

# NEAFCS JOURNAL



## Author Note

Rosa Vargas, MPA -  
Regional Community  
Education Manager,  
rivargas@ucanr.edu  
Shannon Klisch, MPH -  
Academic Coordinator II,  
sklisch@ucanr.edu  
2156 Sierra Way, Suite C  
San Luis Obispo, CA  
93401  
805-781-5944



Rosa Vargas & Shannon Klisch  
University of California Cooperative Extension - San Luis Obispo & Santa Barbara

## COOKING TOGETHER (VIRTUALLY) TO BUILD COMMUNITY AND PROMOTE HEALTH DURING COVID-19

### ABSTRACT

The COVID-19 pandemic exacerbated and exposed health and education inequities, especially among low-income populations and communities of color (James & Thériault, 2020). Increasing access to educational opportunities and providing family education to support healthy family meals and evidence-based child-feeding practices during a pandemic is a promising practice for supporting health. This paper describes the efforts of one extension CalFresh Healthy Living program to implement virtual Family Cook Nights through partnerships with three low-income schools during COVID-19. Outcomes include positive behavior changes reported by twelve families on matched pre-and-post assessments and high feasibility and acceptability for implementation as reported by school partners and extension educators.

The COVID-19 pandemic exacerbated social inequities and led to income loss, which increased food insecurity to 38% in March 2020 and poor health outcomes among at-risk populations (Wolfson & Leung, 2020). Food insecurity is defined as “a condition [of] limited or uncertain access to sufficient, nutritious food for an active, healthy life [and it] disproportionately affects low-income communities and communities of color” (Coleman-Jensen et al., 2020). These inequities have also deeply affected access to and participation in educational programs, which in turn has had negative consequences on the well-being and mental health of adults and youth (James & Thériault, 2021).

Increasing access to educational opportunities and providing virtual family education to support healthy family mealtimes and evidence-based child-feeding practices from the Happy, Healthy Families curriculum during a pandemic is a promising practice for supporting individual and community health. Teaching healthy child feeding practices such as including children in food preparation and avoiding using food as a reward are associated with healthy behaviors in children, including an increased preference for fruits and vegetables, increased enjoyment of cooking, and higher self-efficacy for selecting and eating healthy foods (Blanchet et al., 2020). Further, teaching parents to avoid unhealthy child-feeding practices may prevent negative long-term health consequences. According to Jensen et al. (2020), “besides a direct relation with higher intake of unhealthy foods, frequent use of food as a reward may also increase the risk of being overweight through long-term effects on eating behavior.”

## OBJECTIVE

Recognizing the uncertainty of COVID-19 and the importance of supporting the health and food security of families in the local community, the Youth, Families and Communities program of the University of California Cooperative Extension in Santa Barbara County (UCCE) collaborated with schools and partners to pilot a virtual Family Cook Nights series. The mission of the UCCE program is “to cultivate environments where local youth, families, and community members have access to research-based resources and knowledge in order to be the creators of a healthy, inspired, active and connected [community]” (University of California Agriculture and Natural Resources [UCANR], 2022). The objective of the virtual Family Cook Nights programming was to improve child-feeding practices among participating parents and/or caregivers and cooking skills with families while using the tools and resources available to them in their own homes. An additional objective was to assess the feasibility and acceptability of virtual programming to provide nutrition education during a pandemic and without the common barriers experienced by families with low incomes to participate in in-person classes such as transportation and childcare.

## BACKGROUND

To implement virtual Family Cook Nights, UCCE partnered with schools serving students in Transitional Kindergarten through 6th grades in Santa Maria, CA where greater than 80% of students participate in the Free or Reduced-Price School Meal Program. These school partnerships were an integral part of the success of this program. In addition, school staff and administrators encouraged participation in the Family Cook Nights program, provided access to school resources and technology, and integrated the program as a part of the services offered on their school campus.

Since the first pilot in 2020 UCCE staff and school partners have hosted three virtual Family Cook Night series (4 classes per series) simultaneously in English and Spanish via Zoom video conferencing at three school sites. Families with children in TK-6th grades plus their siblings between the ages of 0-17 signed up through their respective schools and were given access to the virtual classrooms through school computers and district Zoom rooms. All registered families received a link to an online session, and translation was provided during sessions. Breakout rooms were implemented at the start of each session to allow participants to view lessons, discuss activities, and share feedback in their preferred language. UCCE staff were trained in language justice concepts such as cultivating multilingual spaces for participants by utilizing zoom translation features, understanding varying interpretation methods (consecutive interpretation, simultaneous interpretation), and recognizing the varying dimensions of language and language access, in addition to regular nutrition education and adult education trainings (Arguelles et al., n.d). Using the Healthy, Happy Families curriculum, UCCE educators taught healthy nutrition, child feeding, and physical activity behaviors. Positive child feeding behaviors included how to involve youth in cooking and meal preparation, using words instead of food to praise positive behavior, enjoying family meals together, and continuing to offer new foods to children even after the child disliked it the first time. Families also learned about basic nutrition following the United States Department of Agriculture (USDA) MyPlate and food safety concepts. UCCE educators demonstrated age-appropriate tasks and shared best practices to assist families in engaging youth in the process of preparing meals in the home.

**UCCE** educators continued to strengthen partnerships with Santa Barbara Food Bank (SBFB), school partners, youth, and families in Santa Barbara County. Families utilized resources available in their homes and supplemental materials were provided by the SBFB and UCCE staff, such as recipe ingredients, measuring cups, cutting boards, and MyPlate demonstration plates. During each class, UCCE educators provided families with the opportunity to share their experiences and thoughts with the group and welcomed participation from all family members.

## FINDINGS

**Table 1**

*Participant demographics, self-reported*

<b>Age and gender</b>	<b>Female</b>	<b>Male</b>	<b>Unknown</b>	<b>Total</b>
Less than 5 years old	1	7	12	20
5-17	18	18	17	53
18-59	21	9	28	58
<b>Total</b>	<b>40</b>	<b>34</b>	<b>57</b>	<b>131</b>
<b>Ethnicity Total</b>				
Hispanic / Latino				66
Non-Hispanic / Latino				2
Prefer not to respond				6
<b>Unknown</b>				<b>57</b>
<b>Race</b>				
American Indian or Alaskan Native				1
Asian				0
Black or African American				9
Native Hawaiian or other Pacific Islander				0
White				23
Prefer not to respond				19
<b>Unknown</b>				<b>79</b>

**A**t the beginning of each series, program staff sent participating adults a link to a family demographic card where they entered age, race, ethnicity, and gender information for each participant in their family. A total of 131 individuals participated in at least one Family Cook Night class (see demographics in Table 1). Sixty-nine individuals participated in the English sessions, and 62 participated in the Spanish sessions.

Thirty-nine families participated in at least one session of a Family Cook Night series. Each family present at the first class was sent a link to complete one pre-survey per family before any interventions took place. Each family present at the final class of the four-class series was sent a link to complete a post-survey after the last class of the series. An individual code was generated for each respondent, and a total of 12 pre- and post-

were matched. The evaluation study protocol was reviewed by the UC Davis Institutional Review Board and determined to be exempt (IRB #213961-13). The survey questions were adapted from “My Child at Mealtime” (Ontai et al., 2020) and includes questions related to healthy eating and child feeding habits, such as:

1. MY CHILD SITS AND EATS MEALS WITH AN ADULT
2. I WARN MY CHILD S/HE WILL NOT GET A TREAT IF S/HE DOESN'T EAT
3. IF MY CHILD DID NOT LIKE A FOOD, I AVOID SERVING IT TO HIM/HER AGAIN

After attending the Family Cook Nights, adult survey respondents reported changes to their approach to feeding their children (Table 2). In matched pre- and post-surveys (n=12) 11 of 12 respondents indicated that they made at least one positive behavior change while six reported two positive behavior changes and one reported seven positive behavior changes.

The behaviors that changed the most from pre to post included not offering a treat for eating food (66.67% reported positive change), children eating snacks at the same time every day (33.33% reported positive change) and serving foods to kids again after they reject it the first few times (91.67% reported positive change). The behaviors that did not change from pre to post include preparing at least one food that they are sure their child will eat (0 change reported) and begging their child to eat their food (2 changes reported). For the behaviors that did not change from pre to post, most parents reported positive behaviors at pre-survey already.

**Table 2**

*Family Cook Nights pre and post participant responses*

Questions with the greatest change reported by participants (No/Rarely = 1, Sometimes = 2, Often = 3, Very Often = 4)

Change (Post – Pre)	How many respondents reported this change post-pre	Percent of respondents reporting this change (n=12)
Q1: I warn my child s/he will not get a treat if s/he doesn't eat. (negative number = positive behavior change)		
0 (no change)	4	33.33%
-1	5	41.67%
-2	2	16.67%
-3	1	8.33%
Q2: My child eats snack at about the same time every day. (positive number = positive behavior change)		
0 (no change)	5	41.67%
1	4	33.33%
-1	3	25.00%
Q3: If my child did not like a food, I avoid serving it to him/her again. (negative number = positive change)		
-3	2	16.67%
-2	2	16.67%
-1	4	33.33%
0	3	25.00%

In qualitative data collected from program participants and partners, we received a lot of support for the series. When asked about the class series, this is what a school principal and parent remarked:

- "Our families enjoyed it and had fun. Cooking is community building. We appreciate the thoughtfulness of the food bank and CalFresh [UCCE]". - Liberty Elementary School Principal
- "Gracias a ustedes por la información que dan a la comunidad para estar más saludables" Thank you for the information you give to the community to be healthier". - Participating Parent

Additionally, UCCE educators debriefed using a plus-delta self-assessment process facilitated by the program supervisor to engage in a group reflection and identify areas for continuous improvement after each programming week. This procedure was submitted to the UC Davis Institutional Review Board and determined to be

research not involving human subjects, IRB review is not required (IRB # 1956450-1). Plus-delta methodology is used in the healthcare field as a debriefing strategy where participants are asked to reflect on their individual or collective performance (Cheng, Eppich, Epps, Kolbe, Meguerdichian et al., 2021). Plus-delta is easy to implement and promotes capacity for self-assessment and improvement. In this plus-delta process, educators identified things that worked well to maintain and build upon in the classes (plus) and opportunities for improvement (delta), are presented in Table 3.

**Table 3**

*Plus-Delta with UCCE staff delivering Family Cook Nights*

<b>Plus</b>	<b>Delta</b>
“Good participation/engagement: Participants shared ideas, questions, and had cameras on”	“Spread out lessons 2 days per week”
“No need for transportation or childcare”	“Add more questions for interaction”
“Liked the info that was discussed; several parents were surprised by sugar content; felt that talking about family mealtimes is very important”	“When taking screen shots ask participants to focus their camera on the food (pin their video for a better image). This is especially important if participants do not have a photo release on file”
“Recipe worked well, and parents were surprised their kids ate the salad”	“Survey is difficult to fill out (opening a link from the Zoom Chat, creating an ID, understanding the questions)”
“Participants liked learning about food safety”	“Lack of direct communication with participants (for reminders/updates)”
“Promotion/recruitment through school and trusting their methods”	
“Families enjoyed the recipes and liked that they could participate from the comfort of their own home”	
“I love seeing the whole family participating”	

## SUMMARY

Overall, the virtual Family Cook Nights Series supported at least one healthy change in almost all the responding parents’ child feeding behaviors, offered families the opportunity to practice cooking healthy recipes together, and promoted inclusion of male caregivers in the feeding process. Additionally, it created the opportunity for UCCE educators to serve community members that otherwise they may not have been able to serve due to lack of transportation, time, childcare, and COVID-19 restrictions.

## SUSTAINABILITY

At the beginning of the 2021-22 academic school year, three qualifying sites participated in a new series of Family Cook Nights with positive feedback on the virtual model; remarks from the UCCE team, “families enjoyed the recipes and liked that they could participate from the comfort of their own home” and “I love seeing the whole family participating.” The virtual series not only helps meet community needs but keeps families and staff safe as the COVID-19 pandemic persists.



## SUSTAINABILITY

**W**e anticipate that the increase in awareness of our virtual Family Cook Nights at our partnering sites will continue to drive more community members to attend our series. In addition, the UCCE team is working on bringing more qualifying sites to support this program, will continue to innovate and support enhancing equitable access to Family Cook Nights in Santa Barbara County, and stay responsive to community needs.



[You may click here to access the references, tables, and graphs for this article.](#)



[You may click here for the Table of Contents](#)

## COOKING TOGETHER (VIRTUALLY) TO BUILD COMMUNITY AND PROMOTE HEALTH DURING COVID-19

### REFERENCES

Arguelles, P., Williams, S., Hemley-Bronstein, A., Edwards, D., Aguilar, T., Arias Soto, A., Willams, E., & Mejia, P. (n.d). Language Justice Toolkit. [https://nesfp.org/sites/default/files/resources/language\\_justice\\_toolkit.pdf](https://nesfp.org/sites/default/files/resources/language_justice_toolkit.pdf)

Blanchet, R., Loewen, O., Godrich, S., Willows, N., & Veugelers, P. (2020). Exploring the association between food insecurity and food skills among school-aged children. *Public Health Nutrition*, 23, 2000-2005. doi:10.1017/S1368980019004300

Cheng, A., Eppich, W., Epps, C., Kolbe, M., Meguerdichian, M., & Grant, V. (2021) Embracing informed learner self-assessment during debriefing: the art of plus-delta. *Adv Simul* 6, 22. <https://doi.org/10.1186/s41077-021-00173-1>

Coleman-Jensen, A., Rabbitt, M.P., Gregory, C.A., & Singh, A. (2021). Household Food Security in the United States in 2020, ERR-298, U.S. Department of Agriculture, Economic Research Service.

James, N., & Thériault, V. (2021). Reimagining community and belonging amid COVID-19. *Studies in the Education of Adults* 53:1,1-3. <https://doi.org/10.1080/02660830.2020.1811474>

James, N., & Thériault, V. (2020). Adult education in times of the COVID-19 pandemic: Inequalities, changes, and resilience, *Studies in the Education of Adults*, 52:2, 129-133. <https://doi.org/10.1080/02660830.2020.1811474>

Jansen, P.W., Derks, I.P.M., Mou, Y., van Rijen, E., Gaillard, R., Micali, N., Voortman, T., & Hillegers, M. (2020). Associations of parents' use of food as reward with children's eating behavior and BMI in a population-based cohort. *Pediatric Obesity*. 15:e12662. <https://doi.org/10.1111/ijpo.12662>

Ontai, L., Sitnick, S.L., Sylva, K., Leavens, L., Davidson, C., & Townsend, M.S. (2020). "My Child at Mealtime" for 3 to 5-year-old children. Questions adapted from University of California Cooperative Extension (UCCE).

Wolfson, J. A., & Leung, C. W. (2020). Food Insecurity and COVID-19: Disparities in Early Effects for US Adults. *Nutrients*, 12(6), 1648. MDPI AG. Retrieved from <http://dx.doi.org/10.3390/nu12061648>

University of California Agriculture and Natural Resources. (2022). CalFresh Healthy Living, UCCE, County of San Luis Obispo. <https://cesanluisobispo.ucanr.edu/uccalfreshslosb/>