

### **P85 Imbalanced Food Group and Nutrient Intakes by Elementary School Children in an Affluent U.S. Community**

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**Objective:** To assess in an affluent community the food group and nutrient intake of elementary school-aged children and compare it with their school menus.

**Theory, Prior Research, Rationale:** Adequate nutrient status in childhood is critical for optimum health; however, communities with limited access to nutrient-dense foods struggle to provide children with adequate nutrients. The question arose whether access-rich communities struggle with similar problems.

**Study Design, Setting, Participants, and Intervention:** After informing students and parents about the study, Block Kids Food Screeners and blood vitamin D kits were sent to interested parents from public elementary schools in Corvallis, Oregon.

**Outcome, Measures and Analysis:** Food group and nutrient intakes were calculated from the Block Kids Food Screeners provided by 175 children and from school menus and compared to dietary guidelines. Vitamin D concentrations were quantified from 71 children. Age groups were compared using generalized linear models procedures.

**Results:** Most children reported a diet insufficient in fiber, essential fatty acids, potassium, and vitamin E and excessive in saturated fatty acids and sodium. Similar imbalances were observed in school meals, although school meals offered on average more nutrient-dense foods and beverages. The 9 to 11 year-old children consumed fewer dairy products and more potato and simple-carbohydrate foods and beverages than the 5 to 8 year-old children, contributing to lower blood vitamin D concentrations and fewer older children meeting dietary recommendations for calcium, fiber, linolenic acid, and phosphorus.

**Conclusions and Implications:** Our data indicate opportunities to improve dietary and nutrient intakes in elementary school children through school cafeteria and nutrition programs.

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### **P86 Attitudes of Elementary School Teachers and Cafeteria Personnel on Improving Students' Diets and Physical Activity Level**

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**Objective:** To identify attitudes and perceptions of elementary school teachers and cafeteria personnel on school nutrition and physical activity education for children.

**Theory, Prior Research, Rationale:** Schools are a promising ground for implementing nutrition and physical activity programs aimed to control nutrition-related health issues. Since teacher and cafeteria personnel are essential for implementing those programs, it is critical to identify their perceptions and attitudes on improving nutrition and physical activity education for children.

**Study Design, Setting, Participants, and Intervention:** Three mail surveys (1 nutrition and 1 physical activity education survey for classroom teacher and 1 nutrition education survey for cafeteria personnel) were sent to participating school districts across Oregon. Surveys were returned by 227 classroom teachers and 59 cafeteria personnel.

**Outcome, Measures and Analysis:** The questionnaires were specifically developed for each target group based on constructs of the Health Belief Model and analyzed using descriptive statistics.

**Results:** Teachers were concerned about students' eating habits (89%) and level of physical activity (85%) and were willing to incorporate nutrition education (55%) and physical activity (82%) into classroom activities as long as it did not interfere with the regular curriculum. Teachers favored multi-component programs for nutrition education which included parent participation (53%) and a school cafeteria component (70%); the latter was supported by school cafeteria personnel (78%).

**Conclusions and Implications:** Our results indicate that elementary school teacher and cafeteria personnel are interested in working together to improve students' diets and physical activity level through multi-faceted programs that include parent participation and accounts for limited resources.

**Funding:** None.

### **P87 Nutrient Intake of Infants and Toddlers: A Longitudinal View of Nutritional Adequacy**

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**Objective:** The purpose of this study is to describe nutrient intake from food, including breast milk and formula, in infants and toddlers, and identify deficiencies and excesses in the diet when compared to the Institute of Medicine's Dietary Reference Intakes (DRIs).

**Theory, Prior Research, Rationale:** The first 2 years of life are important to growth and development of children, but there is not much data available on this population. The Feeding Infants and Toddlers Study (2008) is a cross-sectional look at intake for children 0 to 48 months of age however there is no longitudinal view of infant and toddler nutritional sufficiency.

**Study Design, Setting, Participants, and Intervention:** This longitudinal cohort followed 60 infants and toddlers over 18 months.

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