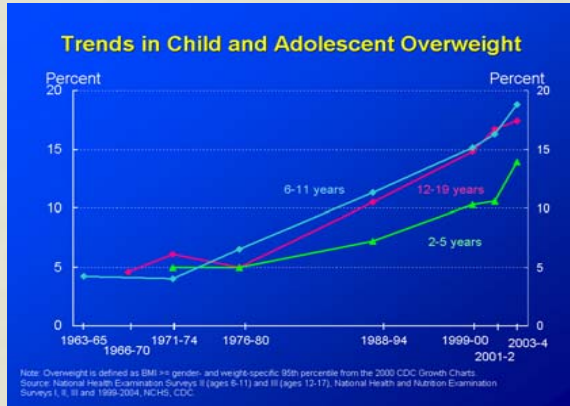


Schoolyard Garden Program to Increase Children's Fruit & Vegetable Consumption

Shelby Wilson, RD, LDN – Maternal and Child Health Program, University of Washington, Seattle

MCH Concern:

- In the past three decades, the percentage of overweight children and adolescents ages 2-19 years in the United States tripled, reaching 17.1% in 2003-04¹⁻⁴
- Overweight relates to chronic diseases in adulthood, including cardiovascular disease & diabetes¹⁻⁴
- Overweight etiology is multifactorial, making it a complex challenge for prevention^{5,6}



- The school environment has a vital role in shaping children's health behaviors⁴
- Children spend the majority of their day at school⁴
- The recent rise in obesity is accompanied by greater availability of high-fat and sugar-laden foods and beverages on school campuses⁴
- Almost 80% of school children do not consume the recommended 5 or more servings of fruits and vegetables per day¹
- Gardens provide a setting for learning about ecology and where food comes from⁷

Approach:

- This project will assess the efficacy of schoolyard garden programs in elementary schools
- Hypothesis: children who are engaged in a schoolyard garden program will have greater awareness of eating behavior, value of healthy foods, knowledge of the foods they've grown, and will have a higher mean daily consumption of fruits and vegetables than children who are not engaged in a schoolyard garden program.

Model: Social Cognitive Theory

Emphasizes individual, behavioral, and environmental factors that interact

- Individual: knowledge, values, and behaviors related to food choices
- Behavioral: experience in goal setting, skills development in food selection and preparation
- Environment: supportive of healthy eating by changing supplementary classroom curriculum, introducing new role models, demonstrating the selection, preparation, and taste-testing of fruits and vegetables, encouraging children to choose healthy foods

Study design: 3-year randomized controlled trial

Population: 3rd grade - 5th grade

Setting: Elementary schools in Seattle (5 intervention schools, 5 control schools)

Measurement outcomes: Food frequency questionnaires and 24-hour dietary recalls to establish mean fruit and vegetable consumption at baseline and endpoint

Intervention activities:

- Garden built & designed by students & staff
- Prizes for 5-a-day consumption of fruits & vegetables by students
- Students provide garden tours for their families
- Engage students in practical learning



Implications:

- School nutrition environments can be improved by implementing a nutrition education curriculum that includes hands-on learning in a schoolyard garden
- Schools contribute to current and life-long health and dietary patterns and are uniquely positioned to model and reinforce healthful eating behaviors to reduce risk of chronic disease in partnership with parents, teachers, and the community⁴

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