State-Wide Impact of a School-Based Family Engagement Strategy to Influence “Food Hero” Health Behaviors at Home
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Background
The federally funded Oregon Supplemental Nutrition Assistance Program – Education (SNAP-Ed) uses social marketing (SM) to positively influence individual/family behaviors and affect higher levels of the socio-ecological model through policy, systems and environmental change activities. Food Hero (FH) aims to increase fruit and vegetable (FV) intake/access among low-income Oregon families at home and at school. FH is an evidence-based SM campaign using benchmark criteria and social cognitive and diffusion of innovations theory. SNAP-ED staff developed the Healthy School Celebrations kit (HSC) in 2016 to increase healthy food choices offered in school classrooms outside the USDA’s school breakfast/lunch programs. In 2016-17 HSC piloted with 84 teachers at nine elementary schools (all ≥50% USDA free/reduced school meal enrollment) encompassing three communities in two counties. The project and training were extended to another two counties and four additional schools in 2018.

Methods
At each school, HSC trainers provided a comprehensive teacher training session, and teachers received a classroom implementation kit with cooking equipment, parent letters, suggested policy guidelines, recipes and buying guides. Teachers were encouraged to keep their toolkits for continued use and invited to reach out to Oregon State University Extension SNAP-ED educators for ongoing support.

An initial survey to assess use was administrated to teachers in early adopter schools at the end of the 2018 school year and completed by 43 teachers (response rate ~51%) in six schools. An additional 25 teachers from four schools completed a slightly revised survey in 2019. Surveys were used to gather feedback on various elements of the toolkit and assess intentions to use HSC the following year and share as a resource with peers.

Results
- Overall, 68 surveys were returned (62% response rate); 73% of teachers used HSC during the school year (mean=2.5 times; mean=26 students/classroom).
- The recipes teachers reported making most often were smoothies (51%) (e.g. FH Popeye Power and Peach Carrot Smoothie), followed by build-your-own snacks (30%), (e.g. FH Fruit Pizzas and Healthy Trail Mix).
- Overall, 91% of teachers reported increased confidence in conducting food preparation activities with students.
- On the 2018 survey, 71% reported they were very/extremely likely to tell peers about the HSC toolkit (n=43).
- Cooking equipment/supplies and policy guidelines were rated the most important HSC components on the 2019 survey (n=25).

Examples of general feedback from teachers:
- “Having the materials (blender & recipes) makes it easy for me to plan a healthy celebration.”
- “LOVED the tablecloth, mixing bowl and measuring cups!”
- “Our Title 1 students experience so few things in life. This was a great way to add to the classroom exposure without a lot of teacher prep.”
- “It helped my students experience recipes made from scratch. It has also added to their use of fresh veggie + fruits in their diets.”

Conclusions and Implications
Results showed positive health behavior changes in the classrooms of >2500 students and support continued development of HSC. Overall, 77% of teachers reported they were very/extremely likely to use HSC the following school year.

A broader school level implementation of the HSC program would increase the sustainability of this environmental strategy. Further refinement of the program should include continued work to increase the number of reported times the HSC is used in a classroom/year and assess HSC’s reach to parents, administration, and school policy adoption.

Long-term goal: Implement HSC statewide within Food Hero and beyond.