O5 (continued)

examination trial. One group of the participants tracked intake using mobile app. Another group of the participants tracked intake using a traditional paper-and-pencil method.

Evaluation: App users ($n = 25$) recorded dietary data more consistently compared with the paper-and-pencil group ($n = 20$). All groups lost weight over the course of the study ($P = .001$), and healthy eating were significantly improved for the mobile app group.

Conclusions and Implications: Mobile app and technology could represent a novel and feasible healthy eating behavior modification for individuals.

Funding: None

O6 Effects of a Nutrition Education Intervention on Maternal Nutrition Knowledge, Child Care Practices and Nutrition Status

Teresia Mbogori, MS, Texas Tech University, 5525 34th Street, Apartment B, Lubbock, TX 79407; M. Murimi, PhD, RD

Objective: The objective was to determine the effect of a nutrition education intervention on maternal nutrition knowledge, child care practices, dietary intake and nutrition status of children.

Design, Setting, and Participants: The study was conducted in Turkana, Kenya where 73 mothers with at least 1 child 5 years or younger were randomly selected to participate. Mothers were trained for 5 days by the researchers and trained community health workers from the village. Training sessions included lectures and hands on demonstrations on breastfeeding, complementary feeding, hygiene and sanitation.

Outcome, Measures and Analysis: Nutrition knowledge and child care practices were assessed using validated questionnaires, a 24 hour food recall questionnaire was used assess dietary intake and nutrition status was determined using weight and height. Paired test and McNemar tests were used to determine the effect of the intervention. Data was collected at baseline ($n=73$) and at follow-up 6 months later ($n=57$).

Evaluation: At follow-up, maternal knowledge on ideal quality of complementary foods and on how to feed a sick child increased by 61.4% ($P=0.01$) and 31.6% ($P=0.01$) respectively. Knowledge on breastfeeding did not change as it was already high at baseline. More mothers gave de-worming medications (25.1%; $P=0.01$) as well as nutrition supplements and immunizations. Incidences of respiratory tract infections reduced by 27% ($P=0.03$), Dietary intake, except for calcium (increased by 103mg $P=0.001$), and child nutrition status did not change significantly.

Conclusions and Implications: Results of this study indicate that a demonstration based nutrition education intervention can improve maternal knowledge and child care practices but additional strategies focused on

improving food security would be necessary to improve dietary intake and nutrition status of children.

Funding: None

O7 Factors Influencing Nutritional Risk Among Congregate Meal Participants

Catherine Lillehoj, PhD, Iowa Department of Public Health, 321 East 12th Street, Des Moines, IA 50319; S. Francis, PhD, MHS, RD, Iowa State University; D. Montgomery, MS, RD, LD, Iowa Department of Public Health; C. Russell, MS, RDN, LDN, Iowa Department on Aging; M. Shelley, PhD, Iowa State University; L. Yap, RDN

Objective: Improving nutrition status among older adults is a critical issue in many U.S. communities. This study assessed the impact of food security (FS), healthy eating self-efficacy, and self-reported health on nutritional risk (NR) among congregate mealsite participants.

Design, Setting, and Participants: A convenience sample of 720 older adults from 67 congregate mealsites in a Midwest state participated.

Outcome Measures and Analysis: Participants completed a five-item healthy eating self-efficacy scale, the U.S. Household Food Security Survey: Six-Item Short Form, and the Dietary Screening Tool (nutritional risk). Participants provided demographic information including education, marital status, gender, age, and self-reported health status.

Evaluation: Participants were mostly high-school educated, widowed, food secure, White females who reported being in "somewhat good to very good health." The majority (88.3%) were categorized as "at possible NR" or "at NR." Of these, 92.0% and 90.0% were classified as having "low FS" and "very low food FS" respectively ($p=.129$). A majority of those "at possible NR" (40.3%) or "at NR" (57%) reported "average or somewhat/very poor" health ($p=.004$). A stepwise multiple regression predicted NR from gender, age, education, self-reported health status, healthy eating self-efficacy, and FS. Commonly reported NR predictors (i.e. health status, education, age) predicted 10% of NR ($F(5,556)=15.25$, $p<.0005$, $r^2=.10$). When self-efficacy was added to the model, predictability increased to 15% ($F(6, 555)=19.45$, $p<.0005$, $r^2=.15$).

Conclusions and Implications: Findings suggest that healthy eating self-efficacy is an important factor to consider for NR reduction. Future NR reduction programs should not only address dietary behaviors but also provide activities that will help older adults strengthen healthy eating self-efficacy.

Funding: Supplemental Nutrition Assistance Program - Education

O8 Family Meals and Mental Health Indicators of Adolescents: Findings From a National Study

Jennifer Utter, PhD, University of Auckland, Private Bag 92019, Auckland, New Zealand; S. Denny, PhD; E. Moselen

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O8 (continued)

Objective: Family meals are associated with better adolescent nutrition and general wellbeing. However, few studies have examined the relationship between family meals and adolescent mental health, using validated measures of both positive and negative affect. The current study describes the relationship between family meals and adolescent mental health and determines if the relationship differs by sex.

Design, Setting, and Participants: Data were collected as part of Youth'12, a nationally representative health and wellbeing survey. In total, 8,500 adolescents in New Zealand completed the survey in 2012.

Outcome Measures and Analysis: Mental health was measured using previously validated instruments, including the Reynolds Adolescent Depression Scale, the Strengths and Difficulties Questionnaire and the World Health Organization Wellbeing Index. Multiple regression models determined the relationships between family meals and the mental health indicators, with age, sex, ethnicity, small area deprivation, and household poverty included as covariates. Results were considered significant at $p < 0.05$.

Evaluation: Approximately 60% of adolescents shared family meals five or more times in the previous week, while 22% reported that they shared fewer than 2 meals in the previous week. Greater frequency of family meals was associated with fewer depressive symptoms ($p < 0.001$), fewer emotional difficulties ($p < 0.001$) and better emotional wellbeing ($p < 0.001$). These relationships differed by sex, such that the relationships were stronger for females than males.

Conclusions and Implications: Frequent family meals may have a protective effect on the mental health of adolescents, particularly for girls. Interventions that aim to increase the frequency of family meals are needed to evaluate if family meals alone can have an emotional benefit for adolescents.

Funding: None

O9 What Factors Increase Risk for Food Insecurity Among College Students?

Suzanna Martinez, PhD, MS, Nutrition Policy Institute, University of California Division of Agriculture and Natural Resources, 1111 Franklin Street, 10th Floor, Oakland, CA 94607; E. Brown, BA, University of California Berkeley; L. Ritchie, PhD, RD, University of California

Objective: Food insecurity (FI) among college students is concerning, yet studies of FI are limited within this population. Therefore, this study aimed to describe risk factors for FI among college students in California.

Design, Setting, and Participants: This was a cross-sectional study conducted in spring 2015 in a California university system. Randomly sampled students (undergraduate and graduate) were sent an email request to participate in an online survey: the USDA 6-item

FI module added to the National College Health Assessment survey (administered on four campuses), or an independent campus survey (administered on six campuses). Survey topics included FI, food access, campus resource use, and socio-demographic information.

Outcome Measures and Analysis: The dependent variable is FI. Summary statistics and chi-square tests were conducted ($p < .05$). Logistic regression will be used to identify FI correlates.

Results: A total of 8,932 students participated in the survey (14% response rate). Students were 31% white, 21% Hispanic, 2% black, and 34% Asian, and 18-24 yo (76%). FI was within the range (25-60%) reported by other U.S. studies. Compared to food-secure students, food-insecure students were more likely to be of a minority background (64% vs. 48%), undergraduate (79% vs. 21%), food insecure as children (45% vs. 9%), have suspended studies due to financial constraints (15% vs. 3%), eat fast food (9% vs. 20%), and wanted campus resource information about food access (47% vs. 25%).

Conclusions and Implications: Findings support that food insecurity among students in a California university system is higher than the national household prevalence (14%). Understanding risk factors will help to identify students who are at risk for FI and target increased program and policy supports to address FI.

Funding: University of California

O10 Association of Sugar-Sweetened Beverage Intake Frequency and Asthma Among US Adults

Sohyun Park, PhD, Centers for Disease Control and Prevention, 4770 Buford Highway, NE, Mail Stop F-77, Atlanta, GA 30341; L. J. Akinbami, MD; L. C. McGuire, PhD; H. M. Blanck, PhD

Objective: Sugar-sweetened beverage (SSB) intake is associated with inflammatory health conditions including obesity. Asthma is associated with inflammation and obesity. Therefore, we examined the association between SSB intake and current asthma among U.S. adults, and whether obesity was a modifier of this association.

Design, Setting, and Participants: We analyzed 2013 Behavioral Risk Factor Surveillance System data for 146,990 adults (≥ 18 years) from 23 states and the District of Columbia.

Outcome Measures and Analysis: We used multi-variable logistic regression to estimate associations between self-report of current asthma and frequency (0, >0 to <1 , 1 to <2 , or ≥ 2 times/day) of SSB intake (soda, fruit drink, sweet tea, sports/energy drink). covariates included age, sex, race/ethnicity, education, and smoking. Obesity ($\text{BMI} \geq 30 \text{ kg/m}^2$; using self-reported height and weight) was assessed as an effect modifier.

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