

### P2.03.29

#### OFFERING SALAD BARS INCREASED VEGETABLE VARIETY AND PREVALENCE OF 4TH-GRADE STUDENTS CHOOSING VEGETABLES AND DECREASED PLATE WASTE

**Smith S<sup>1</sup>**, Lohse B<sup>2</sup>, Cunningham-Sabo L<sup>1</sup>. <sup>1</sup>Colorado State University, Fort Collins, Colorado; <sup>2</sup>Rochester Institute of Technology, Rochester, New York.

**Purpose:** Most U.S. school-aged children do not meet federal dietary guidelines for fruit and vegetable (FV) intake. School cafeteria salad bars are proposed to increase students' lunch FV intake but evidence of their impact is inconsistent. We compared 4th-grade student FV selection, consumption, and plate waste between 2 school districts. One district served fresh FV from salad bars and the other served pre-portioned fresh FV. Both districts served pre-portioned hot vegetables from the tray line. **Methods:** Cross-sectional lunch plate waste collection occurred during fall of 4 successive school years. Before lunch, digital photographs were taken of all FV served. These "pre" photographs were compared to post consumption photographs of students' trays and FV waste estimated to the nearest 10%. Gram weight of FV wasted and consumed were calculated from percent waste and portion weights. Data were transformed for normality and district means compared using independent samples T-test. **Results:** Of trays photographed (n=995; 54% from males, 58% from salad bar district), 92% included fruit, 60% included vegetables. More than twice as many students with the salad bar option chose vegetables (n=421) compared to the pre-portioned option (n=182). Selection of hot vegetables from both districts remained low. Proportion of students choosing fruit was similar for both districts (90% salad bar; 95% pre-portioned). Students with the salad bar option chose smaller vegetable portions (61.7g vs.78.6g; p < .05). **Conclusions:** Findings of this study support salad bars over pre-portioned fruits and vegetables as a delivery option in school meal programs because more students chose vegetables, students chose a greater variety of vegetables and in a preferred portion size, and wasted less.