P90 (continued)

whether use of each category of food label changed over time.

Results: The use of all 4 label categories significantly increased from 2017 to 2019, while the proportion of respondents stating that they did not read food labels decreased. Reading of ingredient lists (86%) and nutrition panels (85%) were more frequently reported compared to front of package (74%) and production practice (72%) label claims.

Conclusions: Food label usage is increasing in general, and consumers are increasingly reading both front of package claims (organic, natural, low sodium) and back of package information (ingredients, nutrition facts panel). As consumer demand for “clean label” products increases, more research is needed to better understand the health impacts of such products and the best methods for labeling them.

Funding: None.

Basic Food and Nutrition Knowledge

P91 Pilot Test of Supporting Wellness at Pantries (SWAP): Clients Chose Healthier Foods after Implementation

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Background: The US food banking network serves about 46.5 million individuals with food insecurity yearly. People living with food insecurity are at risk of diet-related chronic diseases and evidence suggests that foods available in food pantries are mostly nutritionally poor. In response, the Supporting Wellness at Pantries (SWAP) system ranks food into green, yellow, and red categories based on the levels of saturated fat, sodium, and sugar. SWAP is designed to increase the supply and demand for healthy food in pantries.

Objective: To assess the nutritional quality of clients' selections before and after implementing the SWAP system.

Study Design, Setting, Participants: Availability of green, yellow, and red items was captured pre- and post-intervention using a pantry inventory assessment. For the intervention, foods in the pantry were rearranged by SWAP ranking and signage was added to educate clients about which items to choose often (green), sometimes (yellow), or rarely (red). Two-hundred twenty-two clients participated in the pre-post study.

Measurable Outcome/Analysis: Clients' selections were recorded and the proportion of green and red

selections in total and per food group were calculated. Primary analyses compared the proportion of green and red foods chosen by clients before and after SWAP implementation using independent t-tests. A regression model was used to compare clients' selection pre to post while controlling for food pantry inventory.

Results: There was not a significant change in the overall pantry inventory over time. However, the proportion of healthy (ie, green) food selections significantly increased and less healthy (ie, red) food selections significantly decreased. The overall improvement in nutritional quality of the clients' carts remained significant while controlling for the pantry inventory.

Conclusions: Results suggest that nutrition information provided through stoplight signage and clear messages on items to choose often, sometimes, and rarely can shift client choices in the pantry setting.

Funding: Institute for Collaboration on Health, Intervention, and Policy (InCHIP) Seed Grant.

Agricultural Production and Food Systems

P92 Controlling for Confounding Factors in a Multi-Component Farmers' Market Intervention

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Background: Despite federal funding to encourage SNAP EBT use at farmers' markets, only \$22 million or 0.03% of the \$70 billion total SNAP dollars are spent in these direct-to-consumer channels.

Objective: The objective of this study was to determine if confounding factors such as weather or other market activities have an impact on SNAP sales compared to typical market days.

Study Design, Setting, Participants: This 4-year, quasi-experimental study used a multi-component intervention at a medium-sized, weekday, year-round farmers' market in northern California. Total SNAP sales were collected over 54 baseline and 136 intervention market days, respectively. SNAP recipients were the target population, however several intervention components were available to all market shoppers. The multi-component intervention included SNAP outreach (ie, on-site eligibility screening, SNAP application assistance, and SNAP material distribution), SNAP signage, financial incentives (ie, Market Match), and nutrition education including food tastings highlighting market produce, recipe cards, posters, and market education.

Continued on page S60

P92 (continued)

Measurable Outcome/Analysis: The primary outcome measure was SNAP sales. Data about potentially confounding factors including bad weather (ie, rain, heat advisory conditions, and poor air quality) and unusual circumstances (ie, school field trips, WIC distribution days, federal holidays, and issues with the intervention programming) were also collected for each market day. Mann-Whitney tests were run for the baseline and intervention periods separately to assess if these factors had an impact on sales.

Results: During the baseline period, SNAP sales were significantly lower on the 9 market days that experienced bad weather ($P = .01$). However, bad weather did not have a significant impact on SNAP sales during the intervention period. Unusual circumstances did not have a significant impact on SNAP sales during the baseline or intervention periods.

Conclusions: In order to determine which market days to include in subsequent SNAP sales analyses, confounding factors should be investigated.

Funding: USDA, California Department of Food and Agriculture and Ecology Center.

Basic Food and Nutrition Knowledge

P93 A Multi-State Evaluation of the Knowledge of the Background and Dangers of Popular Fad Diets Among Cooperative Extension Agents in Family and Consumer Sciences

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Background: Cooperative Extension Services (CES) provides research-based information to communities. Rapidly changing trends leave communities seeking reliable information. There is a need to assess CES agents' knowledge about fad diets to develop effective professional trainings.

Objective: To assess general and potential adverse effects knowledge of fad diets of CES agents and factors influencing that knowledge.

Study Design, Setting, Participants: An online survey assessed CES agents employed in Louisiana, Texas, Mississippi, and Arkansas working in family and consumer science, nutrition, or related fields. The survey included demographic items, certifications held, years of experience, professional association memberships, education level and knowledge items to assess general and adverse effects knowledge of low-carbohydrate diets, intermittent fasting, detoxes, and cleanses. IRB approval was obtained from Louisiana Tech University. State office designates distributed the survey link to eligible agents.

Measurable Outcome/Analysis: Descriptive statistics characterized respondents. Knowledge items addressing

diet premises and adverse effects were scored and categorized by diet type. ANOVA testing determined factors that influenced knowledge.

Results: Eligibility was met by 138 respondents. The most reported length of employment was 1-10 years (42%), and master's degrees for education level (63%). The mean score for total knowledge of fad diets was 70%. Respondents scored higher for general knowledge (75%) than adverse effects questions (65%). Members of the Society for Nutrition Education and Behavior (SNEB) and the Academy of Nutrition and Dietetics (AND) scored highest for total knowledge (72%), as did RDN, DTR, and Certified Health Education Specialist (CHES) certifications (74%). An ANOVA yielded a significant effect for CHES certification, $F(1, 2) = 5.16$, $P = .03$ and for RDN/DTR certifications, $F(1, 0) = 4.83$, $P = .03$ for adverse effects knowledge. Respondents (80%) chose webinars as the preferred delivery method of professional education.

Conclusions: Findings can be used to create needed meaningful professional development for Family and Consumer Sciences agents.

Funding: None.

Agricultural Production and Food Systems

P94 Making On-Farm Food Safety Easy Using an Online Application

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Background: Foodborne illness costs in the US are approximately \$164 billion/year. In addition to public health costs, outbreaks pose huge risks and even jail time to the agricultural sector. Typical on-farm food safety trainings require all-day, lecture-based education that are costly and ineffective. Previous survey results show that 68% of 200 California farmers viewed laws and regulations as a barrier, 79% do not have documented food safety plans and 71% want practical food safety trainings.

Objective: The objective of this study was to develop, refine, and test the effectiveness of 13 on-farm food safety training videos which are a component of an interactive online food safety education program called EASY GAP.

Study Design, Setting, Participants: This study was a between-subjects design with 2 treatment groups comprised of California specialty crop farmers. Group #1 participants reviewed draft videos and Group #2 participants reviewed revised videos. Both groups completed a post survey.

Continued on page S61