P80 (continued)

to establish a statewide online, interactive technical assistance clearing house to assist school districts in accessing local community resources and individualize policy language.

Funding: None

P81 Ways to Make Fresh Produce Family-Friendly: Integrating Nutrition Education Programs into Community Farmers Markets

Beverly Henry, PhD, RD, LDN, bwhenry@niu.edu, Northern Illinois University, College of Health and Human Sciences, Wirtz 227, DeKalb, IL 60115; J. A. Maxwell, MS, RD, LDN, Kane County Health Department; R. A. McBride, BS, Northern Illinois University; A. Penland, BS

Objective: Developing student-run education activities in local settings regarding healthy eating habits.

Target Audience: Individuals, children, families, and LINK card users who attended city-supported farmers markets.

Theory, Prior Research, Rationale: Empowerment was the client-centered strategy applied. Empowering students to understand community-based nutrition education; considering culture, flexibility, and food meanings through informative resources, guided practice, and feedback from peers, supervisors and market patrons.

Description: Nutrition Booth events held monthly (n=5) at the Saturday's Farmers Market. Nutrition students (n=9) provided cooking demonstrations of 5, simple, seasonal produce recipes. Patrons tasted recipe samples, collected Fresh Flyer newsletters (av. 120/event; available online for e-access) and recipe cards. Social media used to advertise/promote recipes. Students engaged children with nutrition and health-related messages.

Evaluation: Students reported building competencies: educating consumers about misconceptions they may hold in regards to foods and nutrition, relaying simple food science principals and recipe collaboration, cooperating with community stakeholders and farmers to educate the public, becoming more familiar with regional foods, and enhanced confidence in communication skills required to communicate with different ages (ranging from children to elderly). Returning patrons reported using cooking tips and simple recipes. Vendors increasingly donated produce for food demonstrations.

Conclusions and Implications: Through interactive food demonstrations, students gained confidence and helped individuals enhance their own abilities to make positive behavior changes related to eating more healthfully. Integration of nutrition education with local events supported county goals that fresh fruits and vegetables be accessible to all families in our community. This model was replicated by another market in the community.

Funding: Fit for Kids Funders' Consortium

P82 Dietary Assessment of a School Meal Program in Tanzania

Rachel McBride, BS, 1rmcbride@niu.edu, Northern Illinois University, Wirtz Hall 118, DeKalb, IL 60115; B. W. Henry, PhD, RD, LDN; K. Thurmaier, PhD

Objective: To assess the current meal program for residents at a Tanzanian secondary school and compare it with available nutrition standards.

Study Design, Setting, Participants, and Intervention: Mixed design with interviews of Tanzanian secondary school cooks (facilitated by a translator) and headmaster; mealtime observations and calculated daily intake of students.

Outcome, Measures and Analysis: Structured questionnaire addressing food purchase and preparation, dietary goals for students, attitudes and emphasis placed on nutrition in the school. Nutrient intake data analyzed using Nutritional, MyPlate, and Dietary Reference Intake (DRI) goals to estimate students' adequacy of intake compared to macro- and micro-nutrient needs.

Results: The meal plan at the Nyegina Secondary School (n=511) consisted of three meals for all students (13-18 years) based on the purchase plan and custom of the school. Interviews and observations determined that students routinely consumed entire meals. Estimated caloric intake, protein, carbohydrates, and dietary fiber met DRI goals along with many vitamins and minerals. However, the following vitamins and minerals fell below the DRI goals with percentages depicting students' low estimated daily nutrient intake: vitamins A (5%), B12 (0%), and D (0%); and minerals calcium (15%), phosphorus (87%), and potassium (63%).

Conclusions and Implications: For this Tanzanian school-based meal program, recommendations include improving food purchasing patterns, optimizing nutrient timing and resources, and expanding access to nutrition education and standards. Although overall caloric and protein needs appeared to be met, limitations in this meal program could affect these adolescents' learning abilities and contribute to health problems typically seen in developing countries. Encouraging local stakeholders to buy into changes can lead to implementation of recommendations.

Funding: Northern Illinois University

P83 Growing Healthy Kids: K-2 After-School Cooking Club

Mitch Rippe, BS, mitchrippe@huskers.unl.edu, University of Nebraska-Lincoln, 2326 N. 60th Street, Lincoln, NE, 68507; J. Hall, MS, RD; A. Vierregger, MS, ACSM-HFS; A. Anderson-Knott, MA; J. Albrecht, PhD, RD; W. Koszewski, PhD, RD, University of North Dakota

Objective: An after-school cooking club is offered for K-2 students at a Title I school to increase nutrition knowledge, food preparation skills, and food safety practices.

Continued on page S140

P83 (continued)

Target Audience: Low-income K-2 students and their families (n=32).

Theory, Prior Research, Rationale: The educational program is based on the social cognitive theory.

Description: "Cooking Club" was offered as an option for K-2 students as part of the after-school program at a Title I elementary school. A maximum of 12 students participate each quarter with 1 session each week for 5 weeks. Lessons were based on MyPlate, focusing on 1 of the food groups each week. Extension Educators introduced the food group using an educational activity, then help students prepare a simple recipe associated with the topic. The recipe and ingredients to make 4 servings was sent home with the student to prepare the recipe with their families.

Evaluation: A student pre- and post-test were administered before and at the end of each session to assess nutrition knowledge. Parent evaluations were sent home with each weekly recipe and an end-of-program survey assessed behavior change. Nutrition knowledge increase of K-2 students ranged from 14 to 36% for the 5 lessons. Parent feedback included: family enjoyed the recipe: 1.38; and more awareness of good nutrition 2.71 (5 point, Likert scale, 1=strongly agree; 5=strongly disagree); 93% stated they made the recipe and 62% stated they would make the recipe again.

Conclusions and Implications: Experiential activities during education programs increase knowledge/skills. Providing families with ingredients to make the recipe at home reinforced knowledge/skills gained from the educational sessions.

Funding: NIFA

Additional Funding: Project 2011-67001-30011

P84 Discovery Neighborhood: A Youth Food Safety Educational Program

Amanda Robine, BS, amr417@gmail.com, University of Nebraska-Lincoln, 2326 N. 60th Street, Lincoln, NE 68507; S. Wilson, BS; C. Larvick, MA; C. Schwarz, MS, RD; S. Purcell; P. Jones; C. Wells, MS, RD; M. Krehbiel, PhD; J. Albrecht, PhD, RD

Objective: To develop and conduct a youth food safety curriculum (K-5th grade).

Target Audience: K-5th grade youth

Theory, Prior Research, Rationale: Children are at a higher risk of contracting foodborne illnesses and these illnesses can be prevented with proper food handling techniques. A 6 lesson food safety curriculum was developed using the Conversation Map™ methodology and experiential learning activities.

Description: Discovery Neighborhood is a 6 lesson program designed for K-5 grade youth. The interactive program uses a Mat (30"x 36") which illustrates a neighborhood. Each lesson focuses on one FightBac!™ food safety concept (handwashing, clean, separate, cook, chill and produce) with age-appropriate activities. Cartoon

characters from the Discovery Neighborhood help youth learn the concepts of the curriculum. Each lesson has an optional food activity that reinforces the lesson's main concept. A family newsletter is distributed to the youth to share at home highlighting the main points of the lesson.

Evaluation: Each lesson contains a pre- and post- evaluation to measure knowledge learned. Discovery Neighborhood was piloted in 3 after-school settings in 3 different Nebraska communities. Participants (n=33) completing the evaluations were mainly K-2 graders (75%). An increase in knowledge was found for the handwashing (17%), clean (12% and positive identification of items to contaminate surfaces), separate (10%) and cook (30%) lessons.

Conclusions and Implications: Discovery Neighborhood is an educational program that provides youth (K-5) with food safety knowledge in an interactive and engaging way. The program is designed to use in an after-school or in the school setting.

Funding: University of Nebraska-Lincoln Extension

P85 Growing Healthy Kids: Parent Evaluation

Johnna Hall, MS, RD, jhall21@unl.edu, University of Nebraska-Lincoln, 2326 N. 60th Street, Lincoln, NE 68507; A. Vierregger, MS, ACSM-HFS; M. Anderson-Knott, MA; J. Albrecht, PhD, RD; W. Koszewski, PhD, RD, University of North Dakota

Objective: Growing Healthy Kids is a School Enrichment Kit Program (K-2) developed to increase knowledge and improve nutrition/health behaviors.

Target Audience: K-2 students and their families

Theory, Prior Research, Rationale: The School Enrichment Program is based on the Social Cognitive Theory which emphasizes a behavioral component with environmental and individual aspects.

Description: Growing Healthy Kids uses educational kits specifically developed for each grade (K-2) with age-appropriate curriculum and activities. Each kit contains 5 lessons which include: MyPlate, making healthy choices, how their bodies use food, meal planning, and physical activity. An extension educator delivers the kits and teaches an introductory lesson on hand washing. The kit is left with the teacher for three weeks to utilize. After three weeks, the extension educator returns to teach a final lesson, either healthy snacking or physical activity.

Evaluation: A postcard survey was sent to parents after students completed the program. A total of 637 surveys were returned following 2 years of program implementation. Among respondents, the majority reported improvement of health behaviors because of the program. More than half of respondents agreed that because of the School Enrichment Kit Program their families are more aware of the importance of good nutrition (73.8%), are making healthier meal and/or snack choices (68.6%), are more willing to try new foods (60.6%), and are washing their hands more often before eating (58.2%).

Continued on page S141