P33 (continued)

Objective: This study sought to identify and describe challenges of food access in a rural community and promote church-based interventions.

Study Design, Setting, Participants, Intervention:

In partnership with two United Methodist Churches in rural North Carolina, three focus group interviews (n = 23) were conducted focusing on health and nutrition issues with six to ten local residents who administered or received church aid.

Outcome Measures and Analysis: Outcome measures included a qualitative description of barriers to food access. Using the constant comparative method to analyze themes, four researchers independently developed a list of barriers and came to a consensus.

Results: The focus groups elucidated several barriers, including lack of local and homegrown food, high costs of healthy foods, inadequate food and nutrition resources, an absence of economic opportunities, and trouble navigating the food environment. Some of these issues, such as lack of access to homegrown food, are unique to rural populations due to culture and location. Viable solutions include providing fruits and vegetables through local church gardens, partnerships with local farmers, and promoting community resources such as transportation and education.

Conclusions and Implications: This study described rural Appalachia's food environment and identified multiple barriers to accessing enough quality food from the perspectives of food insecure individuals and food assistance volunteers. By obtaining these viewpoints, community solutions that promote rural food security became evident.

Funding: None.

P34 Family Child Care Home Provider Experiences with the Child and Adult Care Food Program

Susan B. Sisson, PhD, CHES, RDN, susan-sisson@ouhsc.edu, University of Oklahoma Health Sciences Center, 1200 N Stonewall Avenue, Oklahoma City, OK 73117; Ashley M. Brice, MS, RDN; Leah A. Hoffman, PhD, RDN; Naneida Lazarte-Alcala, PhD, Oklahoma State Department of Education; LuAnn Faulkner-Schnieder, MS; Jennifer Weber, MS; Allen W. Knehans, PhD, University of Oklahoma Health Sciences Center

Background (Background, Rationale, Prior Research, and/or Theory): Family Child Care Home providers (FCCH) are responsible for providing healthy meals for young children.

Objective: To examine FCCH experiences with the Child and Adult Care Food Program (CACFP) and determine factors influencing food served.

Study Design, Setting, Participants, Intervention: Cross-sectional study. Individual interviews conducted in community settings in Spring 2016. FCCH (n = 30) around Oklahoma City on the CACFP. Individual, semi-structured

interviews and one week of current menu was analyzed for foods served.

Outcome Measures and Analysis: Frequencies were calculated for descriptive characteristics and foods served. Interview transcripts were analyzed for common themes by three researchers.

Results: All participants were women, 60% had been working in child care ≤10 years, 67% cared for ≤7 children, 90% Tier I CACFP. FCCH were already meeting some new rules and best practices: 85% serve ≥1 red/orange vegetable/week, 100% limit juice to once/day, 97% do not fry foods on-site, 100% encourage breastmilk, and 77% serve ≥1 whole grain-rich food/day. Room for improvement exists: 50% serve low sugar cereal, 4% a vegetable or a fruit for snack, 27% serve family-style meals, and 20% limit pre-fried foods. Five main themes emerged: satisfied with sponsors, but frustrated with implementation such as confusion on creditable foods and serving sizes; serve foods that are creditable; serve foods children will eat to minimize food waste; serve what is perceived as healthy, although there is misinformation; and limit cost and save time.

Conclusions and Implications: FCCH feel the CACFP is beneficial but expressed frustrations with implementation and demonstrated lack of awareness of healthy eating patterns and nutrition for children. They are passionate and care about children and want to do what is best for them while saving money and time. Connecting with sponsors is important to make the greatest impact and assist FCCH in meeting guidelines and best practices.

Funding: College of Allied Health Student Research and Creativity Grant, Department of Nutritional Sciences.

P35 Food Insecurity Among College Students at a Rural Southeastern University: Assessing Coping Strategies

Kametrica McNeil, BS, LDN, RD, mcneilk11@students.ecu.edu, East Carolina University, Health Sciences Building, MailStop #668, Greenville, NC 27834; Oyinlola T. Babatunde, PhD, MPH, RDN; Stephanie Pitts, PhD

Background (Background, Rationale, Prior Research, and/or Theory): Food insecurity is a major public health concern in the U.S. In 2016, 12.3% of the U.S. households experienced food insecurity at some time during the year. There has been extensive research done on the general adult population; however minimal studies have specifically investigated college students.

Objective: The purpose of this study was to examine the prevalence of food insecurity, relationship between food insecurity and demographic variables (such as gender, age, and marital status), and explore coping strategies used by students at a rural Southeastern University.

Study Design, Setting, Participants, Intervention: Invitations were sent via email to a sample of 3,650 students, 18 years and older, to complete an online survey via Qualtrics. Demographic and food insecurity

Continued on page S24

P35 (continued)

coping strategies questions were included to obtain information about participant's characteristics, lifestyle and experiences. Food insecurity status was assessed using the validated USDA's 10-item Adult Food Security Survey Module.

Outcome Measures and Analysis: Descriptive statistics were used to analyze the characteristics of participants. Independent t-tests and Chi Square Test were also conducted ($P < .05$).

Results: A total of 407 students completed the online survey. Majority were white (67%), female (78%), mean age was 22 years old. The prevalence of food insecurity among respondents was 33%. Food secure students were significantly more likely to have a higher GPA, $P = .000$. Academic year, marital status, living arrangements, and perceived current health were significantly different among food-secure and food-insecure groups ($P < .05$). Food insecure students were more likely to report participating in federal food assistance programs ($P = .000$) and obtaining food from food banks/pantries ($P = .002$) as coping strategies than food secure students.

Conclusions and Implications: Food insecurity is a significant problem among respondents, affecting about one in three students. Educating college students on the available resources and/or partnering with community food banks and gardens to help bring resources to campus may be beneficial to help alleviate hunger and provide additional coping strategies to improve access to food.

Funding: None.

P36 Impact of Food Assistance Program Participation on Food Security Patterns: A Longitudinal Study of Women in Illinois

Cassandra J. Nikolaus, MS, cjnikol2@illinois.edu, University of Illinois, Urbana-Champaign, 905 S Goodwin Avenue, Urbana, IL 61801; Emily Loehmer, MS, RDN; Alicia Jones, BS; Ruopeng An, PhD; Naiman Khan, PhD, RD; Jennifer McCaffrey, PhD, MPH, RD

Background (Background, Rationale, Prior Research, and/or Theory): Programs, such as the Supplemental Nutrition Assistance Program (SNAP) and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) are national food insecurity (FI) alleviation efforts. However, most research is cross-sectional and longitudinal evidence is scarce.

Objective: This study aimed to assess the longitudinal relationship between food assistance program participation and FI status over time among a sample of women.

Study Design, Setting, Participants, Intervention: Women (18–64 years) were recruited in-person across Illinois at sites serving high risk populations (subsidized child care, housing department, etc.). Participants completed sociodemographic questionnaires in-person and scheduled phone calls to obtain FI information. Women provided data over 15 months. The 6-item USDA Food Security Survey Module was administered over the phone 4 times during the study to categorize women as food secure or inse-

cure. Over time, FI patterns were considered stable (either secure or insecure), transitioning (from one category to another), or unstable. Fisher's exact tests were used to compare program use by FI pattern.

Results: Of the 297 eligible participants, $n = 98$ women completed ≥ 3 phone calls to provide patterns over time. Participants were average age 35.9 years old (± 10.2), 52.0% White, 51.6% had incomes $< \$1600/\text{month}$, and 83.3% lived in households with children. Fifty-four percent utilized SNAP and 31.7% of women in households with children used WIC. At baseline, 63.3% of participants were food secure and 53% were consistently secure over 15 months. WIC use ($P = .001$) but not SNAP use ($P = .112$) was significantly related to FI pattern, with more WIC users transitioning from food insecure to food secure.

Conclusions and Implications: Though hindered by attrition, results provide recent data related to FI patterns over time. In our sample, WIC participation was associated with transitioning from food insecure to food secure over 15 months. Future work should investigate this with larger datasets over longer periods.

Funding: USDA.

P37 Interrelationships of Multiple Forms of Transitions in Indonesia

Arzelia Yorika Lienando, MS, Inha University, Department of Food and Nutrition; Soo-Kyung Lee, PhD, MScPH, RD, skleenutrition@inha.ac.kr, Inha University, Department of Food and Nutrition, 100 Inharo Namgu, Incheon, Republic of Korea 22212

Background (Background, Rationale, Prior Research, and/or Theory): Barry Popkin proposed the term of "nutrition transition" to better describe the changes of diets over time and their impact on health. The term of "transition" has also been used to signify the temporal changes in other areas such as physical activity, body weight, and epidemiologic areas. Only a few attempted to understand the interrelationships of the multiple forms of transitions.

Objective: This study aimed to examine whether and how the transition of socio-economic, dietary, physical activity, and body weight were correlated and contributed to epidemiologic transition in Indonesia.

Study Design, Setting, Participants, Intervention: This study analyzed data of the household's main persons (2,749 over 19 years old) from Indonesia Family Life Survey (IFLS) 2007 and 2014 cross-sectionally and longitudinally. IFLS was designed to provide information for examining behaviors and outcomes, hence including wide-range data on the individuals and households from economic, education, family matters, to health status. Most data were self-reported, but, health data were measured.

Outcome Measures and Analysis: Education represented socio-economic transition. Dietary transition was examined with individual weekly household expenditure on rice, sugar and sweeteners, vegetable oil, animal fat, milk, etc. Physical activity transition was studied with transportation-related, occupation-related, and

Continued on page S25