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perceived questionnaire items and to explore their personal experiences with FI. Interviews were recorded and transcribed verbatim. Two researchers used inductive open coding procedures to analyze interviews. Qualitative responses were compared to FI classifications derived from the questionnaire.

Results: Participants, on average, were 19.5 years old (± 1.2), predominantly female (70%), and 67% were classified as food insecure with the AFSSM. College students' interpretations of questionnaire items reflected their diverse personal experiences (familiarity with FI, familial economic hardships, etc). Confidence in response choices were complicated for students given the range of both formal and informal food and financial resources they had access to (university meal plans, support from social circles, savings, etc.). Among those reporting FI, consequences of and coping responses to perceived shortcomings in food were widely heterogeneous.

Conclusions and Implications: The results of this qualitative study provide indications that university students' perceptions of traditional FI assessment questions are influenced by their personal experiences and resources. Results indicate that future work should investigate modified FI classifications and assessment methods among university students to account for the nuanced perspectives in this sample.

Funding: USDA.

P174 Lessons Learned: Challenges of Nutrition-Related Outcome Evaluations in an Urban Farmers Market Intervention

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Background (Background, Rationale, Prior Research, and/or Theory): Research about the outcome measures of farmers markets' potential impact on improving access to and intake of fresh produce is limited.

Objective: To examine perceived barriers and fresh produce intake-related behaviors among customers at the beginning and after implementation of a farmers' market.

Study Design, Setting, Participants, Intervention: Face-to-face surveys were conducted in a convenience sample of adult customers at the beginning of a new farmers' market (T1 $n = 129$) in urban New Brunswick, NJ, in summer of 2009. Multi-year follow up surveys were conducted in fall (end of market season) of 2015 (T2 $n = 73$), 2016 (T3 $n = 142$), and 2017 (T4 $n = 99$).

Outcome Measures and Analysis: Demographic characteristics, 11-item perceived barriers scale for fruits and vegetables, vegetable intake frequency. Descriptive statistics, Chi Square, independent samples t - and Mann-Whitney U tests were used for analyses.

Results: Participants were racially and ethnically diverse. For example, for T1 vs. T4, 31.0% vs. 23.2% were Hispanic, 17.8% vs. 14.1% were Black, 41.9% vs. 47.5% were White; about 28.7% vs. 21.2% reported having less than college education. Majority of participants at T4 used the market for less than three years. About 39.5% (T1) vs. 32.3% (T4) of the participants reported experiencing two or more barriers to eating fruits or vegetables ($P = .262$). The specific barrier of lacking variety of fruits and vegetables in the area stores was reported by more participants at T1 vs. T4 (32.3% vs. 19.2%, $P = .028$). Mean vegetable intake ranged from 2.6 ± 1.9 (T1) to 2.1 ± 1.2 times/d (T4) ($P = .131$).

Conclusions and Implications: Transient nature or self-selection of market customers and seasonality can challenge the efforts to measure longitudinal and individual behavioral changes in urban farmers market settings. Perceived barriers can be a viable proxy, and additional environmental assessments might be needed to differentiate the potential effects of a farmers' market and other environmental changes.

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P175 MassCAMPS: A National Training Model

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Objective: To offer Child and Adult Care Food Program (CACFP) sponsors and providers with free training and assistance to create and maintain a healthier childcare environment in line with the Healthy Hunger-Free Kids Act of 2010.

Target Audience: Massachusetts early education professionals participating in the CACFP.

Theory, Prior Research, Rationale: A needs assessment revealed a knowledge gap on how to prepare, serve, and convey the importance of healthy foods in the CACFP. Additionally, completion of professional development hours each year are required for CACFP certification. Adult learning theory was used to design a complete set of interactive online and engaging in-person trainings to meet the needs of early education professionals.

Description: The MassCAMPS (Massachusetts Children's Access to Meals Planned Smart) team developed the project components over a 1.5 year period. Components included: an online course containing six modules; five in-person train-the-trainer sessions incorporating the Growing Healthy Habits training manual; two live culinary demonstrations; a 15-minute culinary video; and a webpage to host all materials. A total of 1,589 CACFP

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sponsors and providers from Massachusetts participated during the intervention period (January–August, 2017). Formative and summative evaluation tools were used to measure the effectiveness of each training. Pre- and post-tests assessed the outcomes of the online course.

Evaluation: Evaluations of the online course, train-the-trainer sessions, and live culinary demonstrations indicate that nearly all ($\geq 92\%$) participants met the learning objectives, found the trainings useful, and could apply to their jobs. The online course post-quiz scores improved 11.2 points, a statistically significant ($P < .05$) difference over pre-quiz scores.

Conclusions and Implications: The innovative design of the MassCAMPs components provided CACFP sponsors and providers with professional development that led to increased knowledge that was applicable to their programs. This highly acclaimed suite of resources continues to serve as a valued online resource to early education professionals participating in CACFP across Massachusetts and nationally.

Funding: USDA Team Nutrition.

P176 Measuring Feeding Practices in Early Care and Education: Development of Direct and Indirect Approaches

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Background (Background, Rationale, Prior Research, and/or Theory): Early Care and Education Teachers (ECETs) engage in feeding children up to two thirds of their dietary intake. However, there is limited research on the development and validation of measures to assess ECET feeding.

Objective: This study presents the process for developing and establishing psychometrics for both an observational and self-report assessment of feeding practices of ECETs. Additionally, this study will present a comparison of the measures among a sub-sample.

Study Design, Setting, Participants, Intervention: Teachers in 2 southern states participated in mealtime observations by using the Table Talk tool ($N = 75$) and self-reports of feeding practices ($N = 633$) on adapted questions from the Child Feeding Questionnaire and the Child Feeding Styles Questionnaire (combined and named the Educator Feeding Survey, EFS). A sub-sample participated in both Table Talk and EFS ($N = 48$). All observers for Table Talk exhibited 85% reliability with a gold standard observer.

Outcome Measures and Analysis: Descriptive statistics summarized the feeding communications captured by Table Talk. For the EFS, analysts compared internal consistency values, means, and ranges to published values of the scales and items in parent samples. Pearson correlations examined associations between Table Talk and EFS scores.

Results: Table Talk documented that ECETs used an average of 8.7 supportive communications and 8.5 unsupportive communications per meal. All EFS scales exhibited similar means, standard deviations, ranges and internal consistency values (>0.70) to published standards. The EFS scale indicated child-centered strategies was marginally associated with both the Table Talk supportive ($r = 0.27$, $P = .06$) and unsupportive communication scores ($r = -0.25$, $P = .097$).

Conclusions and Implications: Both direct and indirect measures provide potential value for assessing ECE feeding practices. However, lack of stronger convergence between measures suggests a need for further study to provide guidance for selection of a direct or indirect assessment of ECET feeding.

Funding: NIH, USDA.

P177 North Carolina Family and Consumer Sciences Teachers' Infant Feeding Education Practices and Attitudes: A Mixed Methods Study

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Background (Background, Rationale, Prior Research, and/or Theory): Despite recommendations by the World Health Organization and UNICEF UK to include infant feeding education in secondary school classrooms, the views and practices of educators regarding this topic have been studied minimally.

Objective: To explore North Carolina (NC) family and consumer sciences (FCS) teachers' infant feeding education practices and attitudes.

Study Design, Setting, Participants, Intervention: Using a sequential mixed methods design, researchers conducted interviews and a statewide survey with current NC FCS teachers. The qualitative phase consisted of a purposive sample of 19 teachers. The survey was completed by a convenience sample of 137 teachers.

Outcome Measures and Analysis: Semi-structured telephone interviews explored teachers' current infant feeding education practices and their views on incorporating breastfeeding education in FCS classrooms. Transcripts were analyzed using the constant comparative method. Researchers developed a valid and reliable 33-item survey to assess FCS teacher attitudes and practices. Descriptive statistics were conducted for all measures using SPSS.

Results: The majority of NC FCS teachers are supportive of including infant feeding (86.9%) and breastfeeding (84.7%) education in high school. Approximately half agreed with including infant feeding (51.9%) and breastfeeding (46.7%) content in middle school. Teachers reported teaching about infant feeding in both middle

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