NP32 (continued)

allow us to evaluate the impact of implementation fidelity on the intervention results.

Funding: 2012-68001-19604

NP33 Process Evaluation of the Smarter Lunchrooms Randomized Controlled Trial (RCT): Year 3

Alisha Gaines, PhD, againes@cornell.edu, Cornell University, 342A MVR Hall, Reservoir Avenue, Ithaca, NY 14853; Tisa Hill, MPH, Cornell University; Jamie Dollahite, PhD

Objective: The purpose of this study was to conduct process evaluation of the Smarter Lunchrooms RCT, redesigned to examine effectiveness of environmental strategies promoting fruit, vegetable, and unsweetened milk consumption in New York State middle schools that self-selected intervention components, compared with schools that were assigned an intervention protocol.

Description: Participating schools were randomized to receive no intervention (control schools, $n=4$), a six-week intervention in which food service staff selected protocol items (self-selection schools, $n=3$), or an assigned protocol mirroring that of a self-selection school with similar sociodemographic characteristics (matched schools, $n=5$). The research team partnered with Cornell Cooperative Extension (CCE) agents to deliver the intervention. An adapted RE-AIM framework guided process evaluation designed to monitor fidelity to intervention protocols, determine the extent to which protocols were maintained post-intervention, and identify facilitators and barriers to successful implementation and maintenance.

Evaluation: Measures included training documentation, school nutrition environment assessments, cafeteria audits, CCE school contact logs, and post-intervention interviews with CCE and food service staff. Implementation fidelity and maintenance were higher than in previous iterations of this RCT, though no consistent differences were observed among self-selection and matched schools. Non-compliance was associated with limitations in school food offerings, restrictive serving line structures, and changes to staff routines that proved difficult to maintain in busy serving periods. Staff motivation and effective intervention support facilitated successful implementation.

Conclusions and Implications: Leveraging staff motivation and providing support for managing barriers to implementation proved effective in enhancing implementation fidelity. These data will inform analyses of intervention outcomes and may prove valuable for other environmentally-focused interventions in school cafeterias.

Funding: 2012-68001-19604

NP34 Outputs and Outcomes at Year 5 of the Out-of-School Program for Youth and Adult Dyads: iCook 4-H

Adrienne White, PhD, RDN, FAND, awhite@maine.edu, University of Maine, 5735 Hitchner Hall, Orono, ME

04469-5735; Lisa Franzen-Castle, PhD, RN, University of Nebraska-Lincoln; Kendra Kattelman, PhD, RDN, South Dakota State University; Sarah Colby, PhD, RD, University of Tennessee; Melissa Olfert, DPH, RDN, West Virginia University

Objective: To present primary outputs and outcomes at year 5 of iCook 4-H

Description: iCook 4-H was a 2-year control/treatment intervention study ($n=228$ dyads) followed by dissemination testing ($n=57$ dyads). The final curriculum is 8, 2-hour sessions designed to impact health-promoting behavior for 9-10 year olds and their adult food preparer. The content includes food preparation and family activities to encourage cooking, eating, and playing together. Four seasonal newsletters serve as boosters following sessions. Evidence-based pre/post program outcome evaluations of dyads with a fidelity instrument to test intended versus actual implementation accompany the curriculum. A curriculum implementation training course is on the eXtension Campus Moodle website and in development is a novel dissemination framework, eB4CAST, to document impact and effect of evidence-based research.

Evaluation: During the intervention study, physical assessments were measured for youth and surveys were completed by dyads. In dissemination, program outcomes were assessed.

Conclusions and Implications: Based on 57% retention, treatment versus control youth were higher for baseline adjusted BMI z-scores, fruit/vegetable intake (2.16 vs 1.67 cups/day; $P=0.04$) and dairy (0.57 cups/day; $P=0.02$). No intake differences remained after 1000 kcal standardization. For treatment adults versus control, food resource management was 0.87 points higher ($P=0.02$). Program outcomes in treatment versus control was higher, for youth, cooking skills ($P=0.0002$) and culinary self-efficacy ($P=0.03$) and, for adults: measure of "cooking, eating, playing together" ($P=0.04$). iCook 4-H is being prepared for national distribution.

Funding: 2012-68001-19605

NP35 WAVE~Ripples for Change (Year 4 of 5): Baseline and Year 1 Exit Findings

Siew Sun Wong, PhD, siewsun.wong@oregonstate.edu, Oregon State University, Ballard Hall 105E, OR 97331; Melinda Manore, PhD, RD, CSSD, FACSM, Oregon State University; Tonya Johnson, MPH; Christopher Scaffidi, PhD; Yu Meng, MS; Megan Patton-Lopez, DPH, RD; Mario Magaña Álvarez, MAIS; Cristian Curiel, BS

Objective: Prevent childhood obesity among high school athletes ages 14-19y in Oregon.

Description: Two year sport nutrition and life skills intervention with hands-on lessons in both physical and virtual worlds. In Fall 2015, 611 of 870 high school athletes from 13 schools in Oregon were enrolled in WAVE (intervention group [IG]=495, comparison group [CG]=166). Participants were 53.3% females, mean age of 15.3 ± 1.2 (13-18y), 57.6% participating in free or reduced lunch,

Continued on page S124

NP35 (continued)

and ethnically diverse (White=49.7%, Latino=42.7%, Asian=4.7%, other=2.9%). At baseline, Body Mass Index (BMI, kg/m²) was significantly lower among males and females in IG than CG; 9 months later, IG female's BMI remained significantly lower than that of CG females. Attrition at the end of Year 1 intervention (9th month) was 35% for IG and CG. Overall, attrition in anthropometric, sport nutrition knowledge and dietary assessments ranged from 31 to 39%.

Evaluation: During Year 1, Fitbit wearing decreased by 37% in IG and CG. Exclusive intervention activities such

as Rippleville (virtual world) and summer camp dropped by 40% and 45%, respectively but participation in the life-skill workshops increased from 29% to 39%. Each participant was provided feedback through a quarterly printed health report and score card; \$5-\$35 gift cards after completing assessments; and various gifts such as water bottle, towel, socks, snacks, and swag.

Conclusion and Implications: Attrition rates are within the 40% estimation. Whether it is in or outside soccer season, Extension 4-H soccer program coordinator, coaches, and team captains are critical to keeping the participants engaged in the 2y study.

Funding: 2013-67001-20418