The Situation
Research indicates that the diets of school-age children are inadequate. It is estimated that only 20% of school children consume the recommended servings of fruits and vegetables while 30% eat the recommended servings of grain and dairy. In fact, only 1-2% of children meet all the recommendations of the Food Guide Pyramid. Children who do not follow them are at a greater risk of becoming overweight/obese, developing heart disease, and diabetes.

Several ways to change children’s dietary habits include: (1) increasing their knowledge about nutrition; (2) having them develop food choice goals, and (3) determining home eating habits.

Our Response
Inputs – Martha Raidl, the Extension Nutrition Education Specialist, applied for and received Hatch funds from the Agricultural Experiment Station at the University of Idaho to work with the Idaho State Department of Education on: implementing a set of nutrition education materials called Team Nutrition in Idaho and developing a set of data collection sheets that measure knowledge, food choice goals, and determine home eating behaviors.

Step 1: Piloting the materials Eight Team Nutrition classes were piloted on 50 students enrolled in after school programs in Pocatello, ID. Based on data collected, revisions were made to the class activities and the data collection sheets.

Step 2: Testing the revised materials Five extension educators, 1 program coordinator, and 2 nutrition advisors taught the revised classes and collected the data.

Outputs:
Subjects: Initially the classes were taught to 273 children in 11 schools in Idaho but complete data sets were collected on approximately 100 children from 5 schools in Idaho.

Instructors: 5 extension educators, 2 program coordinators, 2 nutrition advisors.

The following eight Team Nutrition classes were taught:
• Roots and Things
• Grain Game
• What am I?
• Pyramid tracking/pyramid relay
• Line-em up
• Rainbow of Flavors
• Sandwich Sensations
• New Taste Sensations

Data Collection Sheets that were developed for these classes include:
• Food Goals
• Knowledge of food and nutrition
Program Outcomes

Food goals and healthy food choices – There was a relationship between students’ food goals and making healthy food choices. The students’ food goals were to: choose milk or juice over soda, have fruit for a snack, and decrease fat in the diet. After completing the classes, there was a significant increase in the number of healthy food choices made by students.

Food Guide Pyramid knowledge – Results indicate that students were knowledgeable about the Food Guide Pyramid. Eighty-eight percent were able to correctly classify foods into the appropriate food group.

Eating habits at home – Data was collected on fruit, vegetables and grain products consumed at home.

- Fruits consumed by 90-100% of children were: bananas, watermelon, grapes, strawberries, plums, oranges.
- Vegetables consumed by 70-80% of children were: cucumbers, carrots, and cauliflower.
- Grain products consumed by 90-100% of children were:
  - Grain products: graham crackers, bread rolls, whole wheat bread.
  - Corn products: tortilla, chips, popcorn.
  - Oat products: Cheerios, toasted oat cereal.

Relationship between foods consumed and food preferences – Constant exposure to a product does not mean children will necessarily like that product. Even though 90-100% of children ate bread rolls and whole wheat bread at home, only 70-80% said they liked these products.

Willingness to try unfamiliar products – Only 40% of children ate rice cakes and 8% ate rye crackers at home. However, 82% and 29%, respectively, stated that they enjoyed these products.

Applications

- Children will ask parents to purchase some of the fruits, vegetables, grains tasted in these classes.
- Educators can determine which foods children like/dislike by finding foods they consume at home and talk about foods children are familiar with.
- Encourage children to try new foods.
- School Food Service professionals can use this information to plan school meals to meet children’s preferences and improve nutritional intake.

Future plans

- Disseminate this information at the Priester Extension Health Conference 2002 Share Session May 8-10.
- Publish research results.

For More Information

Martha Raidl, PhD, RD
Extension Nutrition Education Specialist
University of Idaho Boise Center
800 Park Blvd, Suite 200
Boise, ID 83712
208-364-4056 (phone)
208-364-4035 (fax)
mraidl@uidaho.edu

Shelly Johnson, MS, Kootenai County Extension
Kris Spain, RD, Payette County Extension
Rhea Lanting, MS, Twin Falls County Extension
Cammie Jayo, Twin Falls County Extension
Audrey Liddil, MS, Bannock County Extension
Marnie Spencer, MS, RD, Bingham County Extension
Hydee Tubbs, Child Nutrition Specialist, Idaho State Department of Education
Seanne Safaii, Child Nutrition Specialist, Idaho State Department of Education.

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