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larger scale. Guidance and training of allowable, effective strategies for collaboration are needed to change implementer perceptions.

Funding: SNAP-Ed.

P192 Use of a Validated Nutrition Literacy Assessment Tool for Determining Training Needs for SNAP-Ed Paraprofessional Staff

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Background: Nutrition education best practices emphasize using paraprofessional staff who relate to the target audience as a strategy for reaching under-served populations. These staff must possess adequate nutrition literacy to teach nutrition skills to participants. This peer educator model results in a workforce with less formal education, resulting in increased training needs, as research has shown significant positive relationships between education level and nutrition literacy.

Objective: Determine nutrition literacy levels of SNAP-Ed paraprofessional staff using a validated tool (NLit) to observe training needs.

Study Design, Setting, Participants: Cross-sectional survey of SNAP-Ed staff (n = 60) in Illinois using NLit and demographic questionnaire.

Measurable Outcome/Analysis: Literacy scores were calculated and categorized based on NLit's scoring interpretation: likelihood of poor nutrition literacy (level 1), possibility of poor nutrition literacy (level 2), and likelihood of good nutrition literacy (level 3). Differences in scores by education and experience were measured using Kruskal Wallis tests.

Results: Eighty percent of staff received a level 3 score on the NLit, indicating likelihood of good nutrition literacy. No staff received a level 1 score. Education ranged from completed grade 12 (5%) to post-graduate degree (15%), with the largest group having graduated a 4-year college (45%). SNAP-Ed experience ranged < 1 year (15%) to > 21 years (2%), with the largest group having 1-5 years of experience (42%). There were no differences in NLit scores based on education ($P = .23$) or years of SNAP-Ed experience ($P = .15$).

Conclusion: In this sample of trained SNAP-Ed paraprofessional staff, a majority had a high likelihood of good nutrition literacy. Thus, the current training provided is adequate to overcome barriers of less formal education. Although no knowledge gaps were identified for existing staff, future research will explore using NLit to assess nutrition literacy of new staff at time of hire, allowing the ability to track literacy gains over time and assess training effectiveness.

Funding: SNAP-Ed.

P193 Using Behavioral Design to Increase Healthier Food Choices: Food Service Staff's Views on Feasibility

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Background: Increasing obesity rates among US active duty military is considered a security threat to readiness, with \$3.3 billion per year spent in attributable health care costs among active duty personnel and military families. Several Army food service venues have implemented behavioral design strategies to shift patrons' food choices towards healthier options. However, little is known about implementation feasibility and sustainability.

Objective: To assess food service staff's perceptions on the feasibility of a behavioral design intervention promoting healthier food choices in a US Army hospital cafeteria.

Study Design, Settings, Participants: From August to December 2017, an Army hospital cafeteria implemented ten behavioral design strategies, including color-coded labeling, prominent placement of healthier items, provision of fruit baskets, and daily "performance" plates. Nine in-depth, semi-structured interviews were conducted with staff post-intervention.

Measurable Outcome/Analysis: Interviews were audio-recorded and transcribed verbatim. Braun & Clarke's Six Steps of Thematic Analysis was used to identify deductive and emergent themes of intervention feasibility in the transcripts.

Results: Four a priori, deductive themes on feasibility were identified: acceptability, operability, sustainability, and effectiveness. Five themes emerged from the data: cafeteria ethos, buy-in, unintended consequences, food options, and factors influencing customers' food decisions. Staff perceived the intervention as operable and slightly effective in improving food choices, but also perceived that the increase in healthier meal choices led to increased food waste and institutional financial loss. Staff expressed a desire for involvement in behavioral design strategy selection and for food production forecasts to reflect anticipated demand fluctuations.

Conclusion: Public health practitioners should consider diversifying staff representation when developing behavioral design interventions to increase buy-in and to accommodate venue-specific nuances.

Funding: None.

P194 Validity and Reliability of Knowledge, Attitude, Perception and Behaviors on Healthy Feeding in School-Age Children in Panama

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Background: Given the growing problem of overweight among school-aged children in Panama, understanding their food related knowledge, attitudes, perceptions and behaviors (KAPB) through valid, reliable and culturally appropriate instruments is critical in addressing in a more comprehensive way the obesity epidemic.

Objective: To describe the development and validation of an instrument to assess food related KAPB in school children in Panama, which used as a conceptual foundation the recent national Food Based Dietary Guidelines (FBDGs).

Study Design, Settings, Participants: The instrument development and validation consisted on the following three-stage process: conceptualization and construction of the instrument, primarily based on the Panamá FBDGs; expert reviews ($n=6$); and psychometric testing, including internal consistency and confirmatory factor analysis. For the psychometric testing, the sample size included 248 school-age children of 7-13 years old, from five elementary schools in Panama West Province.

Measurable Outcome/Analysis: A valid, reliable and culturally appropriate instrument to assess healthy eating related KAPB in school-children in Panama.

Results: The adequacy of the sample was acceptable of 0.8052, determined by The Kaiser-Meyer-Olkin index. The CFA yield four factors related to healthy eating habits and lifestyles, with good internal consistency (Cronbach alpha > 0.5).

Conclusion: This study provides a tested instrument, with acceptable psychometric properties, which can be potentially used to measure healthy eating habits and lifestyles in school-age children in Panama within the context of multi-sectoral childhood obesity prevention programs.

Funding: UNFAO.

Nutrition Education Research Methods

P195 A Cross-Sectional Study Examining School Meal Component Selection and Consumption by Gender

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Background: The National School Lunch Program (NSLP) reaches over 30.4 million children every school

day and can provide roughly one-third of a child's daily energy intake. Understanding the relationship between student characteristics and meal component selection and consumption is critical to mitigating food waste and improving children's eating behaviors.

Objective: To examine the prevalence of key systems factors, such as time available for lunch and recess timing, and the impact of demographic factors on meal component selection and consumption among children in rural and urban school districts in Illinois.

Study Design, Settings, Participants: This cross-sectional study examined meal component selection and consumption at four schools throughout central and southern Illinois participating in the NSLP. Selection and consumption data of Kindergarten through 8th-grade students ($n=302$) were collected once per school using visual observation to assess selection and individual direct weighing to assess consumption.

Measurable Outcome/Analysis: Descriptive statistics and t-tests were used to characterize the study sample and investigate relationships between gender, meal component selection, and consumption.

Results: Study participants were 55% male and 45% female. All schools had recess after lunch periods, except for one kindergarten class, with an average lunch period lasting 24 minutes. Sixty percent of the schools implemented offer vs. serve. Sixty-seven percent of the sample selected flavored milk over white milk; however, gender was not significantly associated with flavored milk selection nor milk consumption ($P = .46$ and $.16$, respectively). Differences in flavored and white milk consumption were assessed (mean = 187.6 and 148.4 ml, respectively), and participants consumed significantly more flavored milk ($P < .001$).

Conclusion: An in-depth understanding of factors relating to children's choices and eating behaviors in the school setting can inform cost-effective school nutrition interventions. Results from this study indicate that interventions can be designed to influence more healthful selection or encourage consumption that minimizes food waste.

Funding: None.

P196 Chat with WIC: Innovating WIC Services with a Chatbot

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Background: WIC serves low income pregnant, postpartum, and breastfeeding women and infants and children at nutritional risk by providing food packages and nutrition education. Texas WIC enrollment has declined by 24.1% since 2015. By offering continual availability to answer questions regarding eligibility and schedule appointments, an online chatbot has potential to improve enrollment and retention.

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