P41 (continued)

Research Action Center released best practices for unpaid meal policies, including anti-shaming strategies.

Objective: The purpose of this study was to evaluate the strength of unpaid meal policies and examine the relationship between the policy strength and amount of debt.

Study Design, Settings, Participants: In this cross-sectional, primary data collection study, Food Service Directors (FSDs) from five states were recruited to complete an online survey. FSDs submitted unpaid meal policies and reported debt from 2017-18. Policies were reviewed and scored for strength of anti-shaming statements (0 = not present, 1 = weak, 2 = strong; 25 items scored).

Measurable Outcome/Analysis: The main outcome was the amount of school debt from full-price and reduced-price meals. Variables examined included percent of students enrolled in free and reduced-price lunch (FRL), LEA size and classification (urban, suburban, rural). Univariate statistics were summarized, bivariate relationships were examined through chi-square analysis.

Results: The sample was 59 FSDs. The FRL rate across the schools was 50.1% (± 18.6); 75% were rural schools. Few schools had strong policies; almost 40% of the sample had a score less than five. The highest frequency of school meal debt (23.1%) from full price meals was between \$1,001-\$5,000; four schools reported > \$30,000 in debt from full price meals. For debt from reduced-price meals, 46% reported \$1-\$500 in unpaid meals; 20% reported no debt from reduced-price meals. There were no significant relationships between the amount of unpaid meal and strength of policy.

Conclusion: Many schools did not have strong anti-shaming policies. Because there was no relationship between strength of policy and amount of debt, LEAs can create stronger policies without concern for its effect on increased debt.

Funding: None.

Nutrition Across the Life Cycle

P42 Age and Education are Associated with Fried Fish Consumption in the Stroke Belt

Frances Hardin-Fanning, PhD, RN, fhardin@ua.edu, University of Alabama, 650 University Blvd E, Tuscaloosa, AL 35487; Cheryl Witt, MS, RN, University of Kentucky; Hunter Threadgill, MA, University of Alabama

Objective: Fish contain polyunsaturated fatty acids which are associated with decreased cardiovascular (CVD) risk. However, frying fish alters the fatty acids. Consumption of fried fish has been linked to increased risk of CVD and stroke, particularly in populations in the South's Stroke Belt. The purpose of this study was to explore characteristics associated with fried vs. non-fried fish consumption in the rural Appalachian region of the Stroke Belt.

Study Design, Settings, Participants: Volunteers ($n=195$) completed demographic and food frequency questionnaires (FFQ) during a community health event in rural Central Appalachia.

Measurable Outcome/Analysis: Age, gender, education, and income were assessed. Frequency of fried vs. non-fried fish consumption was calculated from the FFQ using DietCalc software.

Results: Average age was 55 years old ($SD=15.44$, range: 19-95). Females comprised 69% ($n=134$) of sample. For 41% ($n=79$), high school was the highest educational level, and 41.5% ($n=81$) had a college degree. Income was < \$30,000 per year in 49.2% ($n=96$) of participants. Fried and non-fried fish was consumed at least twice monthly by 39.3% and 34.3% of participants, respectively. Advancing age was associated with a greater likelihood to consume fried fish ($\beta=.225$, $t=3.20$, $P=.002$). Participants with more education were less likely to consume fried fish ($\beta=-.124$, $t=-1.73$, $P=.085$). Income and gender were not associated with fried or non-fried fish consumption.

Conclusion: Fried fish is popular in the South. While non-fried fish is associated with lower CVD and stroke risk, fried fish consumed more than twice weekly increases these risks by 63%. Interventions aimed at increasing the consumption of non-fried fish and reducing fried fish consumption are needed, particularly for older adults and those with lower levels of education.

Funding: NIH.

P43 Association Between Dietary Practices for Lifestyle Disease Prevention and Breakfast Habits

Etsuko Kibayashi, MS, RD, k22019@sonoda-u.ac.jp, Department of Food and Nutrition, Sonoda Women's University, 7-29-1 Minamitsukaguchi-cho, Amagasaki-city, Hyogo 6588520 Japan; Makiko Nakade, PhD, RD, Department of Food Science and Nutrition, University of Hyogo; Yukiko Nobuki, BS, RD, Health Promotion Division, Hyogo Prefectural Government; Natsumi Yamawaki, BS, RD, Itami Health & Welfare Office; Ayumi Morooka, BS, RD, Health Promotion Division, Hyogo Prefectural Government

Background: Healthy diets are essential for preventing lifestyle diseases. However, inadequate diet such as high fat-energy ratios and insufficient vegetable intake are observed in young adults in Japan. In addition, a large proportion of young adults skip breakfast. We hypothesized that these inadequate dietary factors are mutually related and that improvement in one effectively leads to improvement in the other.

Objective: To examine the association between dietary practices for lifestyle disease prevention and breakfast habits.

Study Design, Settings, and Participants: Hyogo diet survey 2016 is a cross-sectional survey of the stratified random sample of 32 areas (4,747 household members) in Hyogo Prefecture. Subjects included 791 adults (male, 368; female, 423) aged 20-49 years who completed the self-administered questionnaire of the survey.

Measurable Outcome/Analysis: The questionnaire included questions on breakfast frequency and dietary habits. Skipping breakfast was defined as a breakfast frequency of three days or less per week. Logistic regression

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