Title of Intervention: The Exeter-Andover Project

Intervention Strategies: Campaigns and Promotions, Environments and Policies

Purpose of the Intervention: To promote preparation and consumption heart healthy meals

Population: Food service workers at schools, students

Setting: Two boarding schools in New Hampshire and Massachusetts; school-based, worksite-based

Partners: Schools

Intervention Description:

- Campaigns and Promotions: Posters indicating the sodium content of foods available in the dining hall were placed on tables.
- Environments and Policies: Training for the intervention program was directed at food service workers. Production staffs at each institution were taught to add 50-100% less salt when preparing all cooked foods, salad bar items and baked products. During the intervention, certain commercially available reduced-sodium products were purchased, including cheeses, processed meats, salad dressings and snack foods. High-sodium seasonings and flavorings such as soy sauce, Worcestershire sauce, ketchup and barbeque sauce used in recipes were decreased in amount. To enhance flavor, sodium-free spices and reduced-sodium condiments were utilized. Low-fat products were also purchased, including yogurt, cottage cheese, milk and luncheon meats. Vegetable oil and margarine high in polyunsaturated fatty acids were used in all cooking, baking, grilling and frying.

Theory: Not mentioned

Resources Required:

- Staff/Volunteers: Nutritionists
- Training: Not mentioned
- Technology: Computer and printer
- Space: Not mentioned
- Budget: Not mentioned
- Intervention: Posters, training aids, commercially available low-sodium and low-fat foods
- Evaluation: Survey, blood pressure measurement equipment, food diaries, nutritional analysis software

Evaluation:

- Design: Longitudinal cohort
- Methods and Measures:
    - Palatability surveys were conducted during the intervention to assess student acceptance of the modified foods
    - Students being monitored were asked to complete 24-hour food diaries
    - Student blood pressures were measured

Outcomes:

- Short Term Impact: The foods served during the reduced-sodium period contained half the sodium of regularly served foods. Results suggest that the intervention resulted in a mean decrease in sodium intake. During intervention years, systolic blood pressure decreased among males and in both systolic and diastolic blood pressures decreased among females.
- Long Term Impact: Not measured

Maintenance: Throughout each intervention, a nutritionist met regularly with food service management, production staff and line workers to monitor food production, discuss problems, update recipes, and make product substitutions.

Lessons Learned: Students food diaries indicate that the interventions produced large effects on the total intake of saturated and polyunsaturated fats. These studies have demonstrated that changes in food purchasing and preparation habits by food service workers in an institutional setting can lead to substantial changes in sodium and fat intake among students. The study indicated that modified foods are highly acceptable to students.

Citation(s):

Ellison, R. C., A. L. Capper, et al. (1989). "The environmental component: changing school food service to promote cardiovascular health." Health Educ Q 16(2): 285-97.

Ellison, R. C., A. L. Capper, et al. (1989). "Effects on blood pressure of a decrease in sodium use in institutional food preparation: the Exeter-Andover Project." J Clin Epidemiol 42(3): 201-8.

Witschi, J. C., R. C. Ellison, et al. (1985). "Dietary sodium reduction among students: feasibility and acceptance." J Am Diet Assoc 85(7): 816-21.