

UNIVERSITY OF CALIFORNIA cal fresh Nutrition Education



UCCE San Luis Obispo and Santa Barbara

SUCCESSES

- Supported evidence-based nutrition education curricula in 170 classrooms for more than 1,970 class sessions.
- Supported the building, reinvigoration or maintenance of 8 school and 2 community gardens.
- Provided positive youth development programming and leadership skills with 97 4-H SNAC youth.



RESULTS

- 69% of participating educators report that, compared to the beginning of the year, they now remind families to bring healthy snacks for school parties.
- 78% of youth leaders report that they believe they can help make their school a healthier place.
- 30-point improvement in environmental scan score using the SHC2 tool at 1 new partner school site.

IMPROVING CALIFORNIA'S HEALTH THROUGH SNAP-ED

County Statement:

The UC CalFresh Nutrition Education Program of Santa Barbara and San Luis Obispo (SLOSB) counties collaborates with school-based partners, students, teacher extenders, parents and volunteers to provide comprehensive research-based nutrition and physical activity programming in low-income communities. Recognizing that nutrition and physical activity behaviors are dependent on many factors including individual knowledge and skills and social determinants including access to resources, opportunities and regional and institutional policies, SLOSB works with partners to identify and address barriers to health and wellness. The mission of SLOSB and the Youth, Families and Communities 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, & connected Central Coast.

Serving Individuals and Communities

- Providing comprehensive research-based nutrition education services to school communities including: 6,440 youth and 90 adults
- Preparing youth leaders to be healthy living advocates and civically involved adults through positive youth development programming
- Training 12 public housing residents to provide support and education in community gardens.

Helping to Make Organizational and Environmental Changes

- Engaging youth to identify and advocate for healthy changes in their communities.
- Building community support for school gardens, improved P.E. programming, and increased access to and appeal of fruits and vegetables through the school meal program.

Serving California Agriculture

- Promoting farm to school connections, and working to increase the use of CalFresh benefits at local Farmer's markets.
- Working with Food Banks to sample farm fresh, gleaned produce with lowincome residents.

Building Partnerships

- With UCCE programs we are increasing access to 4-H Youth Development programming and Master Food Preserver and Master Gardener expertise in underserved communities.
- With public housing, local businesses, and national funders creating support for edible gardens.



UCCE San Luis Obispo & Santa Barbara 805-781-5951

UC CalFresh Annual Report San Luis Obispo and Santa Barbara Counties

A. SNAP-Ed Program Overview

During Federal Fiscal Year (FFY) 2018, the UC CalFresh Nutrition Education Program of San Luis Obispo and Santa Barbara Counties (SLOSB) built on the comprehensive, school-based nutrition education program model started in FFY 2014. Primary goals of comprehensive school-based programming are to: 1) Increase consumption of healthy foods and beverages, 2) Increase physical activity, and 3) Create sustainable, evidence-based environmental changes that support wellness in surrounding school communities. Collaborative programming with the UC 4-H Youth Development Programs (4-H YDP), resulted in 1) Enhanced youth engagement efforts focused on creating systems and environmental changes and 2) Increased adult volunteer programming focused on creating and sustaining school gardens.

Outcomes related to Integrated Work Plan objectives for San Luis Obispo and Santa Barbara Counties include providing direct nutrition education services to 6,440 youth and 90 adults, and indirect education to over 70,000 participants. SLOSB partnered with qualifying schools to provide SNAP-Ed approved curricula aligned with CA state standards using an Educator Extender model, implemented through enrolled Educator Extenders (Extenders). Extenders received "No-Prep" Nutrition Education Curriculum Kits. UC educators provided technical assistance and support to Extenders through hands-on lesson delivery in the classroom, including a minimum of one introductory lesson and three food demonstrations throughout the school year.

• In San Luis Obispo County, related to the three-year Integrated Work Plan objective #1:

By September 30, 2019, 22 low-income pre-K-12 schools will make changes to school policies, physical environment, and/or systems to support improved nutrition and physical activity behaviors among students, parents, and teachers.

SLOSB focused on providing support for Policy, System, and Environmental (PSE) changes through enhancing and reinvigorating community and school gardens at 7 SNAP-Ed qualifying sites and providing garden enhanced nutrition education services through the UC Garden Nutrition Extender (UC GNE) program. In FFY18, SLOSB focused garden nutrition education training efforts on new programming in collaboration with the People's Self Help Public Housing (PSHH). SLOSB was approached by PSHH staff to provide training and technical support for the planning, installation and community capacity building to teach in and grow food in two new community gardens. In addition, SLOSB staff collaborated with the 4-H Youth Development program in San Luis Obispo county to provide integrated nutrition and healthy living youth engagement services through the Oceano 4-H Student Nutrition Advisory Council (SNAC) club reaching 12 youth leaders.

• In Santa Barbara County, related to the three-year Integrated Work Plan objective #1:

By September 30, 2019, with a focus on community and youth engagement strategies, work with applicable stakeholders and sectors to increase availability and accessibility of healthy foods, beverages and physical activity and decrease availability of less healthy foods and beverages in a minimum of three eligible communities.

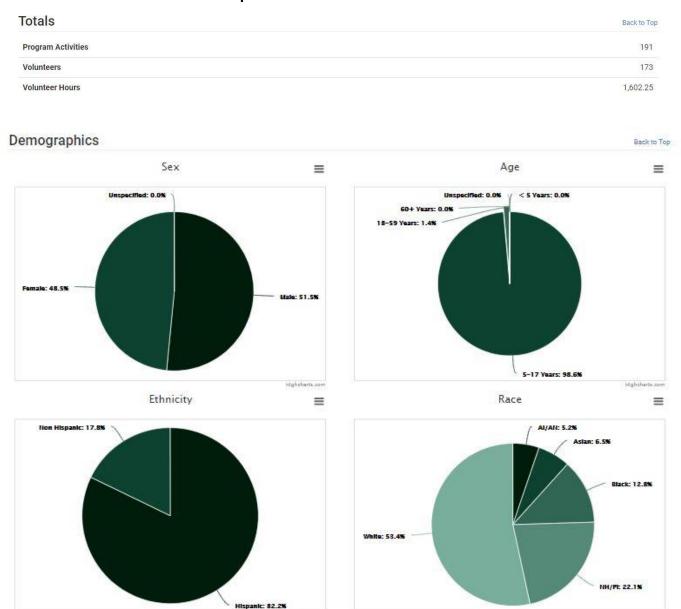
SLOSB provided comprehensive nutrition education services with a focus on youth engagement strategies in four SNAP-Ed eligible school communities through direct education, indirect education, and policy, systems and environmental (PSE) change supports in the garden and cafeteria. Using the comprehensive "schools as hubs" model, SLOSB supported curriculum implementation in 136 classrooms with teacher extenders and volunteers providing a total of 1,323 hours of nutrition education delivery. Four after school 4-H SNAC Clubs were supported through integrated UC CalFresh and 4-H Youth Development programming reaching 97 student leaders.

Lastly, SLOSB Physical Activity lead staff trained Santa Maria High School students and City of Santa Maria Recreation & Parks staff in the CATCH P.E. curriculum. These trainings resulted in the expansion

of structured, evidence-based physical activity curricula implementation at 9 summer food sites reaching at least 1,497 youth.

B. Summary Results from the Program Evaluation and Reporting System (PEARS)

i. SNAP-Ed Direct Education Participants FFY 2018



Highcharts.com

UC CalFresh Annual Report San Luis Obispo and Santa Barbara Counties



Number of Direct Education Participants (unduplicated) by Age Group and Sex

Age	Female	Male	Actual Count	Estimated Count	Total
Less than 5 years	0	0	0	0	0
5-17 years	3,094	3,346	32	6,408	6,440
18-59 years	69	20	16	73	89
60 years or older	1	0	1	0	1
Total	3,164	3,366	49	6,481	6,530

Number of Direct Education Participants (unduplicated) by Ethnicity and Race

		Actual Count of SNAP-Ed Participants	Estimated Count of SNAP-Ed Participants
	Hispanic/Latino	46	5,142
Ethnicity	Non-Hispanic/Latino	3	1,120
	American Indian or Alaska Native	0	54
	Asian	0	67
Race (select one or more)	Black or African American	0	133
one or more,	Native Hawaiian or Other Pacific Islander	0	229
	White	39	514
	Total	49	6,262

ii. SNAP-Ed Direct Education Delivery by Programming Format Direct Education - Characterizing Education Session Format, Delivery, Time

	A. Number	B. Time Range		
Format	Delivered	Session (in minutes)	Number of Sessions	
		□ 0-30	1	
		□ 31-60	51	
1. Single Session	56	□ 61-90	0	
		□ 91-120	0	
		☐ Over 120	4	
		□ 0-30	1	
		□ 31-60	89	
2. Series of 2 to 4 Sessions	35	□ 61-90	6	
		□ 91-120	9	
		☐ Over 120	4	
		□ 0-30	14	
	20	□ 31-60	86	
3. Series of 5 to 9 Sessions		□ 61-90	8	
		□ 91-120	35	
		☐ Over 120	0	
		□ 0-30	863	
		□ 31-60	819	
4. Series of 10 or More	80	□ 61-90	82	
		□ 91-120	410	
		☐ Over 120	6	

iii. SNAP-Ed Delivery by Site Setting

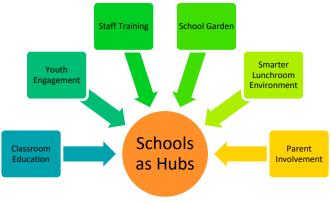
List of Settings	# of Sites with DE reported	# of Sites/Org with PSE Activity (any stage)
Public housing sites	3	2
Schools (preschools, K-12, elementary, middle, and high)	10	11
Afterschool programs	1	
Food banks and pantries	1	
Parks and Open Spaces	1	
USDA Summer Meal Sites	9	

C. Program Highlights and Accomplishments for FFY 2018

i. Ongoing and New Projects that were Operational During the Reporting Year Identified by Primary Approach

During FFY18, SLOSB continued to implement and institutionalize the "Schools as Hubs of Health" model of comprehensive nutrition education program delivery. SLOSB implemented comprehensive nutrition education and obesity prevention services at four large school sites in Santa Barbara County and one school site in San Luis Obispo County. The components of the "schools as hubs" comprehensive model include direct education (DE) indirect education (IE) and support for Policy, Systems, and Environmental changes (PSE).

The classroom education (DE) component of the "schools as hub" model includes K-6th nutrition and physical activity No-Prep curriculum kits provided to enrolled Extenders along with curriculum support and in-class lessons and food demonstrations provided by UC Educators. In FFY18, SLOSB partnered with 178 classrooms, reaching over 6000 youth. Adult extenders and youth volunteers provided over 1300 hours of nutrition education delivery. Most (42%) of the education sessions delivered were part of a series of 10 or more sessions (see table in section ii above). Additional



education and support for garden nutrition education lessons were provided in the outdoor classroom where available.

"I don't like tomatoes but I am going to ask my mom to get me a tomato. I am going to try two bites!" – 2nd grader after a classroom lesson with the story, The Two Bite Club

The youth engagement component (DE, IE, PSE) included a focus on developing youth leaders through five afterschool 4-H Student Nutrition Advisory Council (SNAC) clubs. As a result of the collaborative programming, 109 youth in 5th and 6th grades participated in ongoing, in-depth youth engagement training and youth led projects that prepared them to provide direct peer-to-peer programming. SLOSB provided over 145 hours of youth engagement programming with 4-H SNAC students. Training included presentation skills, nutrition education delivery, food safety, and physical activity components (utilizing the CATCH curriculum) aimed at increasing youths' capacity to lead lessons. These trainings occurred during weekly SNAC meetings afterschool throughout the project period, and a 6-hour Saturday leadership training in November 2017. In addition, 4-H SNAC youth participated in Spring break culinary academies that were hosted in collaboration with 4-H and the Santa Maria-Bonita School District.

"I tried the recipe for the omelet at home and made it for my family. They liked it!"

- 4-H SNAC Leader who tried one of the recipes from the Culinary Academy with their family

The staff training component (DE, PSE) included trainings for classroom educators, cafeteria staff, Parks & Recreation staff, and high school students that deliver P.E. lessons to younger students. The trainings included 1) modelling curriculum delivery and food safety for classroom educators, 2) providing CATCH P.E. training to youth and adult extenders, 3) modelling garden enhanced nutrition education lesson and curriculum delivery and 4) providing Smarter Lunchroom Movement training and technical assistance for cafeteria staff.

The school garden component (DE, PSE) included 1) enlarging or enhancing existing school gardens, 2) delivering nutrition education from the garden, 3) providing curriculum kits for teachers to use in the garden and 4) supporting farm to fork connections between the garden and the cafeteria. In FFY18, SLOSB incorporated garden lessons at every grade level and hosted garden days for teachers to signup to bring their class out to the garden for a nutrition lesson. The goal of this effort was to increase teacher familiarity and excitement with their school garden and demonstrate how the classroom can be

managed and instructional benefits can be seen out in the garden. SLOSB supported the building, reinvigoration, and/or maintenance of 8 school gardens.

"The garden has really brought our community together. I have had so many people (parents and community members) step up to help us build and create. I am very excited to fully complete the project and see what this school year will bring! The garden has introduced a variety of vegetables to children that don't normally eat a wide variety at home. This year we have also had a parent create a health and wellness council for our school. The focus is making sure all of our children are exposed to healthy food and wellness choices and that teachers and staff are taking time to make those same great choices." – Parent Champion at Baywood Elementary

The Smarter Lunchroom Movement (PSE) component included front line cafeteria staff training and working with SNAC leaders to promote school food and survey peers about different produce and menu items tasted in the cafeteria. The 4-H SNAC club at Bruce Elementary partnered with the Cafeteria Manager to update their menu board on a daily basis. The Cafeteria Manager now expects students to be responsible for this role and is building relationships and communication with the youth leaders. In addition, all 4-H SNAC clubs work to promote monthly tastings and collect student feedback in partnership with food service.

The parent involvement component included 1) sending parent letters and recipes home with the students that relate to the nutrition topic discussed by the classroom teacher or UC Educator (IE), 2) offering after school garden nutrition education, and Family Nights, (DE) and 3) providing monthly food demonstrations at the Healthy School Pantry food distribution (DE, IE). SLOSB worked to support Garden Days at two school sites where parents were invited to come work in the garden and take produce home with them (IE, PSE).

Additional physical activity programming included training high school students and Santa Maria City Recreation and Parks staff in CATCH P.E. concepts and activities. High school students led P.E. classes at Adam Elementary with a focus on inclusion and increasing moderate to vigorous physical activity. Recreation and Parks staff led summer fun physical activity events during the Summer Food Program in Santa Maria, CA.

ii. Program Successes and Major Achievements

The major successes and program achievements during FFY18 include: 1) developing a new partnership with public housing sites to implement garden enhanced nutrition education services and supports, 2) increasing school wellness initiatives in San Luis Obispo county through modelling and training others on the development of site level health councils and safe routes to school, and 3) Development of new school partnerships with early successes in the promotion of student health.

Success #1

The new partnership with People's Self Help Housing resulted in the planning, development, building, and maintenance of community gardens at two public housing sites across both counties. PSHH approached SLOSB for support and technical assistance on their Whole Kids grant application and in training residents in garden enhanced nutrition education. SLOSB worked with PSHH to gather resident feedback and interest in the community gardens, what they would like the garden to look like, how they envisioned it would be maintained, who would use the garden and what would happen with the produce.



PSHH Residents and SLOSB staff work together to learn about planting with the seasons.

Following the construction of the gardens, UC staff provided five hours of garden enhanced nutrition education training to adult residents that showed interest and leadership around the community garden and an additional 3-hour training to People's Self Help staff. The resident training, conducted in Spanish,

was based on the Fresh from the Garden curriculum and was developed in collaboration with the UC Master Food Preserver Program. Training topics included planting with the seasons, basic nutrition, food safety, and presentation skills. Participants were surveyed at the end of the training and gave the training an overall rating of "excellent" and a majority indicated they would use the information in the next day to 6 months. In addition, the 4-H Youth Development staff provided hands-on activities for the children of the training participants.

The 3-hour PSHH staff training focused on hands-on implementation of the Learn, Grow, Eat & GO! Curriculum in the on-site after school and summer program. Staff were provided a No-Prep Nutrition Education kit to continue to implement garden curricula with youth.

Following the trainings, a garden committee was created for staff and residents to sign-up to take youth out to the garden and to use the garden to grow and plant. Four months later the on-site staff are continuing to ask for supplies and support on implementing lessons and food demonstrations for students. In one lesson, PSHH staff demonstrated how to make a spinach quesadilla and salsa made from tomatoes and onions harvested from their garden.

"Lots of tomatoes are coming in and getting picked and eaten!" - PSHH Educator

Success #2

In San Luis Obispo County, SLOSB has been focusing efforts on supporting school wellness initiatives through the development of site level school health councils. In FFY18, the San Luis Coastal District Wellness committee asked SLOSB to present and train members of the committee on developing a school site committee. In addition, having a site level committee was highly encouraged at school sites as a condition of participating on the District School Wellness Committee.

SLOSB provided training and technical assistance to school partners including teachers and parent volunteers on best practices and resources for school health councils at district-wide meetings and one-on-one meetings with interested parent volunteers. These efforts have resulted in at least 3 new school site committees implemented in the district with the focus on site implementation and support for the district wellness policy.

In addition, SLOSB partnered with a community advocacy group working to promote safe routes to schools in a local neighborhood adjacent to two low-income schools. SLOSB provided technical assistance and data to support the advocacy efforts of the community group in promoting active and safe transportation to two schools in San Luis Obispo. After a long and dramatic fight, the City Council ultimately voted in favor of the Safe Routes to School plan which will increase the safety and desirability of active transportation to school impacting transportation modes for two school communities in San Luis Obispo.

Success #3

During FFY18, SLOSB developed and enhanced new partnerships at two new school sites for the implementation of the comprehensive school health model. This type of intensive nutrition education programming requires a strong commitment from school partners to dedicate class time, school resources, and efforts toward promoting health, nutrition, and physical activity on campus.

The enhancement of the partnership at Oceano elementary included opening up curriculum support to additional grade levels, developing an after school 4-H SNAC club, and strengthening partnerships with food service, a local farm and a local non-profit. During FFY18 additional teachers signed up to be



4-H SNAC student show off their first harvest at Liberty

Elementary.

Extenders and the 4-H SNAC after school club provided classroom nutrition, garden and mindfulness

education to their peers. In addition, 4-H SNAC and SLOSB developed a partnership with a local farmer to learn about running a farm business and practice growing and eating on a commercial farm. 4-H SNAC students and parent volunteers would ride bikes or walk to the farm after school to meet with the farmer and a UC Garden Nutrition Educator volunteer. Students learned about planning, planting, irrigation and the business side of farm operations.

The development of a new partnership at Liberty Elementary in Santa Maria during AY 1718 kicked off health and wellness efforts at their school including nutrition education, 4-H SNAC youth development, and the planning and building of a new school garden. In FFY18, SLOSB staff and the Vice Principal from Liberty Elementary discussed the need for a school garden. The vice principal was immediately enthusiastic and championed the effort, getting approvals from the district, working with teachers to get support and submitting work orders to request garden beds and fencing.

SLOSB staff worked with student leaders in the 4-H Student Nutrition Advisory Council club to gather feedback and input on the garden design and sustainability. 4-H SNAC student leaders were enthusiastic and supportive of building a school garden and gave insightful feedback on how it should be used and structured.

The garden was built in the spring of 2018, designed by students and the vice principal and constructed by the district Maintenance and Operations. Once the beds were completed, SLOSB staff worked with 4-H SNAC students along with a few other classes to prepare and amend the soil and install a timed irrigation system. Students then came out to the garden to plant their first ever spring/summer crop.

Many people within the school community have stepped up to volunteer in caring for and maintaining the garden. Over the summer the growth from their first crop was impressive and the garden has become the entire school's pride and joy. In the fall of 2018 Liberty has harvested approximately 50 pounds of organic cabbage, 100+ pounds of squash (yellow crookneck and Zucchini), 10-15 pounds of tomatoes, at least 2 dozen hot peppers, several watermelons, and two full garden beds of 8-foot-tall popping corn stalks. Everyone is very excited and very proud of how their new garden is growing. The vice principal has been able to go into the garden every couple week for a large harvest, which he puts out on a table for the students and families to bring home to eat.

This partnership resulted in a 30 point improvement in the Shaping Healthy Choices Self-Health Check score from pre to post intervention at Liberty Elementary.

iii. Partnerships and Coalitions

Partnerships – Receive No Direct SNAP-Ed Funding but are Involved in SNAP-Ed Programs

Partner Title	A. Number of Partners You Work With this Reporting Year	B. Assistance Received If Applicable (Use Codes)	C. Assistance Provided If Applicable (Use Codes)	D. Intervention Type(s) With Partner's Involvement (DE, SM, and/or PSE) (Select All That Apply)
Agricultural organizations (includes farmers markets)	1	S, T	н	DE
Early care and education facilities (includes child care centers and day care homes as well as Head Start, preschool, and pre-kindergarten programs)	1	Н, І	C, E, H, M, T	DE, PSE
Food banks/food pantries	3	C, H, M, P, R, S	C, E, H, I, P	DE, PSE
Foundations/philanthropy organizations/nonprofits	1	A, C, H, P	A, C, H, P	DE, PSE

Partner Title	A. Number of Partners You Work With this Reporting Year	B. Assistance Received If Applicable (Use Codes)	C. Assistance Provided If Applicable (Use Codes)	D. Intervention Type(s) With Partner's Involvement (DE, SM, and/or PSE) (Select All That Apply)
Government program/agency (Federal, State, local, etc.)	7	A, C, D, E, F, H, I, M, O, P, R, S, T <u>View Others</u>	C, D, E, F, H, I, M, P, R, T	DE, PSE
Parks and recreation centers	1	E, H, I, R, S	C, H, I, M, T	DE, PSE
Schools (preschools, K-12, elementary, middle, and high)	15	A, E, H, I, M, P, R, S	C, E, F, H, I, M, P, T	DE, PSE
Schools (colleges and universities)	1	E, H, I, P, R	E, I, M, P, T	DE, PSE
Total	30	N/A	N/A	N/A

All of the SLOSB work plan goals and achievements are dependent upon strong partnerships and

collaborations both within UCCE and with external partners. In addition to the partnerships mentioned above under program successes, key partners continue to be schools and teachers, the SLO and SB County Food Banks, other UCCE programs, and the Santa Maria THRIVE Healthy School Pantry. Major partnership accomplishments include: 1) educating difficult to reach parent populations at the Healthy School Pantry, 2) integrating UCCE programming to better serve our clientele with more comprehensive programming, and 3) making a small but meaningful change with Santa Maria Parks and Recreation through the Rethink Your Drink Day.

The THRIVE Healthy School Pantry is a monthly food distribution and resource fair for families in specific school communities in Santa Maria. Every month UC Educators and 4-H SNAC student leaders from Bruce Elementary work with pantry organizers to coordinate food demonstration recipes with the foods families will be receiving in the distribution. 4-H SNAC student leaders often participate in the recipe preparation and education with families about nutrition. Through this partnership, SLOSB reaches 200 families each month through direct education and oneon-one conversations with parents and indirect education including sampling and receiving a healthy recipe that they can make at home with the food provided. Every month, SLOSB engages parents in meaningful discussions around family health and nutrition, including



4-H SNAC students preparing a recipe at Healthy School Pantry

food safety; lower fat food preparation methods, MyPlate, low sugar beverages, and physical activity. Parents regularly tell SLOSB Educators that they are grateful for the information their children are learning through the nutrition education programming provided at their schools. The Healthy School Pantry allows SLOSB to close the communication loop with youth and their families and to reinforce the health messaging delivered during the school day with families. A majority of the families that attend the pantry are Spanish or Mixteco speakers. In one quote obtained by SLOSB educators, a participant tells how they have learned to prepare foods without adding as much salt and fat and that they see they can get the protein and nutrients they need without as much meat.

"Por mi cultura estamos acostumbrados a preparar recetas añadiendo mucha grasa y sal. He estado aprendiendo que si se puede cocinar sin necesidad de agregar mucha sal y también de reducir las porciones de carne. Hoy aprendí como preparar unos Chicharos Tiernos Asados y también como puedo obtener los nutrientes y proteína necesarios de esta receta fácil y barata de preparar"

"In my culture, we are accustomed to preparing recipes with a lot of fat and salt. I have been learning that you can cook without needing to add so much salt and also learning how to reduce our portion sizes of meat. Today I learned how to prepare the Roasted Green Beans and also how I can get the nutrients I need and protein we need with this easy and economical recipe."

- Healthy School Pantry Participant

And another parent, highlighting the importance of reinforcing the messages at home:

"Cuando quiero ponerle manteca a los frijoles ella me ha dicho que mejor use aceite. Y pues como le digo que no?" "When I want to put lard in the beans she is telling me that it is better to use oil. And well, what am I going to tell her, no?"

Partnerships within UC Cooperative Extension programs in San Luis Obispo and Santa Barbara counties have led to successes in youth development and enhanced the credibility and expertise of our programming. SLOSB continues to partner with 4-H Youth Development to provide youth engagement programming in health and nutrition to communities that have not historically received 4-H programming or resources. Through this partnership, youth are able to access University resources and develop youth-adult partnerships that have been shown to have major impacts on their lives. In addition, SLOSB partners with Master Food Preservers to offer high quality trainings in food safety, food safety in the garden, and basic food preservation techniques for food resource management. These classes have been highly popular with external partners and clients. Lastly, SLOSB partners with Master Gardeners in order to consult on growing practices, pest management, and irrigation. SLOSB utilizes space in the Master Gardener garden on-site for trainings and for growing produce that can be used in classroom food demonstrations. The result of this integrated programming is that SLOSB is able to provide more meaningful, evidence-based resources and information to populations that may not otherwise have contact with the University.

Finally, as part of the statewide Rethink Your Drink Day, SLOSB reached out to many community partners to provide resources and access to materials so that they were able to participate. One of our partners in Parks and Recreation was hesitant to promote low sugar beverages due to their partnership with Coca Cola and the fact that they sell sugary drinks at nearly all of their parks. SLOSB reached out to the UC CalFresh state office for guidance on how to proceed and what messaging would allow the partner to see the benefit of promoting healthier options to their clients and community residents. After consulting with statewide agencies, messaging was put together and relayed to this partner who then agreed to register and host their own Rethink Your Drink day at a location that serves children ages 6 through 12. This was a breakthrough because SLOSB has had many conversations with stakeholders at this agency about the health impacts of sugary beverages, how to competitively market healthier, low-sugar options and they have been reluctant to change. Getting them on board, with the help of state level partners, is one step in the right direction for the community we serve.

iv. Major Setbacks and/or Challenges

The primary challenges and setbacks during FFY18 include the distance between the UCCE office and a majority of SLOSB programming and the uncertainty surrounding SLOSB staffing and program expansion. While we have funds in our budget to pay for an additional office space in Santa Maria and additional staff to expand programming, SLOSB has not been able to implement an appropriate supervisory structure as we wait for the UC ANR statewide staffing plan and necessary approvals. Going into FFY18, SLOSB had the intention of growing the program and hiring a manager, supervisor and education staff along with opening an office closer to programming. After recruiting and identifying candidate for the manager, ANR leadership indicated they were not supportive of the proposed staffing without first reviewing the system wide staff plan. This delay has had major impacts that continue to be felt within SLOSBs team and programming. Staff are left with a feeling of uncertainty around their supervisory structure, and a lack of confidence at the prospect of moving offices and/or expanding programming. While staff have been flexible and resilient, this has taken a toll on team morale and trust of human resource processes within our program. Of equal consequence is the impact this has had on our ability to meet community and school needs. We have been unable to provide programming at

identified schools where we were sent to expand. Likewise, we are unable to meet additional requests from programming we received during the last year.

Another barrier or difficulty in implementing comprehensive nutrition education services is that staff are asked to be experts in a broad cross-section of information and skills. Classroom nutrition education requires staff to be proficient in community nutrition and USDA Dietary Guidelines along with classroom management, food safety, culinary skills, and food shopping. With the addition of PSE change work, staff also need to have skills in community or youth engagement, advocacy, training, community assessment, communication with partners, etc. Staff have communicated that they are often overwhelmed with the wide range of site-level responsibilities. Currently the Community Education Specialist 2 position description requires only an Associate's Degree or equivalent training or experience. In the past, SLOSB has had difficulty when we have hired staff that met only the minimum educational requirements because they were not able to successfully fulfill job duties including implementing complex nutrition curricula like the Shaping Healthy Choices Program. Given that CES 2s are required to 1) provide classroom education and training to teachers with a minimum of a Bachelor's degree plus teaching credential and 2) that they are also required to implement complex public health programming in community settings, the job classification and level of pay do not currently match the knowledge, skill and experience required to successfully implement comprehensive programming. The impact of this on SLOSB programming is staff turnover which results in lower quality programming. CES 2s do not see their position as a career path and have told their supervisor that they love their job and would stay forever if it paid a livable wage. Currently, at least one SLOSB CES 2 staff is in the process of getting their teaching credential and others are looking into graduate programs so they can progress in their career and pay. During FFY18, SLOSB lost one highly experienced CES 2 as well as a Assistant I to higher-paying jobs. Looking to the future, SLOSB will have difficulty maintaining high-quality programming while losing experienced CES 2s.

Possible solutions to these complex issues include reclassifying the CES 1or 2 position to increase minimum education requirements and pay while creating a more complex and appealing career ladder for Nutrition Educators. A move in the right direction includes the creation of the CES 1 / 2 position so that staff can start as a CES 1 and then promote to a CES 2 when they are ready to lead comprehensive services at a site. SLOSB currently has a CES 1 / 2 and has found this mini career progression to be helpful. The possibility of expanding that to a CES 3 and 4 would create more opportunities for promoting within UCCE and retaining our top talent within whom we have invested a lot of resources and training. Strategies that SLOSB has proposed in the past and that are currently in limbo include the CE Manager and CE Supervisor positions. By making these positions a permanent part of the UCCE career ladder, this would expand opportunities for internal career advancement that, currently, do not exist. In addition, these additional positions will provide support for expanding our in-depth, high-quality UC CalFresh programming. With stipends in place, we were able to increase the Supervisors' administrative role in the management of the UC CalFresh programming. Which allowed the UCCE Advisor to take more of an academic role in the programming.

Lastly, with increasing focus on Common Core and Next Generation Science Standards, there is very little sense of urgency for schools to ensure they are meeting requirements for health and nutrition education. Advocacy at the state level and revision of state standards to include an emphasis and urgency on health and nutrition education would allow our program to gain more prominence and support on school campuses and allow teachers more time to implement evidence-based curricula. Given the current state of the obesity epidemic and the direct connection between nutrition, physical activity and learning, we continue to be surprised that schools are not more concerned about ensuring students receive evidence-based instruction in health and nutrition.

v. Program Needs Not Addressed and Why

Santa Barbara County – Seventy-five schools in Santa Barbara County, including 19 in the Santa Maria-Bonita School District (SMBSD) qualify for SNAP-Ed services; however, we currently only serve four of those schools with direct education. UCCE is the only comprehensive nutrition education program that provides direct SNAP-Ed services to Santa Barbara County school children. Our LHD partner (the only other LIA in SB County) does not have staff to provide direct nutrition education to youth and are focused on adult education and higher-level PSE work in the county. Staff from many of the SMBSD schools have

specifically requested services that we are not currently able to provide including support for on-site Smarter Lunchrooms Movement work and garden nutrition education. While we are limited by our lack of staff, we also lack the room to add additional staff in our current office space.

In addition, SMBSD has a very high rate of Spanish and Mixteco speakers. In 2017-18, 68% of students spoke Spanish at home, and 20% spoke Mixteco at home. SLOSB currently has 2 bilingual (Spanish & English) Community Educators and no staff that speak Mixteco. Since parent and family involvement are a key piece to comprehensive nutrition education services, we are missing out on opportunities to serve many of the families that attend partnering schools.

San Luis Obispo County - Starting in FFY17, SLOSB redesigned the service delivery model for SLO in order to meet the unique needs of this county and the request for more school garden technical assistance and support. The UC Garden Nutrition Extender (UC GNE) Program was developed in response and has created new opportunities and inroads in several SNAP-Ed qualifying schools. Currently SLOSB serves one school site with comprehensive nutrition education programming and has received requests for support at an additional three schools that we have not been able to accommodate due to lack of staffing. In addition, UCCE currently has 4-H staff working at two qualifying school sites in San Luis Obispo County and UC GNEs at four additional school sites and UC CalFresh is unable to partner at these sites for comprehensive programming due to lack of staffing. There may be potential opportunities to work with LIAs (LHD) in the future, as there has been some staff turnover and reorganization of priorities. However, in general, when SLOSB trains partners and provides curriculum resources with SNAP-Ed funding trainees enroll as extenders and report nutrition education hours on the Nutrition Activity Reporting Form. Given that SNAP-Ed does not allow duplication of Direct Education activities, there is no mechanism for SLOSB or LIA partners to meaningfully report this type of collaboration activity and partners have been unsure whether this type of work was an allowed use of SNAP-Ed funds and staff time.

Multi-county Education – While SLOSB has taken on additional youth engagement efforts, this has led to a lack of staff availability to provide series-based nutrition education services to parents. At least four school partners and three community partners have requested series-based classes for their parents which staff are currently unable to provide due to current workloads.

In addition, limited availability of evidence-based curricula tailored to the needs of specific populations has limited the ability of our program to reach our full potential. Curriculum needs include:

- Adult education materials and educator guides developed in Spanish, including garden curricula and basic nutrition
- Youth education materials available in Spanish for dual immersion schools currently our curricula
 is a barrier to serving schools that operate in more than one language
- Adult education materials developed for low literacy population and that take into account various cultural ways of learning
- Youth education materials that are tied to the Next Generation Science Standards, ELA, and Math Common Core subjects.

Program Requests to Address Unmet Needs

In FFY16 we asked for the following in order to expand the UC CalFresh Program:

- 1. UC CalFresh Program Manager
- 2. Satellite office space in Santa Maria, with on-site storage
- 3. Two additional Community Education Specialists

For FFY18, SLOSB received USDA approval and funding for additional staff and office space to accommodate this expansion. We currently do not have any guarantees that we will be able to continue the Nutrition Education Manager and Supervisor structure as we await UC ANR statewide staffing plan.

Due to the uncertainty of supervisory support, SLOSB will not execute a contract for an office lease until we are sure we have the necessary supervisory structure in place. We cannot hire additional staff until we have space that can accommodate them.

vi. Trainings

Training Title	Purpose	Number in attendance			
Trainings p	Trainings provided to local partners, extenders and SNAP-Ed participants				
CATCH PE Training – 6 hours	To train summer food program Parks and Recreation staff in CATCH PE concepts and activities	20			
CATCH Physical Activity Training	To train High School students in the CATCH curriculum, activities and concepts	30			
Resident Garden Nutrition Educator Training – 5 hours	To train People's Self Help residents in growing, teaching and eating in the community garden	17			
Classroom Management for Guest Presenters – 3 hours	To train staff, volunteers and partners on classroom management strategies for successful lesson delivery.	10			
Outdoor Classroom Management	To train community volunteers on classroom management in the school garden	13			
SNAC Youth Leader Training – 6 hours	To bring Student Nutrition Advisors from 5 schools together for a day of skill building around: leadership, cooking, presentation skills, gardening and CATCH	120 total (family) 36 students			
SNAC Youth Leader – Culinary Academies (3)	To train SNAC youth leaders in cooking skills, recipe preparation and nutrition	35			
USDA MyPlate and You: A Guide to healthy eating	To provide a basic overview of MyPlate to food service staff in SMBSD	170			
UC CalFresh Nutrition Education Program in San Luis Obispo & Santa Barbara Counties	To give an overview of the UC CalFresh Nutrition Education program to and 4-H SNAC to SMBSD Wellness Committee	10			
Trainings provided to statewide partners					
Nutrition Education and 4-H YDP Collaboration – (Annual 4-H Retreat)	To provide tools and strategies for integrating 4-H Youth Development and UC CalFresh Nutrition Education programming	150			

vii. Conference Presentations and Posters, Publications

Scholarly Journals and ANR Publications

- 1. Soule, K.E., Klisch, S (November 2017). *A Case for Youth Engagement in Nutrition Education.*Journal of Nutrition and Dietetic Practice. Conceptual Article Volume 1(1).
- 2. Bergman, J., Linnell, J., Scherr, R., Ginsburg, D., Brian, K., Carter, R., Donohue, S., Klisch, S., Lawry-Hall, S., Pressman, J., Soule, K., Zidenberg-Cherr, S. (Feb 2018). *Feasibility of Implementing a School Nutrition Intervention That Addresses Policies, Systems, and Environment.* Journal of Extension. Volume 56, Number 1.
- 3. Klisch, S., Soule, K.E. (May 2018). 4-H Building Health Advocacy Skills. 4-H Project Sheet. http://www.ksby.com/story/38277963/free-farmers-market-greets-parents-at-adam-school-open-house

Abstracts

Abstracts included here were blind peer-reviewed and subject to revision.

- 1. Soule, K.E., Klisch, S., Hansen, J., Derickson, D. (submitted July 2018). *Moving Beyond Silos to Reach Traditionally Underserved Audiences: A Look at 4-H SNAC Club* Integrated 4-H and SNAP-Ed Programming. NAEPSDP Conference Proposal.
- 2. Klisch, S., Soule, K.E. (submitted July 2018). From district wellness policy to healthy schools: How to leverage policy for healthy change. Childhood Obesity Conference 2019.
- 3. Soule, K.E., Klisch, S (February 2018). *Engaging Youth in Nutrition Education*. National Child Nutrition Conference Program.
- 4. Melanie A. Gerdes, Anna M. Jones, Jessica D. Linnell, Jacqueline J. Bergman, Chelsey Slattery, David C. Ginsburg, Kelley M. Brian, Chutima Ganthavorn, **Shannon Klisch**, Suzanne Lawry-Hall, Anna Martin, Jona M. Pressman, **Katherine Soule**, Deepa Srivastava, Rachel E. Scherr, Sheri Zidenberg-Cherr (In progress). *Progression through Partnership: Adaptation of the Shaping Healthy Choices Program through Partnership with UC CalFresh*. American Society of Nutrition Conference 2018.

NON-PEER REVIEWED

A: Popular Articles, Newsletter Stories, and UC Delivers

- 1. June 25, 2018. *Alimentación escolar: respaldando la salud de los niños y el Sistema alimentario local.* Blog de Alimentos. http://ucanr.edu/blogs/blogcore/postdetail.cfm?postnum=27719
- 2. June 25, 2018. School food: Supporting healthy kids and local food. UCANR Food Blog. http://ucanr.edu/blogs/blogcore/postdetail.cfm?postnum=27551
- May 25, 2018. Free farmer's market greets parents at Adam School open house. http://www.ksby.com/story/38277963/free-farmers-market-greets-parents-at-adam-school-open-house
- 4. May 2018. Integrated youth, families and communities programming increases health and wellness. UC Delivers.
- 5. April 4, 2018. Students head for the kitchen to see what's cooking at third annual Culinary Academy. http://santamariatimes.com/news/local/education/students-head-for-the-kitchen-to-see-what-s-cooking/article_0d6c4cf7-181c-5212-8c60-aa6332eb1e1e.html
- 6. April 4, 2018. Lompoc Record. *Photos: Culinary Academy teaches Santa Maris spring breakers how to cook.* http://lompocrecord.com/news/local/photos-culinary-academy-teaches-santa-maria-spring-breakers-how-to/collection 93f7127a-1d2f-5e4d-98a0-8e6bbe98e135.html
- 7. April 4, 2018. KSBY TV For these Central Coast students, spring break is a chance to hone their culinary skills. http://www.ksby.com/story/37881666/for-these-central-coast-students-spring-break-is-a-chance-to-hone-their-culinary-skills?clienttype=mobile
- 8. Nov 2017 Univision News Story about UC CalFresh and 4-H programming in Santa Maria-Bonita schools. https://noticiasya.com/washington-dc/2017/11/21/video-los-mas-recientes-esfuerzos-educativos-en-santa-maria/
- 9. Nov 2017 Santa Maria Times article about 4-H SNAC Youth Leader Training http://santamariatimes.com/news/local/an-afternoon-of-learning-at-liberty-school-in-santa-maria/article-cb24798a-2dd0-5317-994c-f1f4411becd7.html
- 10. Nov 2017 Santa Maria Sun article about 4-H SNAC Youth Leader Training http://www.santamariasun.com/school-scene/16802/santa-marias-4h-snac-clubs-provide-nutritional-education-to-lowincome-families/

B: Technical Reports and Curriculum

- Ravalin, D., Klisch, S., Soule, K. Breastfeeding and Family Friendly Workplace Guidance. UC Cooperative Extension in San Luis Obispo and Santa Barbara Counties. July 28, 2018. http://cesanluisobispo.ucanr.edu/files/288734.pdf
- 2. Klisch, S., Tomsen, T., Diaz, M., Soule, K. Four Bean Salad Parent letter grade 1
- 3. Klisch, S., Plascencia B., Soule, K Banana Berry Split Parent letter grade 1
- 4. Klisch, S., Plascencia B., Soule, K. Agua Fresca Parent letter grade 3
- 5. Klisch, S., Tomsen, T., Diaz, M., Soule, K. Apple Oatmeal Power Breakfast Parent Letter grade 2
- 6. Klisch, S., Tomsen, T., Diaz, M., Soule, K. Veggie Scramble Parent Letter grade 3
- 7. Klisch, S., Ravalin, D., Soule, K. Safety of Carrageenan used in Chocolate Milk. Prepared for San Luis Coastal Unified School District Wellness Committee. January 2018.

C: Abstracts and Outreach Materials

- Melanie A. Gerdes, Anna M. Jones, Jacqueline J. Bergman, Kelley M. Brian, Chutima Ganthavorn, David C. Ginsburg, **Shannon Klisch**, Suzanne Lawry-Hall, Jessica D. Linnell, Anna Martin, Jona M. Pressman, Chelsey Slattery, **Katherine Soule**, Deepa Srivastava, Sheri Zidenberg-Cherr, Rachel E. Scherr. *Progress through Partnership: Adaption of the Shaping Healthy Choices Program through Partnership with UC CalFresh.* Poster presented at UC Davis Department of Nutrition Research Update (Feb 2018), UC ANR Statewide Conference (April 2018).
- 2. Santa Barbara County Quarterly Reports http://cesantabarbara.ucanr.edu/Quarterly_Reports/

D. Press Releases Circulated:

- 1. November 2017 Expanding possibilities in 4-H: Youth leaders from low-income communities gather for health and community service
- 2. March 2018 Teaching youth cooking skills for better health
- 3. March 2018 School Garden to Cafeteria Week 2018

viii. Use of Marketing Materials, Websites, Facebook, Blogs, etc.

https://www.facebook.com/uccalfreshslosb

UC CalFresh Nutrition Education Program Facebook page mission is to inspire our community to lead healthier lives through the promotion of evidence-based tips, recipes, and events related to health, nutrition, and physical activity; and to promote UC CalFresh SLOSB projects and successes to current and potential partners, educator extenders, and funding agencies. The primary intended audience is educator extenders, community partners, and SNAP-Ed eligible residents.

We currently have 247 followers.

https://www.facebook.com/elexitoessalud/

The mission of the EI Exito Es Salud Facebook page is to educate Spanish speaking SNAP-Ed eligible residents in SLO/SB counties about low-cost nutrition education obesity prevention services, information and tips. To promote nutrition and physical activity events hosted by partner agencies. To increase community awareness of SNAP-Ed and partner agency brands and services. The primary intended audience are Spanish speaking SNAP-Ed eligible clients in SLO and Santa Barbara counties.

We currently have 286 followers.

ix. Awards Received

- National Extension Association of Family & Consumer Sciences School Wellness Award 1st place Regional, 2nd place National. May 2018. Presented to Katherine E. Soule
- CA4-H Association Excellence in Healthy Living Programming Award State Award. *April 2018*. Presented to Katherine E. Soule
- California State Association of Counties Merit Award for the UCCE Youth, Families, and Communities Program's Co-Creating Youth Advocacy for Healthy Communities. September 2018. Presented to Katherine E. Soule

D. Key Evaluation Outcomes

In order to evaluate progress toward achieving SNAP-Ed goals, SLOSB is reporting on key outcome indicators from the SNAP-Ed Evaluation Framework including individual short term (ST1) and medium term (MT1) outcomes related to healthy eating environmental and settings short term (ST5), medium term (MT5) and term 5&6) long (LT related outcomes to healthy eating and physical activity.

Youth Program Evaluation Outcomes

The primary evaluation

SLO/SB FF18 SNAP-ED EVALUATION FRAMEWORK

	Short Term	Medium Term	Long Term
Individual	ST1 Healthy Eating – Goals & Intentions	MT1 Healthy Eating - Changes	
	Teacher Tasting Tool How many are willing to eat this food at school again? 76% How many of you are willing to ask for this food at home? 71%	vegetables in the cafeteric Students now bring fruit as Youth Healthy Living sur	s a snack. <u>vey</u> choose water instead of sugary drinks,
Environmental Settings	ST5 Organizational Motivators- Need & Readiness	MT5 Organizational Adoption -Nutrition Supports	LT5 & LT6 Organizational Implementation & Effectiveness - Nutrition and PA Supports
	Shaping Healthy Choices Self-Health Check (4 sites) Stakeholder goals interview (5 sites)	 13 sites made changes 7239 SNAP-Ed eligible pop. reached 	13 sites with multi-component implementation 2 sites with improved environmental scan scores

tools used in FFY17 to measure the efficacy of youth nutrition education programming include the Teacher Observation Tool (TK-6th grades), and Teacher Tasting Tool (1st-6th grades). In 6th grade we also collected pre and post Nutrition Knowledge Surveys. For our more intensive Youth Engagement activities we used a 4-H Healthy Living Survey.

ST1 – Healthy eating goals & intentions

Indicator ST1 measures changes in *intentions and goals* resulting from nutrition education classes. The outcome measure for ST1 is the number or percentage of participants who set goals or intent to change behaviors related to the Dietary Guidelines. The most relevant data collected for ST1 include the Teacher Tasting Tool (TTT). In Santa Barbara County 32 classes representing 831 students implemented the TTT. The TTT measures willingness to try and ask for new foods in different settings and is relevant to nutrition education because students need to try new foods many times before they decide whether or not they like them. Research has shown that low-income families are less likely to take risks on new foods because they do not have room in their budget for food waste if it is rejected by the child. Therefore, exposing students to new foods in a safe and low-risk environment like the school or classroom may increase their acceptance of new foods at home. In Santa Barbara County the TTT was implemented by both UC staff and extenders during food demonstrations and tastings. Foods included mostly fruits and vegetables in combination with other food items (i.e. in a recipe). Of the students surveyed, 59% said they had never tried the food in that form or recipe before, 76% reported they were willing to ask for this food at home. While this evaluation does not directly assess *intent and goals* as indicated in ST1, willingness may provide a close approximation for the purposes of this evaluation.

MT1 – Healthy eating changes

Indicator MT1 measures healthy eating behavior changes reported by SNAP-Ed participants.

Teacher Observation Tool

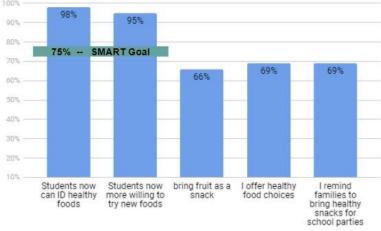
SLOSB does not collect data regarding SNAP-Ed youth participant eating behaviors. However, the Teacher Observation Tool (TOT) is distributed to all SLOSB educator extenders with the goal of collecting observational data from teachers about changes they identify in their students over the course of the academic year. The TOT also collects data about behavior changes made by the extender. This is significant because teachers serve as role models to their students and their behaviors, nudges and actions can have an effect on the health behaviors of their pupils.

Students seem to be more aware and excited about all healthy food choices.

-Elementary School Teacher

In Santa Barbara County, SLOSB exceeded both SMART objectives for the Teacher Observation Tool. 98% of surveyed teachers (n=42) agreed or strongly agreed with the statement Compared to the beginning of the school year, more students now can identify healthy food choices (change in knowledge) and 95% agreed or strongly agreed that Compared to the beginning of the school year, more students now are willing to try new foods offered at school (change in healthy eating – MT1). Additionally, related to MT1, teachers reported that students now bring fruit as a snack (66%), wash hands more often (81%) and choose fruits and/or vegetables in the cafeteria (74%).

Compared to the beginning of the school year...



In relation to their own behaviors, 69% of teachers report that Compared to the beginning of the school year, I (the teacher) now offer healthy food choices to the students and 69% agree that, Compared to the beginning of the school year, I (the teacher) now remind families to bring healthy snacks for school parties.

Thank you so much for this excellent program! It truly makes a difference for our students.

-Elementary School Teacher

Youth Healthy Living Survey

In FFY18, SLOSB administered the Youth Healthy Living survey both pre and post in all 4-H SNAC clubs. Unfortunately, due to a mix-up in communication on how to code the surveys, only 21 were able to be matched pre-post and analyzed for this report. Data show that, after participating in SNAC, more students said it was *not at all hard* to do the following healthy behaviors:



4-H SNAC Leaders promoting school breakfast.

Healthy Behavior is Not at all hard	Pre (%)	Post (%)
Choose water instead of soda pop or Kool-Aid when thirsty	48%	62%
Choose a small instead of a large order of fries	53%	74%
Eat smaller servings of high-fat foods	19%	33%
Eat a low-fat snack like pretzels instead of pretzels or chips	35%	55%
Drink less soda pop	56%	72%
Drink less of other sugary drinks like fruit punch, sports/energy drinks, sweetened teas/coffees	20%	30%
Drink 1% or skim milk instead of 2% or whole milk	63%	74%

In addition to health behaviors, youth development was also assessed.

Agree or strongly agree with youth development statement	Pre (%)	Post (%)
I am comfortable making my own decisions	75%	100%
I helped with a project that made a difference in my community	60%	69%

<u>Shaping Healthy Choices Summary of Preliminary Results – Summary by UC Davis Center for Nutrition in Schools</u>

Program Overview

The Shaping Healthy Choices Program (SHCP) is a multi-component, evidence-based, school intervention that is based upon the Social Cognitive Theory and the Social Ecological Model to improve children's health and nutrition-related behaviors with a long-term goal of reducing childhood obesity. The curriculum within the SHCP is Discovering Healthy Choices, an inquiry-based version of Nutrition to Grow On. Discovering Healthy Choices supports the Common Core Standards for 4th-6th grade, and allows youth to "learn by doing" and strengthens critical thinking skills.

Implementation

The SHCP was implemented in two schools in Santa Barbara County. Students in six classroom received direct nutrition education, which included inquiry-based, garden-enhanced nutrition education from the curriculum *Discovering Healthy Choices* (DHC) as well as cooking demonstrations from *Cooking up Healthy Choices* (CUHC).

Evaluation

Nutrition knowledge was assessed pre and postimplementation using a 35-item questionnaire. Because individual identifiers were not used, a paired-samples ttest could not be used to compare individual pre and post data and an independent samples t-test was used to compare pre and post scores. Nutrition knowledge analyses were completed using SPSS 25.0.

Preliminary Results

Six classroom collected aggregate nutrition knowledge. A total of 147 students completed a pre-assessment and 173 completed a post-assessment. A statistically significant increase in nutrition knowledge was observed from pre-implementation (20.0 \pm 4.3) to post-implementation (21.55 \pm 4.6; p = 0.002). (Figure 1).

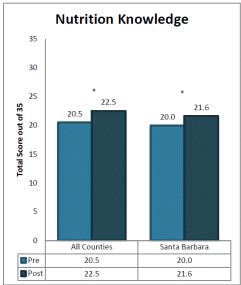


Figure 1: Differences in nutrition knowledge pre- and post-implementation.

Conclusions

The implementation in Santa Barbara County resulted in a statistically significant increase in nutrition knowledge. The education in this county was delivered by teacher extenders rather than county educators, indicating that this model was successful in improving nutrition knowledge in students.

Environmental Settings

ST5 Organizational Motivators & MT5 Organizational Adoption

ST5 measures the number of sites with an identified need for improving access or creating appeal for nutrition and physical activity supports while MT5 measures the number of sites that made changes and the number of participants that were reached by those changes.

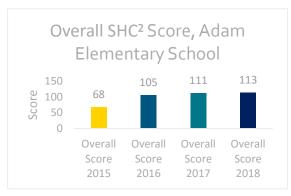
PEARS Summary Data

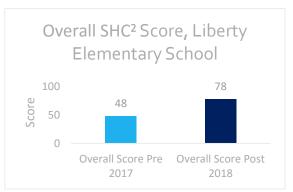
PSE data reported in the PEARS system show that during FFY18 SLOSB supported PSE changes at 13 sites reaching 7,239 people with a total of 66 policy, system or environmental changes.

Environmental Scan data

SLOSB completed Shaping Healthy Choices Self Health Check (SHC2) assessments at four school sites (ST5). In each of these assessments changes were identified to improve access to or create more appeal for nutrition and physical activity supports. Data from the SHC2 show that, of the four school sites that were assessed, two showed improvements in their overall scores.

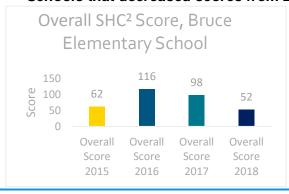
Schools that improved from 2017 (charts by Center for Nutrition in Schools)





At Adam Elementary, after an initial jump in SHC2 score during the first year of implementation, their score has continued to slowly improve each year. Adam Elementary is a committed partner with administrative and classroom support that has remained consistent each year we have provided services there. At Liberty Elementary, we began providing services during the 2017/18 school year. The data are consistent with all of our scored schools, showing a large improvement in scores during the first year of partnership. As we develop deeper relationships with our partners, they continue to be more supportive of efforts to improve health at their school sites. The "easy" wins that we see in the beginning of the partnership are sustained and the more difficult to attain PSE changes take persistence and relationship building.

Schools that decreased scores from 2017 (charts by Center for Nutrition in Schools)





Two schools showed a decline in overall school health environment from 2017 to 2018 based on their SHC2 scores—Rice Elementary and Bruce Elementary. Each of these schools have been long term partners with SLOSB in providing comprehensive nutrition education services. Each of these schools showed a large improvement in the first years of implementation. At Rice Elementary, their SHC2 score continues to remain high and well above the original year of scoring in 2015. The decline in scoring at Rice is most likely due to: 1) the school garden is currently out of use as school stakeholders work to re-design and refurbish the space, and 2) a new Vice Principal conducting the ratings who may have slightly different rating scales and perceptions.

At Bruce Elementary, also a long term partner, we saw a large drop in score – even lower than the initial assessment in 2015. Bruce Elementary is currently in a transition to new leadership and many staff are not on board with the changes that have been occurring. In addition, Bruce has seen the most turn over in terms of SLOSB staff serving that site. While we currently have a highly-qualified Educator serving that site, it has taken a long time to repair trust and re-build relationships that were lost when Educators resigned or were reassigned. Lastly, the new principal may have a different scale for rating the SHC1 components. Looking forward, we aim to provide consistent staffing at Bruce and to reassess their commitment to partnering with our program to improve the school health environment.

In addition, SLOSB supported the installation, maintenance or reinvigoration of school gardens at 10 SNAP-Ed qualifying sites through both UC staff led programming and UC GNE volunteer led programming. At two of these sites, SLOSB initiated or expanded a mechanism for distributing onsite garden produce to families or communities and initiated or expanded farm-to-table/use of fresh or local produce.

Social Determinants of Health - Impacts

Addressing the social determinants of health - such as social and economic opportunities, high-quality education, and access to nutritious food - was identified in Healthy People 2020 as a priority for improving the nation's health. Differences in social



determinants are major contributors to health disparities among communities. Environmental factors, including adverse experiences and economic stresses, have been found to disrupt adolescents' social-emotional foundation and can impact their future wellbeing. Conversely, successful implementation of youth engagement strategies can increase adolescents' positive social and emotional development; leadership, problem solving, and decision making skills; sense of belonging; and sense of purpose, while decreasing

adolescent engagement in high-risk behaviors. Engaging adolescents in identifying and addressing the social determinants of health in their communities can have a compounding impact on adolescent and community wellness.

Data from the SNAC Youth Leader Training show that, youth that attended the





training believe: 1) they can help make their school a healthier place (78%); 2) kids have the power to make positive change in their communities (94%). Additionally, qualitative data from the parents that attended the family dinner at the Youth Leader Training show that parents think that 4-H SNAC has helped their child to: prepare food and learn how to cook, eat healthy and make better choices, learn how to read food labels, prepare different types of food, be involved, volunteer his time and help cook at home. Interestingly, parents

reported a wide range of responses when asked: I am supportive of their child's health and nutrition suggestions. Fifty percent said they are always supportive, 21% are sometimes supportive, 17% are occasionally supportive and 13% are never supportive.

Integrated programming between UC CalFresh and 4-H has increased access to 4-H Youth Development programming in underserved communities. This represents significant systems and programmatic change that may have implication for state and nationwide programming.

E. Overall Assessment

Overall SLOSB continues to make progress and improve on the comprehensive nutrition education service delivery model. SLOSB has been recognized statewide and nationally (see Awards, section IX above) as a leader in youth engagement in nutrition education and innovative, integrated program delivery. Many counties have requested information, presentations, and site visits to SLOSB to learn from our talented staff.

Outcomes from FFY18 demonstrate that SLOSB is contributing to healthier food and physical activity environments in the school communities where SLOSB provides services which in turn leads to behavior changes and positive health outcomes. Through comprehensive nutrition education programming, youth are reporting an increased willingness to try new foods, positive changes in health behaviors and increased willingness to engage their family members in healthy eating behaviors. Schools and school staff are being impacted by comprehensive programming through increased awareness of nutrition and physical activity issues and site level changes like improved school food marketing and access to school gardens. Lastly, SLOSB is working to develop healthy living advocates that will have the knowledge and skills needed to create environments and communities where people can be healthy.

F. SNAP-Ed Planned Improvements

SLOSB engages in continuous quality improvement practices, allowing UC staff and partners to provide feedback on services and, when possible, make modifications and changes in service delivery. Examples of this include modifying program delivery to adult education participants to include a more interactive and group support model. Participants have told staff that they do not want to attend a class, but they are interested in getting hands-on training and the opportunity to discuss relevant nutrition and physical activity information and information about what is happening at their children's school in a supportive discussion format.

In addition, SLOSB continues to modify the "No-Prep" Nutrition Education kits based on feedback from extenders about usability. The No-Prep kits are migrating toward a more user- and staff friendly process. They are being simplified to improve fidelity implementation and streamline kit building. Moving forward, kits will include a pacing guide that briefly outlines lessons that should be delivered in between UC Educator visits in order to maximize learning. The pacing guide includes more information on the "Go Further" sections and opportunities to request extra items and nutrition supplies from UC Educators in order to enhance student learning.

Also, based on feedback from youth and staff, SLOSB is working on developing more structure for our 4-H SNAC clubs. IN the Youth Healthy Living survey, one of the youth reported that the program could be improved by having more adults to supervise the kids. In FFY19, SLOSB developed a recruitment process to ensure a 1:10 student to adult ratio in the afterschool club. The goals of this change is to be able to provide more meaningful, in-depth youth engagement opportunities for our committed youth leaders, reduce distractions from youth that do not really want to be there and time spent on classroom management. In addition, SLOSB is developing a SNAC guide for use in 4-H SNAC clubs to develop student leadership, elect officers, make club decisions, increase youth voice, and get students familiar with running 4-H meetings.

Lastly, as SLOSB continues to get requests for garden nutrition education support, we have implemented an application process for gaining school community commitment for school gardens before we move forward with staffing, technical assistance, or financial support for the school garden. This process has allowed SLOSB to gauge the level of commitment from the school community for the development and ongoing maintenance of the garden and their commitment to teaching nutrition education from the garden.