

## Poster Session: Wellness and Public Health

### Child Care Nutrition Practices Differ Between Rural and Urban Alaskan Facilities

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**Learning Outcome:** Participants will be able to describe similarities and differences of nutrition practices in Alaska's rural and urban child-care facilities.

**Background:** Child-care facilities play a central role in child nutrition, but there is little research describing nutrition in Alaska's child-care settings.

**Research Outcome:** This cross-sectional study sought to explore child-care nutrition practices in Alaska by comparing self-reported adherence to recommendations for child nutrition between rural and urban facilities.

**Methods:** The 2013 Go Nutrition and Physical Activity Self-Assessment for Child Care (Go NAP SACC) was used to assess child-care nutrition practices. The survey was mailed to all licensed child-care facilities and Head Start programs in Alaska (n=668). The final response rate of 15.3% included 102 facilities (n=29 rural and 73 urban) which met eligibility criteria.

**Analysis:** Responses were scored as either meeting or not meeting each best practice recommendation and  $\chi^2$  analyses were used to detect significant differences between facilities in urban and rural areas.

**Results:** Significant differences were found for six items: rural facilities were less likely to have learning materials featuring unhealthy foods and less likely to have vending machines. Urban facilities were less likely to serve sweet or salty snacks outside of meal/snack times or require children to clean their plates; and more likely to use an authoritative feeding style and have comprehensive written nutrition policies.

**Conclusion:** This study provides baseline data for nutrition practices and policies in Alaska's child-care facilities. Rural and urban facilities differ in some areas of child nutrition, but statewide interventions should focus on the overall areas of weakness identified by this study: education/professional development and written nutrition policies.

**Funding Disclosure:** UAA Office of Undergraduate Research

### Differences in Dietary Intake and Physical Activity among Boys and Girls Club Members in Pitt County North Carolina

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**Learning Outcome:** The participant will be able to identify dietary and physical activities differences between Boys and Girls Clubs and discuss how current gardening and nutrition related programs may have positively impacted Boys & Girls Club members.

Reducing health disparities among minority and underserved children is a complex issue. Nutrition and physical activity assessment can inform health promotion interventions aimed at impacting these populations. Using a modified version of the School Physical Activity and Nutrition survey, researchers collected data from five Boys & Girls clubs in Pitt County, North Carolina (N=191). Researchers identified the clubs as Ayden, Jarvis, Minges, Farmville, and North Pitt. Respondents reported the number of times they consumed particular food items the day before. Descriptive statistics, box-plots used to visually assess differences, Mann-Whitney U, and Kruskal-Wallis tests were utilized to analyze the data. No significant differences ( $p < .05$ ) in dietary intake and physical activity were indicated between 4 of the 5 clubs. Ayden had significantly higher milk, bread, vegetables, and fruit intake in comparison to Farmville. Ayden also had significantly higher milk intake compared to Jarvis, and white bread and starchy vegetables intake compared to Minges. All clubs reported over consumption of processed/red meats (M=0.94, SD=1.10), fried foods (M=0.81, SD=1.28), cheese (M=1.23, SD=1.30), and chips (M=1.85, SD=1.59). Furthermore, participants reported a low consumption of fruits (M=1.56, SD=1.70), orange (M=0.60, SD=1.19), green (M=0.85, SD=1.26), and other (M=0.70, SD=1.23) vegetables. Differences between Ayden and the other clubs are likely explained by existing programs including gardening interventions and nutrition related programs within the clubs. Although Ayden demonstrates a higher intake of fruits and vegetables, their overall consumption of fatty foods were also higher. While data indicates numerous areas for potential interventions, interventions targeting reduced fat intake are warranted.

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### Commit to Health: A Nationwide Summer Camp Nutrition and Feeding Intervention Improves Nutrition Knowledge and Healthy Eating Behaviors of Children, Parents, and Staff

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**Learning Outcome:** Participants will be able to design and evaluate a nutrition literacy program that is integrated into a USDA Summer Feeding initiative aimed to alleviate hunger and improve eating habits of children attending summer camps.

**Background:** Park and recreation agencies (PRAs) are the health/wellness leaders in their communities. PRAs provide a safe place for children during summers, provide millions of nutritious meals, and teach children about eating healthily.

**Methods:** Commit to Health (C2H) interventions help PRAs provide nutritious meals, and implement nutrition standards and nutrition education. During the summer of 2014, C2H operated in 557 locations (~257,000 children grades K-6). An evaluation of impact included pre-June and post-August surveys of a nationwide representative sample including 426 children, 92 staff, and 116 parents.

**Results:** Results show significant improvements in nutrition knowledge and eating behaviors. Children: statistically significant improvements in correct responses regarding nutrition knowledge topics: main antioxidants/vitamins found in fruits/vegetables (14.8% to 34.0%, McNemar Test;  $p=0.000$ ), which type of cereal is best (57.7% to 72.3%;  $p=0.000$ ), type of food that is a protein (64.1% to 72.5%;  $p=0.000$ ), foods with most fiber (43.9% to 65.3%;  $p=0.000$ ), organ that regulates sugar (39.7% to 51.9%;  $p=0.002$ ). Child eating behavior improvement: increases in fruits (z-2.801;  $p=0.005$ ), bell peppers (z-2.483;  $p=0.013$ ), spinach, and low-fat dairy; decrease in consumption of sugary beverages. Parents: increases in consumption vegetables (z-score -2.22;  $p=0.026$ ), bell peppers (z-2.166;  $p=0.030$ ), spinach (z-3.213;  $p=0.001$ ), summer squash (z-2.867;  $p=0.004$ ), and fish (z-2.553;  $p=0.011$ ). Smaller increases in consumption of tropical fruits, stone fruits, and low-fat dairy. Staff reported similar increase in consumption of bell peppers, spinach, tropical fruits, stone fruits, summer squash, and lean proteins.

**Conclusion:** C2H shows child and adult healthy eating behaviors can be improved via summer camp programming.

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### The Impact of the Power of Produce (PoP Club) Program on Attitude and Fruit and Vegetable Consumption of Children Attending a Farmers Market

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**Learning Outcome:** Participants will describe the potential impact of the Power of Produce (PoP Club) program, a farmer's market incentive program for children, on the attitudes and fruit and vegetable consumption of children.

**Objective:** The purpose of this study was to determine the impact of the Power of Produce (PoP Club) program, a farmers market incentive program for children ages 5 through 12, on improving child engagement and family participation at farmers markets. It also explored the program's impact on improving fruit and vegetable (F&V) availability and F&V consumption of children at home.

**Design:** Cross-sectional study design. This study used an online posttest survey that was sent via email to parents/guardians of children enrolled in the PoP Club program in Maple Grove, MN.

**Setting:** A farmers market located in a suburban area in Minnesota.

**Subjects:** Parents/guardians (n=96) of PoP Club participants.

**Results:** After the PoP Club program, approximately 80% of respondents reported that their children enjoy the farmers market more, 75% reported that their children help them to choose the F&V they buy at the market more, 51% indicated that their children were trying more new F&V, 41% indicated that their children were eating more F&V at home, and 43.6% of families attended the farmers market more as a family. A significant, positive correlation was found between the weeks of participation in the PoP Club and children trying new F&V at home ( $r=0.224$ ,  $p=0.035$ ).

**Conclusion:** The PoP Club program helps to increase child engagement at farmers markets and encourages children to try new F&V. It also increases family participation at farmers markets and increases F&V availability at home. The PoP Club has potential for increasing the F&V consumption of children at home.

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