

Title of Intervention: LUNCHPOWER**Intervention Strategies:** Campaigns and Promotions, Group Education, Environments and Policies**Purpose of the Intervention:** To lower fat and sodium content of school lunches**Population:** Elementary school students in grades 1-6**Setting:** Rural and suburb public elementary schools in four Minnesota school districts; school-based**Partners:** University, the Child Nutrition Section of the Minnesota Department of Education, foodservice directors, registered dietitians, cook managers**Intervention Description:**

- **Campaigns and Promotions:** In each school district, the LUNCHPOWER program was promoted to the students, parents, teachers and school administration. A new menu format was introduced to each elementary school. The menus featured a LUNCHPOWER logo and lightning bolts that identified the fat and sodium reduced foods. Tips for lowering the fat and sodium in foods were provided on the back of menus for parents. A skill building game and rap/poem was included for the students. Students also received LUNCHPOWER magnets, which could be used to hang the school menu on their refrigerator at home. Each school developed a variety of promotions to create awareness and to encourage an atmosphere of fun and excitement for the students and staff.
- **Group Education:** A two-hour training session was held for cook managers and cooks in each school district. The session provided information on the LUNCHPOWER intervention, the cooks' role in the project and the importance of keeping to the established protocols. Methods for reducing fat and sodium in recipes and food preparation were taught. The cooks also received a manual, which served as a reference for information introduced in the training session.
- **Environments and Policies:** The foodservice directors in the school worked with their cook managers to identify current recipes. Nearly 200 lunch recipes were analyzed to determine fat, sodium and calories. Recipes that exceeded the nutrient criteria for fat and sodium were identified and modifications were made. Taste tests were conducted with students, foodservice staff and teachers to assess the acceptability of the modified foods. Seventy-five recipes were modified to reduce their fat and sodium content. During the first three months of the intervention the foodservice directors and registered dietitians worked together to plan the school lunch menus. Each foodservice director incorporated fat and sodium reduced products in the preparation of modified recipes of popular menu items. Foodservice directors also assessed vendor products for fat and sodium content. Products that exceeded the nutrient criteria were identified. Manufacturers were asked to provide alternative food products that were lower in fat and sodium and were responsive, whenever possible. Examples included reduced fat cheese and sausage pizza, chicken nuggets and French fried potatoes.

Theory: Social Marketing**Resources Required:**

- **Staff/Volunteers:** Food service director, cooks, registered dietitians
- **Training:** Not mentioned
- **Technology:** Nutrient database for recipe nutrient analysis, computers
- **Space:** Access to school kitchen
- **Budget:** Not mentioned
- **Intervention:** Updated lunch menus, magnets, manuals
- **Evaluation:** Lunch menu nutrient analysis

Evaluation:

- **Design:** Cohort, pre-/post-test
- **Methods and Measures:**
 - Monthly data were collected to assess recipe ingredients, vendor products, food preparation methods and food quantities served daily

- Daily menus were analyzed to determine fat, sodium and energy content

Outcomes:

- Short Term Impact: Not measured
- Long Term Impact: There was a significant decrease in both total grams of fat and percent of energy from fat consumed by children. Sodium content decreased, but not significantly.

Maintenance: Not mentioned

Lessons Learned: Because more than 24 million children participate in the National School Lunch Program, the school environment offers an ideal opportunity to modify dietary behaviors and promote healthful eating patterns. To establish healthful eating habits in children, well-designed nutrition education curricula that emphasize behavioral skills for planning, preparing, and selecting healthful foods must be incorporated. The school lunch program can complement and reinforce what is learned in the classroom and serve as the learning laboratory for nutrition education.

Citation(s):

Snyder, M. P., M. Story, et al. (1992). "Reducing fat and sodium in school lunch programs: the LUNCHPOWER! Intervention Study." J Am Diet Assoc 92(9): 1087-91.