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Behavior, and Academy of Nutrition and Dietetics ($p = .02$).

Conclusions and Implications: Scorecards can be a reliable way to rate how well a school cafeteria is helping children make healthier choices. Perhaps the strongest predictor of the awareness and use of these scorecards is whether the food service director is a member of a professional association.

Funding: Cornell University, Food and Brand Lab

P19 Smarter Kids Café: Testing Smarter Lunchroom Scorecard Techniques for Childcare

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Objective: Recent changes in school lunchrooms have focused on changing the environment in a way that makes it easier, more attractive, and more normal to make healthier choices. This Smarter Lunchroom approach is being expanded to childcare and preschool settings. This research explores how well many of these Smarter Lunchrooms changes work in childcare situations, and it introduces both an abbreviated and a 100-point scorecard that is being piloted.

Design, Setting, Participants, and Intervention: Seventy-three 4-5 year olds in a medium-sized city daycare were involved in 4 different experiments to determine how changes that work in elementary school classrooms need to be adjusted for daycare settings.

Outcome Measures: Food choice and consumption volumes.

Results: These pilot tests indicated that children in daycare situations behave similarly to those in elementary schools: they poured 44% more cereal in larger bowls; they were nearly three times as likely to select healthy food (carrots) that had a sticker or logo on it, and they were 35% more likely to take the first food in the serving line. Interestingly, these children are much more influenced by their teacher or caregiver. This is a promising opportunity for new interventions.

Conclusions and Implications: Many of the Smarter Lunchroom changes in elementary lunchroom scorecards are also relevant in daycare settings. A promising new area that needs to be examined, however, is the use of caregivers as role models, instructors, and framers of healthy choice.

Funding: Cornell University, Food and Brand Lab

P20 Do Behavioral Economics Interventions Induce Healthy Eating Habits? Evidence From a 15-Week Cafeteria Field Study

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Objective: United States students continue to waste a significant amount of National School Lunch Program (NSLP) foods despite regulatory changes. Multilevel interventions with school cafeteria, classroom, and family components have resulted in sustained increases in student selection/consumption of healthy NSLP foods but are costly to implement. Behavioral Economics (BE) interventions targeting the school cafeteria environment are a low-cost alternative; however, studies to date have not assessed long-term impacts. The objective of this study was to identify whether BE interventions have a sustained impact on behavior once disbanded.

Design, Setting, Participants, and Intervention: A randomized controlled field study was carried out over 15 weeks in 2 demographically similar middle schools in central Ohio. Schools were randomized into: control or operate as normal for 5 weeks, implement intervention for 5 weeks, remove intervention for 5 weeks. The intervention was labeling the vegetables, placing fruit in 2 locations, and increasing plain milk by 10%.

Outcome Measures and Analysis: A process evaluation checklist measured fidelity of intervention components. Daily sales records measured changes in aggregate food selection. Trained researchers measured PW using the Quarter Waste Method on 100 randomly selected trays 2 days per week. Hierarchical linear regression was used to compare selection and PW across schools.

Results: At baseline, students wasted an average of 79% of the NSLP entrée, 51% of the vegetable, and 59% of the fruit.

Conclusions and Implications: Results from this study will demonstrate whether BE interventions lead to lasting improvements in student selection/consumption of NSLP foods. This information would inform the design of low-cost, wide-scale interventions to improve child nutrition.

Funding: Cornell Center for Behavioral Economics in Child Nutrition Programs

P21 EU-School Fruit Scheme: Children's and Parents' Perception Regarding Home Environment of Fruit and Vegetables (FV) in Bavaria

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Objective: Since 2010 the EU-School Fruit Scheme (SFS) in primary schools was established to increase children's FV consumption where the pupils get FV once per week. The objective is to examine children's and their parents' perception of home environment. A further goal is to determine whether there are agreements between children's and parents' responses of their perception. In addition, it will be shown whether the SFS has an influence on children's and parents' perceptions and agreements.

Design, Setting, Participants, and Intervention: Children's and parents' perceptions were collected using

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questionnaires in collaboration with 14 primary schools. The baseline survey (t0) was conducted in spring 2014, the follow-up survey (t1) in summer 2015. The questionnaires of 453 children (aged 8-10) and their parents are distributed in intervention group (n = 242; participating at SFS since 1.5 years) and control group (n = 211).

Outcome Measures and Analysis: Home environment was named as availability and accessibility of FV at home and parental encouragement to eat FV. Descriptive statistics and paired t-test were conducted to investigate any differences.

Results: Between t0 and t1 parents' availability, accessibility and children's availability document a high significant difference in the intervention group however not in the control group. Children's accessibility and parental encouragement have significant differences in both groups. Children's and parents' agreement regarding parental encouragement only has a significant difference.

Conclusions and Implications: To assess home environment of FV it is useful to obtain both parent' and children's perception. The longitudinal analysis reveals different impacts on children's and parents' home environment of FV.

Funding: Bavarian Ministry of Nutrition, Agriculture and Forestry

P22 School Foodservice Director and Community Health Coalition-Member Perceptions Related to the Healthy, Hunger-Free Kids Act in Indiana

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Objective: The Healthy, Hunger-Free Kids Act (HHFKA) has presented challenges for school foodservice in obtaining/preparing foods meeting federal nutrition standards. Concurrently, communities are improving their cultures of health, focusing on policies, systems, and environmental (PSE) changes. We report the development of a survey to identify school foodservice director (FSD) and community health coalition (CHC) perceptions related to school nutrition under HHFKA.

Design, Setting, Participants, and Intervention: The survey was developed using USDA program reports, literature review, and eleven key informant interviews. Pilot surveys are being administered to and evaluated by an expert panel of Indiana School Nutrition Association members and community coalition leaders involved in Purdue's health coalition network. Survey items are being revised according to expert panel feedback, establishing content validity. The final survey is being administered online to Indiana FSD (n=400) and CHC (n=500), targeting a sample size of 490 to achieve a 95% confidence interval and 3% margin of error.

Outcome Measures and Analysis: FSD and CHC perceptions will be analyzed using descriptive statistics,

student's t-test, and Chi-squared test. Experience and education level, urban/rural differences, school demographics, and involvement between FSD and CHC will be controlled for using ANOVA. Internal consistency is being established using Cronbach's alpha test.

Results: Key informant interviews indicate FSDs focus on implementation of nutrition standards, food waste, human resources issues, funding, and food safety, while CHCs see opportunities for school gardens, nutrition education, cooking demonstrations, use of local foods, and community engagement.

Conclusions and Implications: Awareness of school foodservice and PSE challenges is necessary in facilitating communication between groups to foster partnerships and support. Unified community leadership is a viable resource in accomplishing health promotion goals.

Funding: None

P23 Time and "Questioning Type" Affected Recall of Iron Deficiency Prevention Education Messages Among Rural Ghanaian Mothers

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Objective: The study assessed the effect of time and "questioning type" on the recall of education regarding iron deficiency (ID) prevention messages among rural mothers in Ghana.

Target Audience: A longitudinal community intervention trial conducted in a randomly selected anemia endemic community among rural mothers with young children in rural Northern Ghana.

Theory, Prior Research, Rationale: A once-off five-day (90min/day) intervention of ten key messages addressing gaps in a baseline survey (April, 2012), was implemented (July, 2013). Two refresher household visits (about 30mins/household) were performed within a month later. Measure recall of key messages post-intervention (3 months, 6 months, and 12 months).

Description: Post-intervention, the question at 3 (N=68 mothers) and 6 (N=64 mothers) months was "which of the ten key messages do you recall" and at 12 months (N=66 mothers) an additional question "describe what was discussed under key message 1-10 (mentioned)".

Evaluation: About 97.0% of the mothers were married and 98.6% were unschooled. Of the ten key messages, the mean number of recall $\pm$ SD; was 3 ± 1.6 (3months), 4 ± 1.7 (6months) and 5 ± 3 (12months). However, at 12 months, about 20% of the mother's recalled wrong content for the key messages or admitted they forgot the content. No correlation was observed between mother's educational status and recall.

Conclusion and Implications: Time seemed to improve the recall of key messages. However, the "questioning-type" at 12months gave apparently high recall which did not translate to related content recall. A longer term refresher contacts with the participants could improve content recall of messages.

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