	43%	No	No	No
Site #8	14%	18%	19%	No	Yes	No	34%	26%	49%	No	No	No
Site #9	8%	24%	13%	No	Yes	Yes	28%	33%	15%	No	No	No
Control												
Site #10	13%	1%	15%	No	Yes	No	32%	31%	28%	Yes	No	Yes
Site #11	11%	11%	10%	No	Yes	Yes	30%	34%	25%	No	No	Yes
Site #12	6%	5%	14%	No	Yes	No	42%	48%	50%	No	No	Yes



2007 Employee Survey

- 75% saw the vending machine labels
- 57% took advantage of healthy food options
- 70% improved their eating habits
- Variation across sites but minimal among intervention groups

Sites	Site Missing	Moderate Intervention Sites					Intense Intervention Sites						Total
		Site #1	Site #2	Site #3	Site #4	Sub-total	Site #5	Site #6	Site #7	Site #8	Site #9	Sub-total	
Received/Saw Vending Machine Labels ¹	79.2%	92.3%	77.3%	63.0%	85.2%	77.4%	91.7%	64.9%	79.3%	66.7%	87.0%	73.8%	75.4%
Participation in Healthy Choice Food Options ¹	57.7%	78.6%	51.6%	50.0%	69.6%	57.5%	78.3%	44.3%	65.8%	47.7%	72.7%	56.6%	56.9%
Effect of Healthy Food Selection ²	3.5	3.5	3.5	3.6	3.8	3.6	3.9	3.7	3.7	3.9	3.9	3.8 [‡]	3.7
Helpfulness of Healthy Choice Food Options ³	4.1	3.9	4.0	3.9	4.1	4.0	4.3	4.1	4.1	4.1	4.6	4.2	4.1
Improved Daily Eating Habits in Past 12 Months ¹	21.4%	57.1%	71.2%	75.0%	85.2%	73.3%	62.5%	63.6%	73.2%	75.6%	87.0%	70.3%	69.7%

¹Data reflects the percent of respondents who answered "yes"

²Data reflects average score; 1-5 scale; 1 = very negative effect, 2 = negative effect, 3 = no effect, 4 = positive effect, 5 = very positive effect

³Data reflects average score; 1-5 scale; 1 = completely unhelpful, 2 = somewhat unhelpful, 3 = neither helpful or unhelpful, 4 somewhat helpful, 5 = very helpful

Healthy Choice Food Options includes vending, cafeteria, catering, and healthy cupboard interventions

[‡] Indicates significant difference (t-test; $p < 0.05$ level) between intense and moderate sites





Strengths, Weaknesses, and Potential Improvements



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Strengths

- Accessibility
- Implementation
- Labels
- Employee Satisfaction and Engagement

Opportunities and Challenges

- Vendor Contracts
- Stickers
- Consistency
- Time Constraints
- Economic Realities
- Consumer Expectations
- Site Specific Challenges

Potential Improvements

- Use Vendor Stickers
- Talk with Others
- Standardization
- Leadership Support
- Vendor Contracting and Management



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