

P40 (continued)

**Theory, Prior Research, Rationale:** Lack of resource management skills is associated with greater food insecurity in low-income populations. The University of California CalFresh Nutrition Education Program implemented the 4-lesson PSSC program in 2011-12 to improve food resource management while making healthful choices in Supplemental Nutrition Assistance Program Education (SNAP-Ed) adults.

**Description:** At enrollment (pre) and 1 month later (post), PSSC participants completed a 6-item food behavior survey, indicating the frequency (0=never to 4=always) of planning meals, using a list, comparing prices, reading labels, thinking about healthy choices, and eating varied meals. They also completed one item related to food insecurity (running out of food, 0=never to 4=always).

**Evaluation:** The percent of participants reporting improvements in food behaviors ranged from 54% in reading labels to 35% in comparing prices. Before PSSC, food behaviors and food security did not differ among SNAP recipients (n=866) and SNAP-eligible nonrecipients (nonSNAP, n=506). Greater pre-post change in mean (SD) food behavior scores was observed in nonSNAP compared to SNAP participants [+4.5(3.8) vs. +3.9(3.7),  $p < 0.02$  Wilcoxon test]. However, pre-post change in the six food behaviors was correlated with greater food security only in SNAP participants (Pearson's correlation coefficient  $r=0.17$ ,  $p < 0.0001$ ).

**Conclusions and Implications:** Statewide evaluation can be useful in refining messages for different audiences in the SNAP-Ed program.

**Funding:** Supplemental Nutrition Assistance Program – Education, University of California CalFresh.

### P41 Prioritizing Food Group Messages: Topics with Most Potential for Improved Consumer Behavior

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**Objective:** To identify educational messages that may have the most potential for improved consumer behavior, based on current consumption practices in relation to dietary recommendations.

**Target audience:** Nutrition educators and their clientele.

**Theory, Prior Research, Rationale:** This analysis builds on prior studies that identified food group intakes in comparison to recommendations and intakes of nutrient-dense versus typically consumed foods.

**Description:** The 2010 Dietary Guidelines encourages increasing consumption of underconsumed food groups and choosing foods in nutrient-dense forms. These recommendations can lead to numerous educational messages for consumers, which may be overwhelming. For each food group, this analysis compared intakes to recommendations

and nutrient-dense to typical food choices, to determine where consumer choices differ most from the ideal and which messages provide the most opportunity for improving behavior.

**Evaluation:** For fruits, dark green vegetables, beans and peas, whole grains, and seafood, the difference between intake and recommendations is greater than the difference between nutrient-dense and typical choices. Therefore, priority messages should focus on how to increase intake. For starchy vegetables, meat, and poultry, priority messages should focus on how to select these foods in more nutrient-dense forms. For dairy products and red and orange vegetables, both increased intake and making nutrient-dense choices are important messages.

**Conclusions and Implications:** Prioritizing messages on which to focus may help consumers feel less overwhelmed with all of the nutrition messages they hear. This analysis provided an objective method for selecting a message for each food group that may have the most likelihood of making a difference, by allowing consumers to focus on fewer behaviors for improvement.

**Funding:** Centers for Disease Control and Prevention.

### P42 Nudging Students towards Healthful Choices through Education Enhanced by Environmental Cues

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**Objective:** To influence student fruit and vegetable choices through 4th and 5th grade classroom nutrition education integrated with cafeteria nudge marketing and choice architecture.

**Target audience:** 4th and 5th grade students, teachers, cafeteria staff.

**Theory, Prior Research, Rationale:** Social marketing and learning; behavioral economics.

**Description:** Over the 2011-2012 school year, 34 Maryland schools in 6 school systems participated in Project Re-Fresh, an integrated classroom education and cafeteria improvement program to increase student fruit and vegetable choices. School foodservice staff collaborated with University of Maryland Extension educators to create and implement comprehensive, relatively low cost changes in school cafeterias. Cafeteria nudges, the environmental cues or structuring to influence behavior, were unique to individual schools and districts, yet easily replicable, and coordinated with monthly 4th and 5th grade ReFresh curricular lessons when feasible. Some schools served as controls, others as either a cafeteria only or cafeteria and classroom intervention.

**Evaluation:** Analysis of cafeteria production records indicates that offering students more variety of fruits and

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vegetables, in addition to implementing Project ReFresh activities, may increase their selection of these foods. Based on student pre/post survey responses, fewer students receiving classroom education and cafeteria nudges consumed no fruit or vegetable the previous day, as compared to students who received no education or cafeteria only intervention.

**Conclusions and Implications:** Engaging and empowering foodservice staff on design and implementation of simple strategies for promoting fruits and vegetables can influence students to choose more of them. Integrating classroom nutrition education and cafeteria within the school environment may improve student fruit and vegetable consumption.

**Funding:** USDA Team Nutrition, USDA SNAP-Ed in cooperation with Maryland Department of Human Resources, University of Maryland.

### P43 Integrating Pacific Cultural Concepts into the Introductory Nutrition Curriculum: The Children's Healthy Living Program (CHL)

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**Objective:** To evaluate online methods for integrating food, culture, and environmental concepts from the U.S. Affiliated Pacific (UAP) into an introductory nutrition course at the University of Hawaii at Manoa (UHM) that has a foundation in traditional nutrition curriculum (e.g., concepts in a basic nutrition textbook).

**Target audience:** Students enrolled in the UHM introductory nutrition course which includes UAP residents.

**Theory, Prior Research, Rationale:** In the UAP there is a lack of nutrition trained professionals to adequately address the high non-communicable (chronic) diseases rates. An introductory nutrition course at UHM that integrates concepts of the UAP may enhance comprehension, applicability, and interest in the course material.

**Description:** Multiple methods for integrating UAP concepts included piloting weekly online discussion questions that address UAP food related issues in a previous semester of the course. Previous students of the introductory nutrition course at UHM as well as informants from across the UAP are being surveyed for their perceptions on the how to integrate UAP concepts into the course. Supplementary materials highlighting a wide range of foods unique to the UAP are also being developed to enhance learning objectives.

**Evaluation:** Student performance evaluations from the first offering of the course (Fall 2013) will be used to evaluate success in learning outcomes and suggest areas for continued cultural adaptation.

**Conclusions and Implications:** The online platform of the introductory nutrition class has potential for wide dissemination across the region where there is currently a nutrition education shortage. Course development needs to maintain a focus on sustainability and integration into other efforts in the UAP to enhance nutrition capacity.

**Funding:** USDA 2011-68001-30335.

### P44 Estudiante de Dietetico: Dietetics Undergraduate Curriculum and Mentoring Program

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**Objective:** Estudiante de Dietetico is a curriculum designed to improve the cultural competence, confidence and Spanish skills of undergraduate dietetic students to provide more culturally sensitive nutrition services for the Latino community and decrease health disparities.

**Target audience:** Four cohorts have been recruited totaling 95 undergraduate dietetic students.

**Theory, Prior Research, Rationale:** The nutritional health of Hispanics is of particular importance because Hispanics are the fastest growing minority in the United States. According to the U.S. Census Bureau, the Hispanic population in 2006 was over 44 million, comprising more than 14% of the US total population (U.S. Census Bureau, 2006).

**Description:** This curriculum consists of 6 1-unit courses that mirror the dietetics curriculum along with intermediate level of Spanish language attainment. Two cohorts of students (n= 54) have completed the curriculum and 24 completed the concurrent extra mentoring program. The mentoring program was based on Tinto's Theory of Student Retention and included 4 components: Retention Coordinator, workshops, mentoring/shadowing nutrition professional and social events to foster group cohesion.

**Evaluation:** Students provided feedback on the curriculum and mentoring program in journal and interview formats. Students report a greater of understanding of cultural competency, great satisfaction with the curriculum and the mentoring program commenting that, "the social events that included and recognized family members really meant allot." Many expressed gratitude for this opportunity.

**Conclusions and Implications:** This curriculum and mentoring program appear to be a promising way to improve the ability of the students to better serve the Hispanic population and to improve their educational experience.

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