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grains, and soup. Among the unhealthy images, grains, sweets, meat/alternatives and sandwiches were most prominent. Dinner included the greatest number of posts overall (43.7% and 31.1%, healthy and unhealthy, respectively). Healthy food photos were more likely than unhealthy food photos to be posted at meals (85.4% vs. 64.1%). Snacking always was more likely to show unhealthy images, especially at afternoon snack (12.6% vs. 4.9%, unhealthy vs. healthy, respectively).

Conclusions and Implications: Evaluating Instagram posts is an interesting method to gauge college students' definition of healthy and unhealthy food. Students appear to post more "healthy" images at meal times while snack posts tend to show unhealthier items more frequently. Whether this corresponds to actual intake habits is unclear from this assessment.

Funding: None.

Food Science

P148 Culinary Training of School Food Service Workers with a Celebrity Chef

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Background (Background, Rationale, Prior Research, and/or Theory): Professional development to improve culinary skills, promote smarter lunchroom techniques (SL) and knowledge of 2015 Dietary Guidelines (DG) is suggested to help workers plan and prepare meals that are healthy and acceptable to students.

Objective: To examine satisfaction and perceived learning from professional development of culinary skills by a celebrity chef, promotion of whole fruits and under-consumed vegetable subgroups (UCVS), SL, foods to increase or decrease from DG, and plan and conduct event using training theme.

Study Design, Setting, Participants, Intervention: Nonexperimental, one group, post only, plan to recruit 90 foodservice workers to one of three regional trainings; participants were consented and completed an anonymous 18-item online Qualtrics survey after culinary training by chef in school cafeterias.

Outcome Measures and Analysis: Responses were analyzed descriptively for participant characteristics, satisfaction with professional development program, perceived learning, confidence with techniques, perceived knowledge, knowledge of DG messages, inspiration by significant referent, follow-up implementation of event with student reach.

Results: Recruitment was 67% of goal, 78% of registrants participated in training. Participants were women, including, 47% cafeteria managers, 32% foodservice directors, 17% food-prep cooks. Three-quarters reported learning helpful culinary techniques, ways to promote

UCVS, SL techniques, were confident with techniques and inspired by chef to use new techniques/recipes, with 78% overall satisfaction. All correctly listed one dark green vegetable, 87% listed two; 100% correctly listed two vegetables from red/orange vegetable subgroup, and >95% knew DG to limit saturated fat, trans fat, added sugars, and increase whole fruit, dark green vegetables, whole grains, beans/peas. Eighty-five percent knew to increase lower fat dairy foods. Only 13% created event based on training, but events reached 3,553 students.

Conclusions and Implications: Training by a celebrity chef was a popular venue for professional development; more recruitment efforts and follow-up with registrants to boost attendance, and follow-up with event planning might extend reach of the program.

Funding: USDA Team Nutrition.

Nutrition Across the Life Cycle

P149 Diet Quality in Children with Autism Spectrum Disorder

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Background (Background, Rationale, Prior Research, and/or Theory): Limited food repertoire is common in children with autism spectrum disorder (ASD). Previous studies reported an increased risk for certain micronutrient deficiencies and becoming overweight/obese in children with ASD. However, there is a lack of research assessing diet quality in this population.

Objective: This study aims to assess diet quality in children with ASD and compare it to typically developing children using nationally representative data.

Study Design, Setting, Participants, Intervention: A cross-sectional study with parents of 39 children aged 2 to 17 years with ASD in Florida was conducted.

Outcome Measures and Analysis: A 24-hour recall phone call was performed with each parent. Data were entered in ESHA Food Processor software. Diet quality was assessed using the Revised Children's Diet Quality Index (RC-DQI). Food group/nutrient quality sub-scores for grains, fruit, vegetables, dairy, excess juice, total fat, added sugar, and iron were calculated. Maximum score was either 5 or 10 for each sub-scale (higher number representing better quality). For children aged 2–5 years, data were compared to nationally representative data. Descriptive statistics and one-sample t-tests were performed.

Results: Overall diet quality score ranged 31–67 out of 70 total possible (mean = 49.5). For sub-scales, means were 4.0/5 for grains, 7.2/10 for fruit, 2.3/10 for vegetables, 4.8/10 for dairy, 8.9/10 for excess juice, 4.5/5 for total fat,

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9.9/10 for added sugar, and 8.0/10 for iron. Compared to typically developing children, preschool children with ASD had significantly lower grains (4.1 vs. 4.8, $P = .05$) and vegetables scores (2.0 vs. 6.9, $P < .001$), but more desirable added sugar scores (9.8 vs. 5.0, $P < .001$).

Conclusions and Implications: Further research is needed to determine factors associated with diet quality in children with ASD. Preschool-aged children with ASD may benefit from improving grain and vegetable intakes. Developing nutrition education programs focusing on diet quality for children with ASD is warranted.

Funding: University of South Florida.

P150 Dietary and Health Related Behaviors of WIC-Enrolled Pregnant Women

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Background (Background, Rationale, Prior Research, and/or Theory): Pregnancy is a critical period in a woman's lifecycle, during which good maternal nutrition can positively impact the health of both the mother and the fetus.

Objective: The objective of this study was to evaluate the effect of pregnancy on dietary and health related behaviors of WIC-enrolled women, the quantity of food consumed, and the perceived quality of the diet.

Study Design, Setting, Participants, Intervention: A cross-sectional study using a self-reported questionnaire was conducted. Sixty pregnant women between 12 and 24 weeks of gestation and carrying a single fetus were recruited from the WIC program at a community health center.

Outcome Measures and Analysis: The self-reported questionnaire consisted of open-ended questions that evaluated changes in participants' dietary and other health related behaviors, and frequency of consumption of foods from the different food groups before and after pregnancy. Demographic data were also collected. Descriptive statistics were used to compare changes in the frequency of consumption of specific foods (WIC allowable and others), and smoking habits before and after pregnancy. Responses to open-ended questions addressing changes in quantity and quality of the diet before and after pregnancy were analyzed qualitatively using content analysis.

Results: Sixty-seven percent of women reported experiencing morning sickness, and 60% stated that it affected their food intake. Despite this, 60% reported healthier eating behaviors, and higher average intakes of fruits, milk, and breakfast cereals. Twenty-two percent of participants stopped smoking.

Conclusions and Implications: Participants improved their food choices after becoming pregnant and

majority reported adopting healthier behaviors. This indicates that these women were committed to improving their health habits to ensure positive pregnancy outcomes. This shows pregnant women are a particularly receptive group for nutrition education interventions.

Funding: None.

P151 Early Adolescents Describe Their Evolving Food Routines Using Photo-Elicitation

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Background (Background, Rationale, Prior Research, and/or Theory): Early adolescence (ages 10–14) encompasses an important transition period with important biological, social, and psychological changes. Food and nutrition decisions can also be shifting in important ways because of the confluence of these transitions. Food routines are food-based activities that repeat across days, seasons, or lives. Examining routines can provide insight into how early adolescents are influenced and make food choices.

Objective: Explore current influences on and experiences with food routines during early adolescence.

Study Design, Setting, Participants, Intervention: Eligible participants were early adolescents enrolled in a public middle school at the time of study. In-depth interviews using a photo-elicitation approach and informed by the Food Choice Process Model were conducted with 25 students (14 F; 11 M) in urban and rural settings from Fall 2016–2017.

Outcome Measures and Analysis: Participants utilized their own photos during the interview to describe food-related decisions and influential factors in various contexts. Interviews were audio recorded and transcribed verbatim for thematic data analysis.

Results: Participants identified a wide range of eating routines. Some had very established routines throughout the week, while others described routines only for certain meals or days. Most described routines in relation to family schedules, while others identified increased time demands from recreation and homework as factors influencing their food routines. Some participants described increased agency or the ability to modify routines within their household around some eating episodes such as snacks, lunches, and weekend breakfasts.

Conclusions and Implications: Insights from youth revealed how they view eating routines and provided information about food-and nutrition-related behavior that may be modifiable for this age group. This information can be used by practitioners and researchers to better design efforts to improve the health and health trajectory of early adolescents.

Funding: USDA.