



Evaluation Report Attachments #1-3:

FFY 2022



FFY 2022 Annual Report Evaluation Attachments

Evaluation Report Attachment # 1

Process and Outcome Evaluation: Tracking Program Delivery and Partnerships through Program Evaluation and Reporting System (PEARS)

Project: CalFresh Healthy Living, University of California SNAP-Ed Activities in 34 California Counties

Evaluation Report Attachment # 2

Outcome Evaluation: Measuring CalFresh Healthy Living, UC's Intervention Success via Adult & Youth Evaluation tools

Project: CalFresh Healthy Living, UC SNAP-Ed Activities in 34 California Counties

Evaluation Report Attachment # 3

Process and Outcome Evaluation: Meeting Youth Where They Are: Conducting In-Person, Online and Hybrid Youth Participatory Action Research (YPAR) in CalFresh Healthy Living, University of California Programming

Project: CalFresh Healthy Living, UC – Youth Engagement Initiative

Evaluation Report Attachment #1:

Process and Outcome Evaluation: Tracking Program Delivery and Partnerships through the Program Evaluation and Reporting System (PEARS)

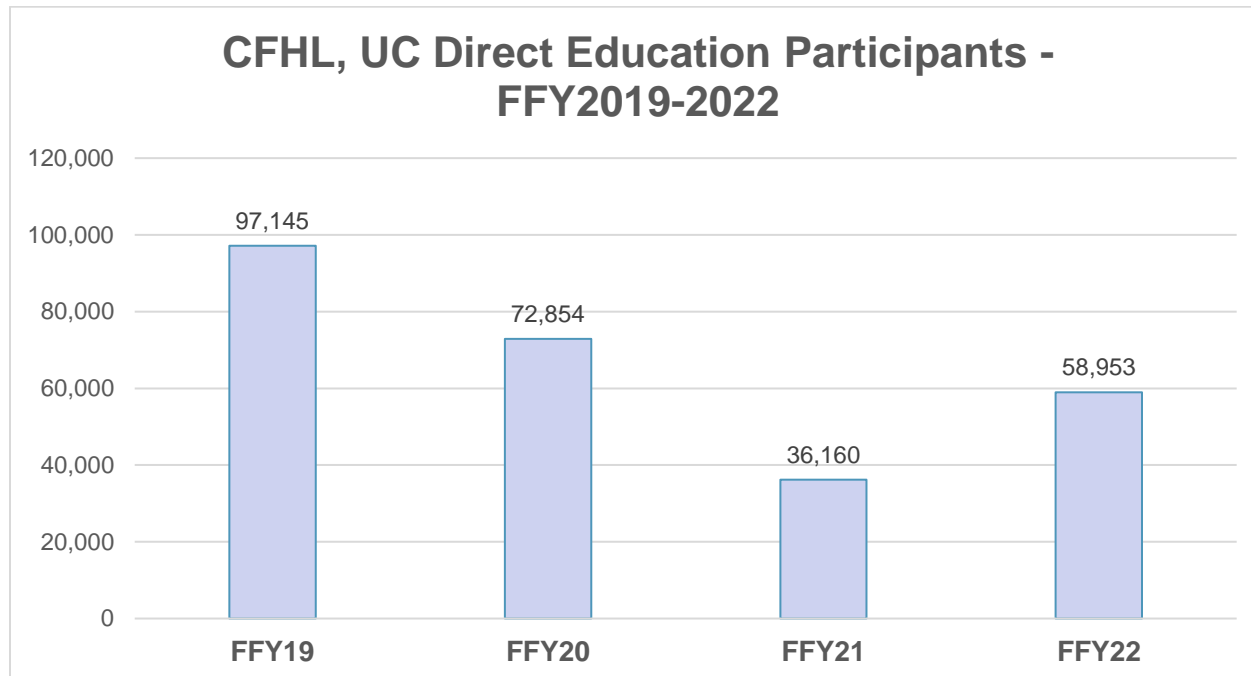
Project: CalFresh Healthy Living, University of California SNAP-Ed Activities in 34 California Counties

INTRODUCTION

All CalFresh Healthy Living, UC Cooperative Extension teams report their program delivery and partnerships in the Program Evaluation and Reporting System (PEARS). This evaluation report summarizes PEARS data for the major intervention activities related to direct education, indirect education, policy, systems and environmental (PSE) activities and partnerships. Certainly, COVID-19 has had a major impact on CFHL, UC program delivery as is reflected in the four-year trends for direct education and PSE activities. However, the CFHL, UC team was able to pivot to online service delivery especially in FFY2021 with transition back to in-person delivery for many sites in FFY2022. Summarized below are PEARS data related to direct education, indirect education, PSE activities and partnerships. The emphasis is on FFY2022 PEARS data but in a few key areas four-year trends reflecting pre-COVID-19 (FFY2019), partial COVID-19 (FFY2020), full-COVID (FFY2021) and transition-out-of-COVID-19 (FFY2022) program delivery are displayed.

DIRECT EDUCATION

Pre-COVID, UCCE teams typically provided direct education to close to 100,000 SNAP-Ed eligible persons annually. For example, the number of FFY2019 direct education participants was 97,145. The partial COVID-19 reporting year, FFY2020 direct education reach was 72,854 or 75% of the FFY2019 reach compared to 36,160 (37%) in FFY2021 which was a year entirely impacted by COVID. The number of direct education participants reached has begun to increase again in FFY2022 with 58,953 reached.



In each year (FFY2019-2022), the majority of direct education participants were school-aged (5-17 years) with between 15-22% of the remaining direct education reach accounted for by older adults (60+), adults (18-59) and preschool children (<5 years). The largest percentage decrease (86%) from the pre-COVID FFY2019 to the fully COVID FFY2021 was in the 60+ or senior population. This was a difficult audience to

reach during COVID-19; however, reach to older adults (60+ years) showed a considerable increase from FFY2021 to FFY2022.

AGE GROUP	FFY2019	FFY2020	FFY2021	FFY2022
<5 YRS	10,244	7,182	3,893	4,725
5-17 YRS	76,075	59,911	28,558	49,972
18-59 YRS	9,550	5,331	3,536	3,761
60+YRS	1,276	430	173	495
TOTAL	97,145	72,854	36,160	58,953

DIRECT EDUCATION DEMOGRAPHIC DATA

In FFY2022, CFHL, UC delivered direct education in 134 cities in the state of CA and 446 different zip codes across the 34 counties. Similar to previous years, direct education demographics are almost split 50/50 for gender; with the majority of participants identified as Latino/Hispanic. Race was “unknown” for a relatively high percentage of participants due primarily to how the California Department of Education collects this information at school sites.

Gender (n=58,953)	#	%
Male	27,814	47%
Female	29,189	50%
Prefer not to Respond	-	
Unknown	1,950	3%

ETHNICITY (n=58,953)	#	%
Hispanic	33,726	57%
Not Hispanic	20,329	34%
Prefer not to respond	251	<1%
Unknown	4,647	7%

Race (n=58,953)	#	%
American Indian or Alaska Native	301	1%
Asian	4,088	7%
Black or African American	1,363	2%
Native Hawaiian or Other Pacific Islander	71	<1%
White	14,204	24%
Prefer not to respond	1,767	3%
Unknown	37,261	63%

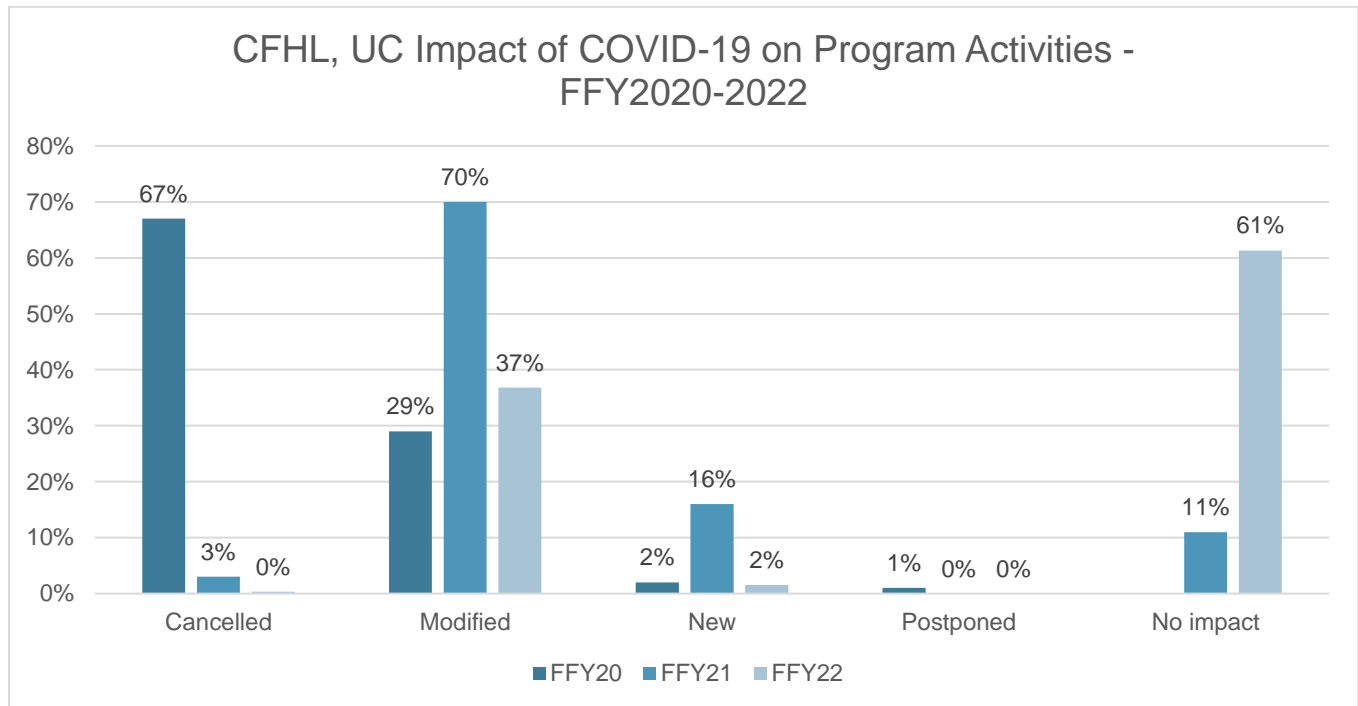
SITE SETTINGS REACHED BY INTEGRATED WORK PLAN (IWP) INTERVENTION

Nearly three-quarters (71%) of CFHL, UC direct education participants were reached at schools representing primarily the 5-17 age group, followed by the afterschool setting where 13% of direct education participants were reached representing primarily school-aged youth. CFHL, UC's ECE reach is 10% with both youth age 0-4 and adults participating in this setting. The community interventions highest reach is seen in the adult education or TANF sites, then individual homes or public housing sites, followed by family resource centers, where CFHL, UC programs are able to serve our adult (18-59 years) and older adult (60+ years) target audiences.

Site Setting	School	Afterschool	ECE	Community
Total Participants Reached	42,104	7,877	5,739	3,233
Percentage of total DE Reach n=58,953	71%	13%	10%	5%
Adult education, TANF				1,084
Before and after-school programs		7,864		
Community and recreation centers				193
Community organizations				132
Congregate meal sites				199
Early care and education facilities			5,739	
Emergency shelters / temporary housing				34
Faith-based centers/places of worship				134
Family resource centers				541
Gardens				17
Group living arrangements				22
Indian reservations				10
Individual homes or public housing sites				704
Libraries				12
Residential treatment centers				143
Schools (K-12)	42,104			
SNAP offices				8
Youth Organizations		13		

COVID-19 IMPACT ON DIRECT EDUCATION (DE) ACTIVITIES FFY2020 - FFY2022

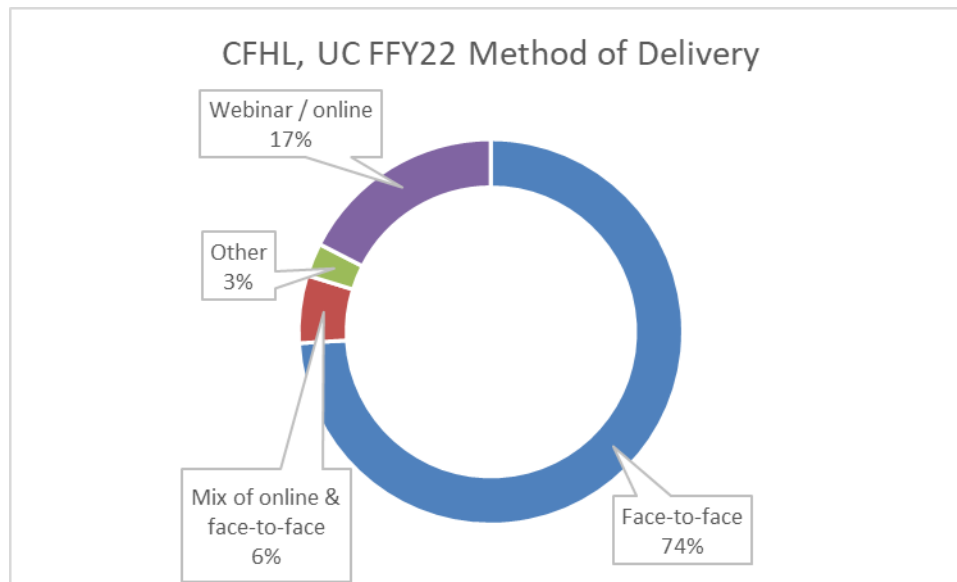
Since March of 2020, CFHL, UC direct education activities have been impacted by COVID-19. A new COVID-19 Impact data field was added to PEARS to indicate whether the program activity was *cancelled/not completed*, *modified*, *new* or *postponed* due to COVID-19. In FFY2021, an additional response option was added: *no impact due to COVID-19*. The graph and table below summarize three-years of findings for those reporting COVID-19 Impact. (Note: prior to FFY2022, this was not a required data field.) As depicted in the graph below, “cancelled” was the most common impact in FFY2020. As new virtual delivery options and education materials were developed, the most common impact in FFY2021 was “modified due to COVID-19”. In FFY2022, while more than a third of the program activities were identified as “modified”, the most common response was “no impact” representing the trend toward return to in-person operations.



COVID-19 Impact (Program Activities)	FFY2020	FFY2021	FFY2022
<i>Cancelled / not completed due to COVID-19</i>	1,267	52	10
<i>Modified due to COVID-19</i>	547	1,297	1,154
<i>New due to COVID-19</i>	42	300	48
<i>Postponed due to COVID-19</i>	22	3	1
<i>No impact due to COVID-19</i>	n/a	208	1,922
Grand Total	1,878	1,860	3,135
Number of Participants			
<i>Cancelled / not completed due to COVID-19</i>	33,460	75	234
<i>Modified due to COVID-19</i>	9,592	20,951	15,441
<i>New due to COVID-19</i>	1,945	6,771	722
<i>Postponed due to COVID-19</i>	476	93	24
<i>No impact due to COVID-19</i>	n/a	4,069	42,532
Grand Total	45,473	31,959	58,953

DELIVERY METHOD AND SESSIONS FFY2022

In FFY2022, CFHL, UC delivered 3,135 direct education program activities for a total of 20,351 hours of direct education delivery. Almost three-quarters (74%) of the FFY2022 program activities were provided through face-to-face delivery with an additional 6% through a mixture of face-to-face and online delivery. Fewer than one in five (17%) of the program activities were reported to have been delivered entirely online/webinar in ECE, schools, and afterschool settings. However, almost half of direct education program activities are still delivered fully virtual or a hybrid of virtual and face-to-face in the community setting, which primarily reaches adults (18-59 and 60+ years). This indicates ongoing interest from CFHL, UC's adult audience in accessing services through a variety of mediums, including from the comfort of their own homes.

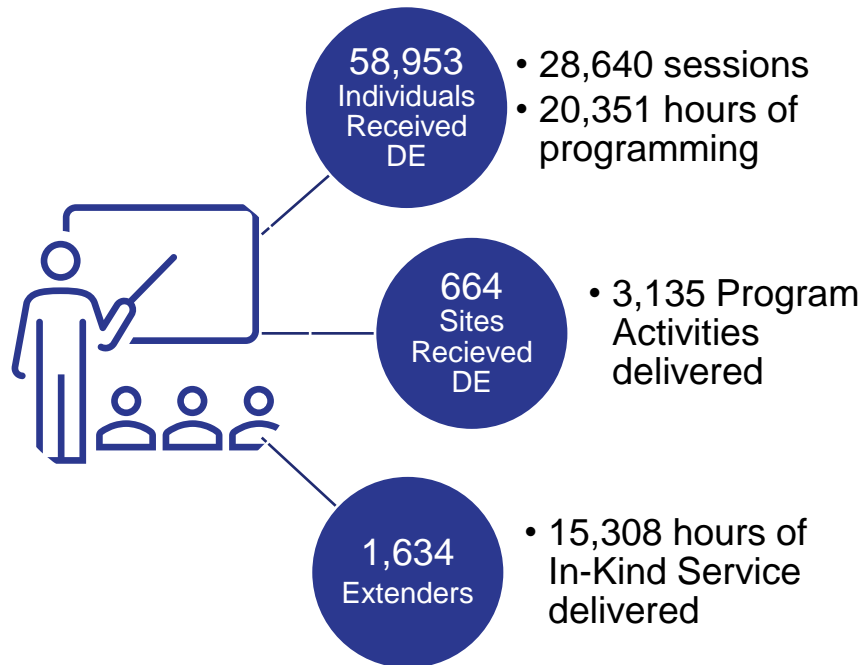


Session Delivery Method by IWP Intervention	School	Afterschool	ECE	Community
Face-to-face	1,510	334	296	182
Mix of online and face-to-face	83	3	2	90
Other: Mix of online / phone calls	0	0	0	87
Webinar / online	157	8	124	259

Of the 3,135 direct education program activities delivered, 801 (26%) were delivered as single sessions, 787 (25%) were delivered as a 2-4 session series, 730 (23%) fell into the 5-9 session series and 817 (26%) were delivered as series comprised of ten or more sessions. Session duration ranged from less than 30 minutes to over two hours. Most session delivery occurred in 60 minutes or less. Series of 10 or more sessions were most frequently reported to be of relatively shorter duration (<30 minutes) and likely represent short session delivery common in the preschool setting.

CFHL, UC's direct education is delivered by trained extenders in addition to UCCE community educator staff. For FFY2022, an estimated 1,634 volunteers or teacher extenders provided in-kind time to deliver direct education. Extenders are trained to deliver CFHL, UC SNAP-Ed approved curriculum, track their time and number of lessons, as well as complete or in some cases administer participant evaluations. These volunteers reportedly dedicated an estimated 15,308 hours of time supporting CFHL, UC direct education including their training, preparation and lesson delivery to participants. The CFHL, UC State Office verifies the unique number of volunteer extenders with every LIA to account for potential duplicate counts of extenders delivering multiple direct education program activities.

SUMMARY OF FFY2022 DIRECT EDUCATION

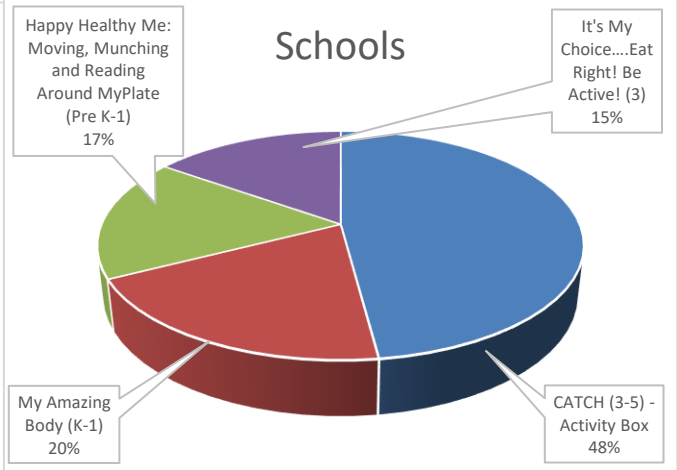
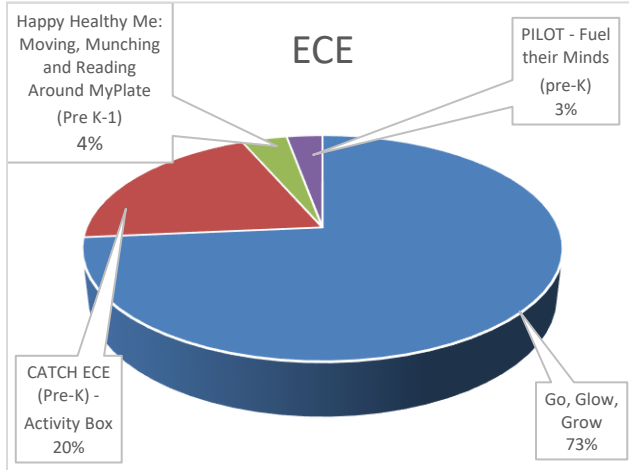
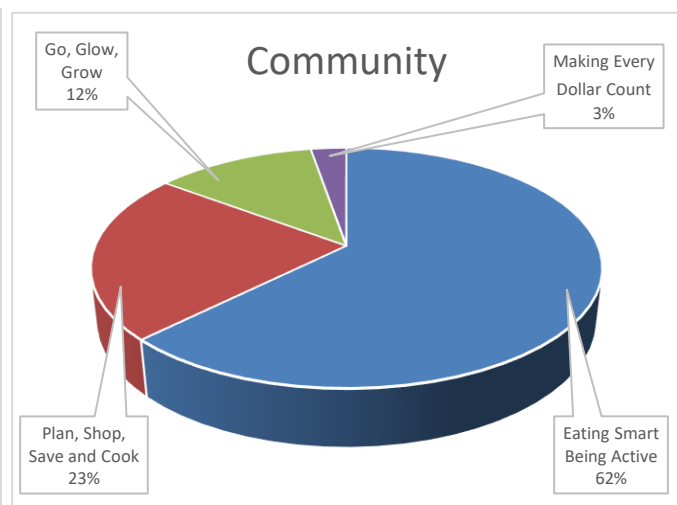
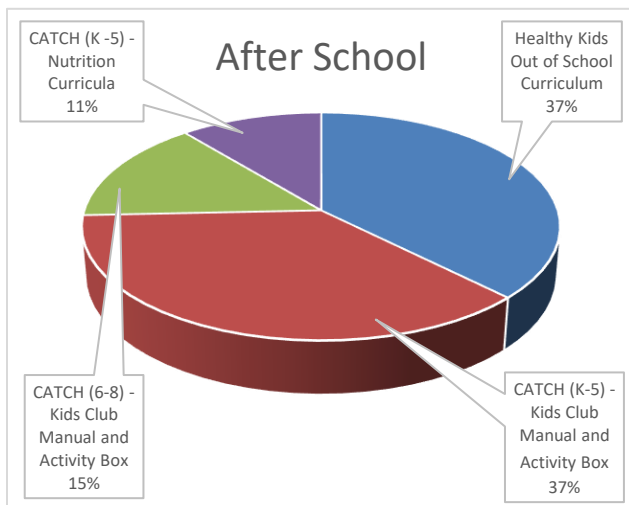


CURRICULUM SUMMARY: NUMBER OF ACTIVITIES, SESSIONS AND PARTICIPANTS

In total, 68 curricula were used from the CalFresh Healthy Living Approved list during FFY2022, with 28,640 sessions reported overall. This does not include additional supplemental curricula used during the same program activity. The following findings highlight results from the primary curricula used in over 500 sessions. The table below lists the most frequently reported primary curricula, including the reach by age group, number of DE activities and number of sessions delivered.

Primary Curriculum (grade level)	0-4	5-17	18-59	60+	Total Reach	# of Activities	# of Sessions
<i>CATCH (3-5) Activity Box</i>	46	5,696			5,742	114	3,499
<i>Go, Glow, Grow (Pre-K)</i>	2,153	1,423	65		3,641	263	2,462
<i>Eating Smart Being Active</i>		19	498	6	523	222	1,864
<i>My Amazing Body</i>	81	2,802			2,883	135	1,374
<i>Happy, Healthy Me: Moving, Munching, and Reading Around MyPlate (Pre K-1)</i>	185	3,242	19		3,446	180	1,333
<i>CATCH (K-5) – Kids Club Manual and Activity Box</i>	10	2,204			2,214	123	1,094
<i>It's My Choice... Eating Right! Being Active! (3)</i>		2,125			2,125	97	1,051
<i>Nutrition Pathfinders (4-6)/Let's Eat Healthy Video Series</i>		1,114			1,114	40	1,036
<i>Good for Me and You (2)</i>	20	2,571			2,591	120	1,035
<i>Healthy Kids Out of School Curriculum</i>		2,683			2,683	107	990

Primary Curriculum (grade level)	0-4	5-17	18-59	60+	Total Reach	# of Activities	# of Sessions
<i>TWIGS: Teams With Intergenerational Support (K-8)</i>	58	4,746	131	7	4,942	212	934
<i>Up4It! – Level 1 (4-5)</i>	105	3,563			3,668	143	879
<i>Plan, Shop, Save, Cook</i>	1	81	1,729	200	2,011	271	841
<i>Let's Eat Healthy Second Grade (2)</i>		656			656	29	824
<i>Go, Glow, Grow</i>	1,143	83			1,226	76	805
<i>Let's Eat Healthy Kindergarten (K)</i>		813			813	39	802
<i>Let's Eat Healthy First Grade (1)</i>		625			625	29	780
<i>Exercise Your Options (6-8)</i>		952			952	31	775
<i>CATCH (K-2) – Activity Box</i>	77	1,917			1,994	52	728
<i>Shaping Up My Choices (3)</i>	0	553			553	25	727
<i>CATCH ECE (Pre-K) – Activity Box</i>	447	36			483	29	595

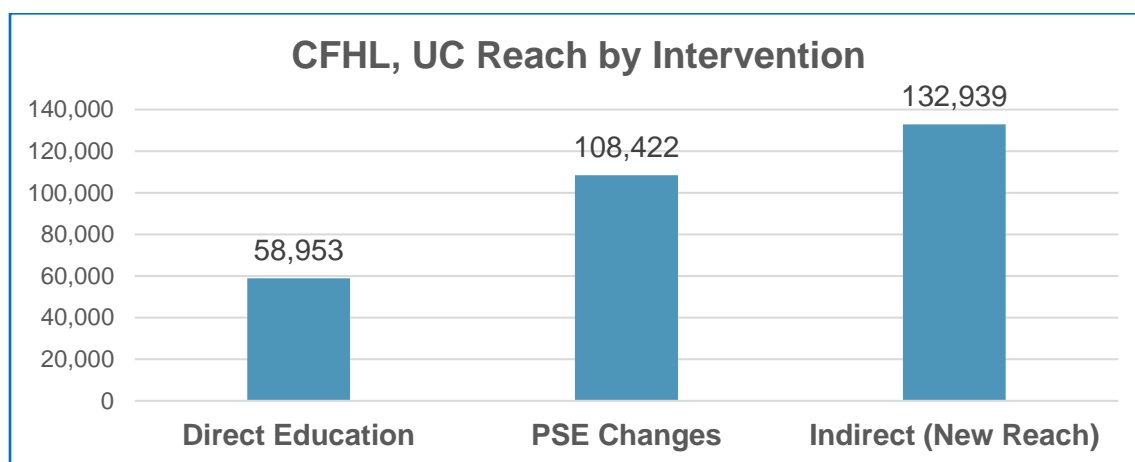


Highlighted above are the curriculum with the most frequently reported direct education activities and the intervention setting where the delivery occurred e.g. afterschool, community, school or ECE. For example,

of the four most frequently reported primary curricula in the afterschool setting, the *CATCH (K-5) Kids Club Manual and Activity Box* was reported to be used during 37% of the DE activities. *CATCH* Curricula remain the most popular choice for afterschool programming and schools, while *Go, Glow, Grow* was delivered in three-quarters of the DE activities at ECE sites. In the Community setting, *Eating Smart, Being Active* was delivered in over half of the direct education activities.

INDIRECT EDUCATION FFY2022

FFY2022 total reach for Direct Education was 58,953 participants. This reflects a notable increase from the previous year, which experienced an even greater negative impact due to COVID. PSE reach was estimated to be 108,422 persons, also considerably higher than the previous year. Indirect Education has continued to be a significant method for delivery of nutrition, gardening and physical activity education, reaching 132,939 new participants - more than two times the direct education total. *New reach* refers to individuals not already reached by a corresponding direct education or PSE activity. Hard copy materials, Nutrition Education Reinforcement Items (NERI) and electronic materials were the main channels used to distribute Indirect Education to the target audience.



INDIRECT ACTIVITY CHANNELS

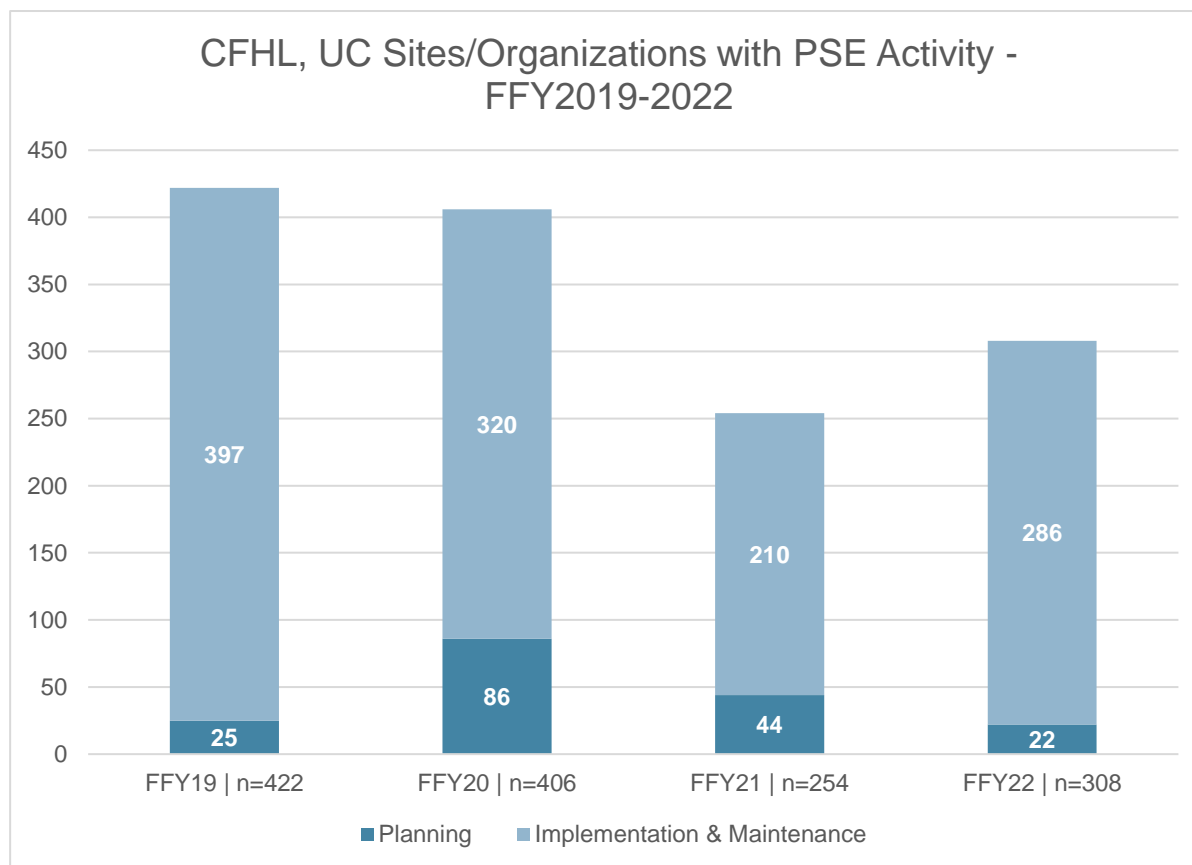
	# of Activities
Calendars	7
Community events / fairs - participated	60
Community events / fairs - sponsored	3
Electronic materials	101
Fact sheet	9
Hard copy materials	490
NERI	237
Other	22
Radio interview	2
Social media	43
Videos	17
Websites	1
Food Demos	58
Unique Reach	295,697
New Reach	132,939

POLICY, SYSTEMS AND ENVIRONMENT ACTIVITIES

All CalFresh Healthy Living, University of California (UC) county programs also report policy, systems and environmental (PSE) activity in PEARS. As described in the PEARS PSE module, *“at the environmental level, the focus of evaluation is not on measuring changes in individuals, but rather changes in settings or venues in low-income areas where nutrition education is [typically] provided”*.

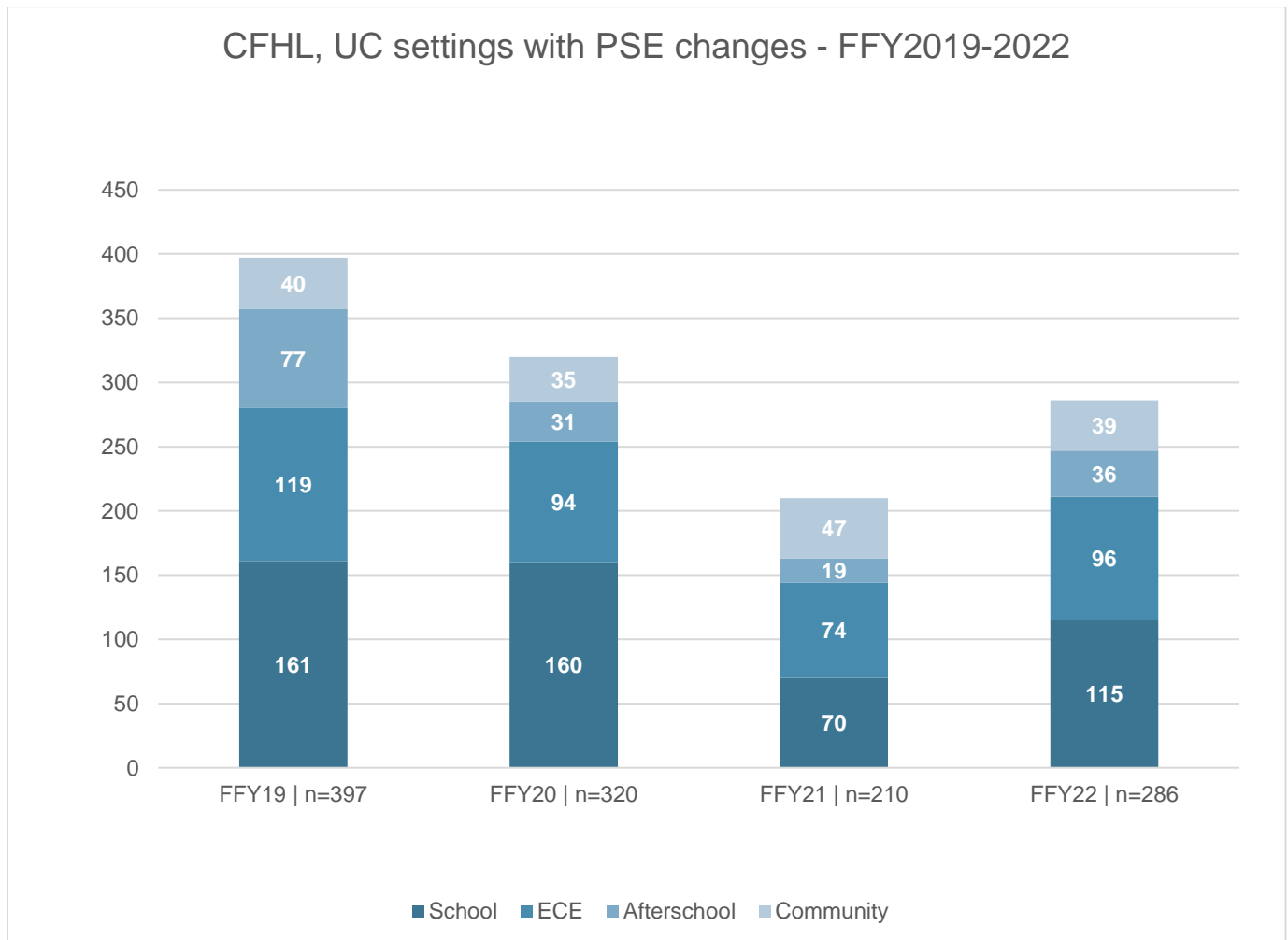
FOUR-YEAR TRENDS

COVID-19 has impacted CFHL, UC team’s ability to implement PSE activities as planned. However, they have continued to work with site and organizational partners toward PSE changes where possible. In FFY2019 prior to COVID-19, CFHL, UC teams reporting PSE activities either in the planning or implementation and maintenance stages at a total of 422 sites/organizations compared to only 254 for FFY2021. With the return to in-person school during the 2021-22 school year, the number of PSE reported activities has begun to increase again to 308 sites/organizations for FFY2022. The chart below displays the number of site/organizations where the PSE work is only in the planning stage (the bottom sections of the stacked bars displayed in the chart below) as well as sites already in the implementation and maintenance stages (top sections of stacked bars in chart) of PSE work.

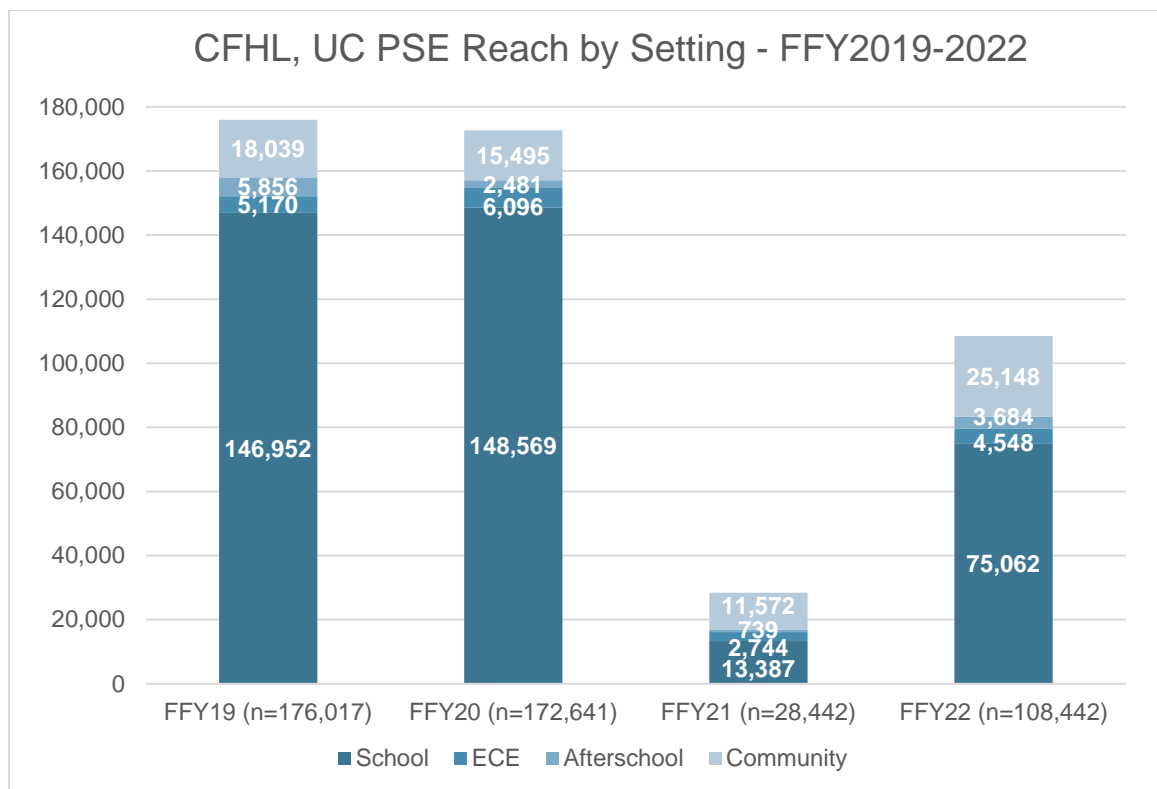


Similar to the types of settings where direct education is implemented, CFHL, UC teams tend to focus their PSE activities at schools, ECEs and afterschool settings. For sites in the implementation and maintenance stages where at least one PSE change is adopted, the breakdown of the different “types” of settings is relatively similar for the FFY2019 pre-COVID-19 and FFY2020 partial COVID-19 reporting years. However, the relative share of other community sites was somewhat higher and almost a quarter (22%) of the sites in the PSE implementation or maintenance stage during FFY2021 compared to just 10% in FFY2019. This change likely reflects the additional challenge of implementing planned PSE work in the school settings

which was hindered by school closures and limited, if any, school access granted to volunteer staff. In FFY2022, the breakdown in different settings rebounded appearing more similar to FFYs 2019 and 2020 with fewer afterschool and school sites given the smaller number of PSE sites overall.



An even greater impact was evident in the number of people reached by PSE changes adopted due to COVID-19 than the number of sites/organizations adopting changes. While over 170,000 people were estimated to have been reached at sites/organizations adopting at least one PSE change in the pre-COVID-19 and partial years of FFY2019 and FFY2020, fewer than 30,000 people were reported to have been reached in FFY2021. This likely reflects the change in the nature of the PSE work CFHL, UC teams were able to implement especially with their school partners. For example, in FFY2021 there was a greater emphasis on school and home gardening that reached relatively fewer students since some of the school-wide PSE changes such as adopting Smarter Lunchtime Movement healthy eating strategies in the cafeteria were not possible due to COVID-19. In FFY2022, with the return to in-person programming in schools, the number of people reached by PSE changes adopted rebounded to over 100,000 with the large majority (69%) of the PSE reach coming from schools served by UCCE teams.



PSE ACTIVITIES IN FFY2022

In FFY2022, CFHL, UC teams reported working on policy, systems, and environmental (PSE) changes in 308 sites/organizations (at all stages of implementation). When examining only those who reported implementing or maintaining changes, a total of 779 PSE changes¹ were adopted, reaching an estimated 108,442 SNAP-Ed eligible individuals in 286 sites/organizations across all settings. These results reflect PSE efforts undertaken in 25 counties with PSE changes adopted in 24 of the 34 counties served by CalFresh Healthy Living, UC. PSE changes were adopted most frequently at School and ECE sites. The “other community sites” category includes a variety of different settings but most commonly emergency shelters or temporary housing sites (n=11), farmers markets (n=10) and public housing sites (n=9).

PSEs in Implementation & Maintenance Stages

FFY2022	PSEs in All Stages of Implementation	Schools (elementary, middle, and high)	Early care and education (ECE)	Before/ afterschool programs	Other Community sites*	TOTAL sites and Reach for PSEs with Changes Adopted
PSE Sites/Orgs	308	115	96	36	39	286
PSE Reach		75,062	4,548	3,684	25,148	108,442

*Other includes: Residential treatment centers (n=2); Community organizations (n=1); Farmers markets (n=10); Other places people go to “learn” (n=1); Family resource centers (n=1); Faith-based centers/places of worship (n=1); Individual homes or public housing sites (n=9); Other neighborhood settings where people “live” or live nearby (n=1); Adult education, job training, temporary assistance for needy families (TANF), and veteran services sites (n=1); Emergency shelters and temporary housing sites (n=11); Schools (colleges and universities) (n=1).

¹ The total number of statewide PSE changes adopted (n=779) includes two nutrition mural projects reported in the open text field for “Other” PSE changes in PEARS. Note: These “Other” PSE changes are not included in the aggregate PSE summary statistics available in PEARS which indicates n=777 PSE changes adopted in FFY2022.

COVID-19 IMPACT

CFHL, UC teams were asked to report the COVID-19 impact for each PSE activity. In FFY2022, the most common response for almost three-quarters of the PSE activities (71%) was “no impact due to COVID-19”. This reflects the return to in-person operations at schools, ECEs and other community sites. This year only 25% of PSE activities were reportedly “modified due to COVID-19” compared to 65% in FFY2021. Similarly, only 2% of PSE activities were reported as “new due to COVID-19” compared to 15% in FFY2021.

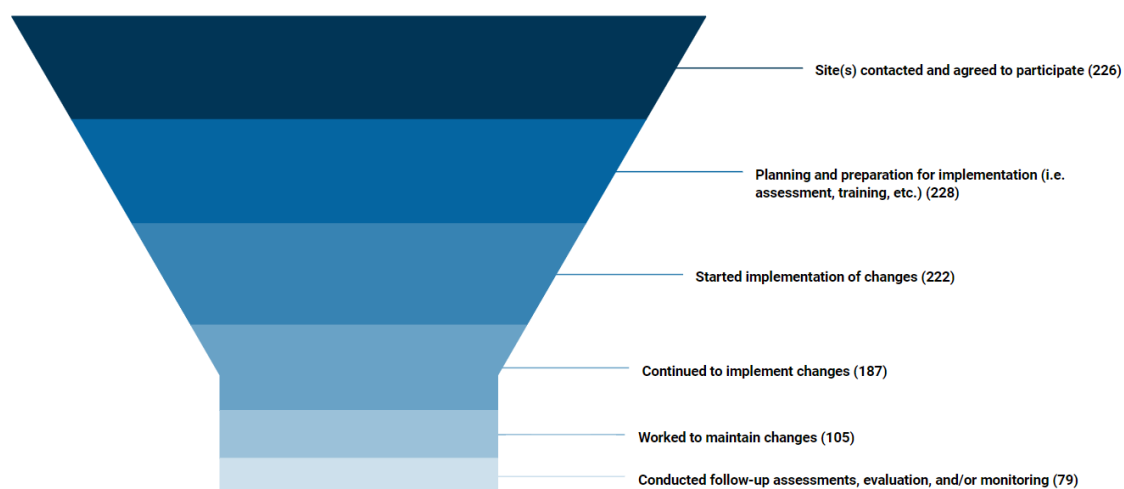
NUMBER OF SITES/ORG REPORTING COVID-19 IMPACT*	FFY2021 Number (%) of Sites (n=254)	FFY2022 Number (%) of Sites (n=308)
No Impact due to COVID-19	42 (17%)	218 (71%)
Modified due to COVID-19	166 (65%)	78 (25%)
New due to COVID-19	38 (15%)	5 (2%)
Postponed due to COVID-19	6 (2%)	4 (1%)
Cancelled / not completed due to COVID-19	2 (1%)	3 (1%)

*Reported for all PSE stages.

PSE STAGES OF IMPLEMENTATION

PSE implementation is typically a multi-year process with a planning phase which might include assessments and training prior to the actual adoption of PSE changes. Sites might start with the adoption of a smaller number of changes and then continue to expand to add additional nutrition and physical activity supports. And, even after PSE changes have been adopted there is typically a need for active maintenance which might involve follow-up training and assessments. The PEARS Impact Dashboard provides a summary visual called the “PSE Activity Pipeline” to capture PSE activities in various stages during the reporting year. Contacting sites (n=226), planning and preparation for implementation (n=228) and starting implementation of PSE changes (n=222) were the most frequently reported stages for activities in FFY2022.

PSE Activity Pipeline



NEEDS AND READINESS ASSESSMENTS

PSE needs assessments and environmental scans are used to identify opportunities for improvement as well as existing strengths. In FFY2022, out of 308 sites working on PSEs, 58 sites completed needs assessments or environmental scans and 2 assessed staff readiness. The most common needs assessments, across sites, completed in coordination with school food service staff, was the Smarter Lunchrooms Self-Assessment Scorecard (n=33), followed by the Smarter Mealtimes Scorecard (n=15) conducted at preschool settings and the SLAQ – Elementary School Site-Level Assessment Questionnaire (n=10). Of the two sites who conducted a staff readiness assessment, both utilized a principal interview. No staff reported completing an organizational readiness assessment at their PSE sites during FFY2022.

Number of PSE Assessments and PSE Sites/Organizations with Assessments*	# of Assessments (n=80)
Total Needs Assessments / Environmental Scans	78
Smarter Lunchrooms Self-Assessment Scorecard	33
Smarter Mealtimes Scorecard	15
SLAQ – Elementary School Site-level Assessment Questionnaire	10
CFHL, UC School Garden Assessment	7
Playground Stencil Assessment	3
Contra Costa County's C.H.O.I.C.E. Toolkit and Self-Assessment Questionnaire	2
SLAQ – Secondary School Site-level Assessment Questionnaire	2
Wellness School Assessment Tool (WellSAT 3.0)	2
Other Assessments: Principal Meeting (3), Torres Martinez Survey (1)	4
Total Staff Readiness Assessments	2
Principal Interview	2
Total Organizational Readiness Assessments	0

* Reported for all PSE stages.

STAGES AND REACH BY PSE SETTING

The table on the following page provides detailed information for each type of PSE setting, including the total number of sites reporting PSE activity in any stage, the number in advanced stages of work (e.g., implementation and maintenance stages) and the estimated number of SNAP-Ed eligible people reached. PSE activities were most frequently reported by CFHL, UC county programs in the three settings where direct education is also most commonly delivered:

1. **128 Schools** (K-12, elementary, middle, and high) with 115 sites adopting PSE changes reaching 75,062 students,
2. **96 Early care and education (ECE)** sites with 96 sites adopting PSE changes reaching 4,548 preschoolers, and
3. **39 Before/after school programs** with 36 sites adopting PSE changes reaching 3,684 youth.

The remaining settings accounted for 45 additional PSE sites (see Table) with fewer than 15 PSE sites per setting. Still, well over 23,000 SNAP-Ed eligible individuals were reached by PSE changes adopted at Farmers' Markets, nearly 400 were reached by PSE changes at public housing sites, and 300 at a family resource center.

Number of PSE Sites/Organizations and Reach by Setting for All Stages and Advanced Stages

Setting	Number of PSE Sites/Orgs	Number of PSE Sites/Orgs	Reach
	<i>All Stages</i>	<i>Advanced Stages*</i>	<i>Advanced Stages*</i>
Schools (K-12, elementary, middle, and high)	128	115	75,062
Early care and education	96	96	4,548
Afterschool programs (includes before school programs)	39	36	3,684
Individual homes or public housing sites	13	9	375
Emergency shelters and temporary housing sites	11	11	240
Farmers markets	10	10	23,900
Residential treatment centers	2	2	57
Family resource centers	2	1	300
Other places people go to “learn”	1	1	100
Adult education, job training, temporary assistance for needy families (TANF), and veteran services sites	1	1	81
Faith-based centers/ places of worship	1	1	60
Community organizations	1	1	15
Other neighborhood settings where people “live” or live nearby	1	1	12
Schools (colleges and universities)	1	1	8
Community and recreation centers	1	0	0
TOTALS	308	286	108,442

*Advanced stages of implementation include implementation and maintenance.

POLICY, SYSTEMS, AND ENVIRONMENTAL (PSE) CHANGES ADOPTED

The PEARS PSE module includes a list of over 100 specific PSE changes related to either nutrition and/or physical activity supports. CFHL, UC reported a total of 779² PSE changes statewide during FFY2022. These individual changes have been categorized into 17 topics. Almost half (41%) of the PSE changes adopted were categorized as related to gardens (n=316), about one in six (17%) were categorized as related to structured physical activity (n=130), and a similar percentage (16%) were categorized as marketing (n=126). Fourteen additional categories reflect the diversity of PSE changes; however, none represented more than 5% of the total PSE changes adopted.

² The total number of statewide PSE changes adopted (n=779) includes two nutrition mural projects reported in the open text field for “Other” PSE changes in PEARS. Note: These “Other” PSE changes are not included in the aggregate PSE summary statistics available in PEARS which indicates n=777 PSE changes adopted in FFY2022.

Number of PSE Changes by PSE Change Topic	Number (%) of Changes* (n=779)
Gardens	316 (41%)
Structured Physical Activity	130 (17%)
Marketing	126 (16%)
Unstructured Physical Activity	36 (5%)
Food Quality	35 (4%)
Physical Activity Breaks	27 (3%)
Food Access	23 (3%)
Nutrition Policy	19 (2%)
Professional Development	18 (2%)
Wellness	17 (2%)
Food Procurement	9 (1%)
Physical Activity Facilities Unstructured Physical Activity	8 (1%)
Recess	8 (1%)
Food Safety	3 (0%)
Physical Education	2 (0%)
Physical Activity Policy	1 (0%)
Physical Activity	1 (0%)

*Summary statistics include only those PSEs in the implementation and maintenance stages.

When examining the individual PSE changes reported, several of the changes most commonly adopted during FFY2022 related to nutrition focused on work in edible gardens, such as using the garden for nutrition education, increasing opportunities for parents, students and community residents to work in the garden, and incorporating garden produce into the meals and snacks served at the site. Another “top five” nutrition related practice adopted was meal service: staff prompting healthy choices specifically by providing “I tried it” stickers to students selecting certain featured produce items. Whereas the top physical activity changes primarily adopted related to institutionalizing opportunities for structured and unstructured physical activity, classroom physical activity breaks, and improving the quality of structured physical activity. An additional area of focus was changing systems to support professional development opportunities on physical activity, such as providing teachers with annual training time and credit for attending CATCH structured physical activity trainings. The top 5 changes related to nutrition and physical activity are displayed on the following page.

Total Changes Adopted

779

Top Nutrition Changes

- 104** use of the garden for nutrition education
- 86** initiation, improvement, expansion, reinvigoration or maintenance of edible gardens
- 68** Opportunities for parents/students/community to work in the garden
- 31** Practices that encourage meal service staff To prompt healthy choices
- 30** Onsite garden produce for meals/snacks provided on site

Top Physical Activity Changes

- 69** Opportunities for structured PA
- 61** Quality of structured PA (non-PE) (e.g. activities that increase time moving)
- 36** Opportunities for unstructured PA time/free play
- 15** Incorporation of PA in the school day or during classroom instruction
- 13** Professional development opportunities on physical activity

Note: The two “Other” PSE changes are not included in the PEARS Impact Dashboard which indicates n=777 PSE changes adopted in FFY2022.

MULTI-COMPONENT STRATEGIES

The PEARS PSE data provide CalFresh Healthy Living, UC with the ability to examine the layering of complementary strategies to achieve multi-component interventions. In total, 255 (89%) of the 286 sites/organizations in the implementation, maintenance, and follow-up assessment stages reporting PSE changes incorporated at least one complementary strategy during FFY2022. As shown in the table below, evidence-based education (78%) was the complementary approach most frequently incorporated as part of the CalFresh Healthy Living, UC multi-component PSE interventions. Two in five (40%) of these sites reported staff training, more than a quarter (26%) reported parent and community involvement to support the PSE efforts and only 15% incorporated marketing. Overall, 152 (53%) of the 286 sites/organizations reporting PSE changes implemented two or more complementary strategies in coordination with their PSE efforts to enhance the likelihood of impact and sustainability. These findings illustrate how CalFresh Healthy Living, UCCE county programs work toward layering direct education, community engagement and promotional efforts with one or more PSE approaches to achieve more comprehensive nutrition and physical activity programming to facilitate healthy lifestyle changes among SNAP-Ed eligible individuals.

Number of PSE Sites Implementing a Multi-Component Intervention Of Those Implementing or Maintaining PSE Changes Adopted*	Number (%) of Sites (n=286)
Evidence-based education	223 (78%)
Staff training	114 (40%)
Parent/Community involvement	75 (26%)
Marketing	44 (15%)

*Summary statistics include only those PSEs in the implementation and maintenance stages.

SUSTAINABILITY PLANS

In total, 142 (50%) of the 286 sites/organizations in the implementation, maintenance, and follow-up assessment stages reported that efforts had been taken to support the sustainability of the PSE changes adopted. In these sites, at least one of the five sustainability mechanisms was reported as having a “Plan to Adopt”, being “In Process”, or already “In Place.” When examining the PSE sites with sustainability mechanisms, nearly all of the sites reported multiple sustainability mechanisms (98%; n=139) with nearly half (49%; n=69) reporting a “Plan to Adopt”, efforts “In Process”, or already “In Place” for all five of the sustainability mechanisms. The sustainability mechanisms most commonly reported by sites were another organization (not SNAP-Ed) has assumed responsibility for sustaining the PSE (92%) and a dependable, on-going source of funding and/or support (other than SNAP-Ed) has been identified (88%). Additional sustainability efforts reported by county programs are included in the table below.

Number of Sites/Org that Implemented Mechanisms to Support Sustainability of the PSE Changes	Number (%) of Sites (n=286)*
Sites/organizations reporting sustainability efforts/ planning - with at least one sustainability mechanism reported as “Plan to Adopt”, “In Process”, or “In Place”	142 (50%)
Of Those Reporting Sustainability Plans: Number (%) of Sites Reporting "Plan to Adopt", “In Process” or “In Place” for Each Sustainability Mechanism	
Organization or group not dependent on SNAP-Ed funding has assumed responsibility for sustaining the efforts	131 (92%)
A dependable, on-going source of funding and/or support (other than SNAP-Ed) has been identified	125 (88%)
Support from stakeholders is in place to ensure the sustainability of this PSE work	120 (85%)
A monitoring and reporting system has been implemented	113 (80%)
One or more policies was adopted, requiring the changes to be maintained	91 (64%)

*Summary statistics include only those PSEs in the implementation and maintenance stages.

PARTNERSHIPS IN FFY2022

For each partnership entry, the type of partner as well as the assistance provided to and received from the partner is reported. While partnerships include program collaborators other than program delivery sites, the types of partners do reflect the most common program delivery settings. The partnership type reported most often was schools, which represented almost half (46%) of the reported partnerships in FFY2022, followed by early care and education facilities (ECE) representing a quarter (25%). As previously noted, school and ECE sites also represent the most commonly reported sites for direct education and policy, systems and environmental change activities. Many of the other partnership types reflect the variety of delivery settings such as public housing, shelters, farmers markets, etc. However, partners can also be other entities in the community that are not specifically program delivery sites but who do contribute to the implementation of the program (e.g. foundations or nonprofits, public health organizations, hospitals/healthcare organizations, etc.). These reported partnerships also include other Local Implementing Agencies (LIA) that also received SNAP-Ed funding.

PARTNERSHIP BY TYPE

Partnership Type	Number and % of total (n=705)
Schools (K-12, elementary, middle, and high)	323 (46%)
Early care and education facilities (includes child care centers and day care homes as well as Head Start, preschool, and pre-kindergarten programs)	176 (25%)
Public/low-income housing groups	41 (6%)
Agricultural organizations (includes farmers markets)	24 (3%)
Government program/agency (Federal, State, Local, etc.)	23 (3%)
Foundations/philanthropy organizations/nonprofits	20 (3%)
Parks and recreation centers	12 (2%)
Shelter/temporary housing groups	10 (1%)
Faith-based groups	9 (1%)
Human services organizations	9 (1%)
Labor/workforce development groups	9 (1%)
Other: Food banks/food pantries (8), Worksites (8), Community members/individuals (7), Hospitals/healthcare organizations (5), Public health organizations (4), Colleges/Universities (3), Indian Tribal Organizations (2), Other commercial enterprises/businesses (2), Senior housing (2), City and regional planning groups (1), Libraries (1) Media/advertising groups (1), Senior Centers (1), Adult Learners, ESL (1), Afterschool (1), Family Resource Center (1), Youth Development (1)	49 (7%)

UCCE teams also report the assistance received from partners. Across all partnerships (n=705), the top five most frequently reported assistance received from partners was:

- human resources (80%)
- space (64%)
- recruitment (53%)
- planning (46%)
- program implementation (38%)

These responses reflect the critical role partners play in providing staff assistance with program implementation, a location for the work, participant recruitment and collaborative work related to program planning and implementation.

The types of assistance UCCE teams provided to their partners had some similarity. For more than half of the partnerships, the top five most commonly selected types of assistance provided to partners was:

- human resources (83%)
- materials (73%)
- program implementation (71%)
- planning (57%)
- evaluation and tracking (52%)

These responses reflect the UCCE team's role of providing trained staff and materials to implement the program as well as their emphasis on program planning and evaluation.

The FFY2022 PEARS data underscores that CFHL, UC teams are continuing to support their partners and have for many sites been able to transition back to face-to-face delivery and re-engage on PSE-related work. While still not at their pre-COVID-19 levels, reach and the number of implementation sites has increased compared to last year. Additionally, the CFHL, UC state office continues to work with county programs on improved quality assurance and technical assistance for our PEARS Users, including the updates made to PEARS in FFY2023 in preparation for the new national SNAP-Ed reporting system.

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Evaluation Report Attachment #2:

Outcome Evaluation: Measuring CalFresh Healthy Living, UC's Intervention Success via Adult and Youth Evaluation Tools

Project: CalFresh Healthy Living, UC SNAP-Ed Activities in 34 California Counties

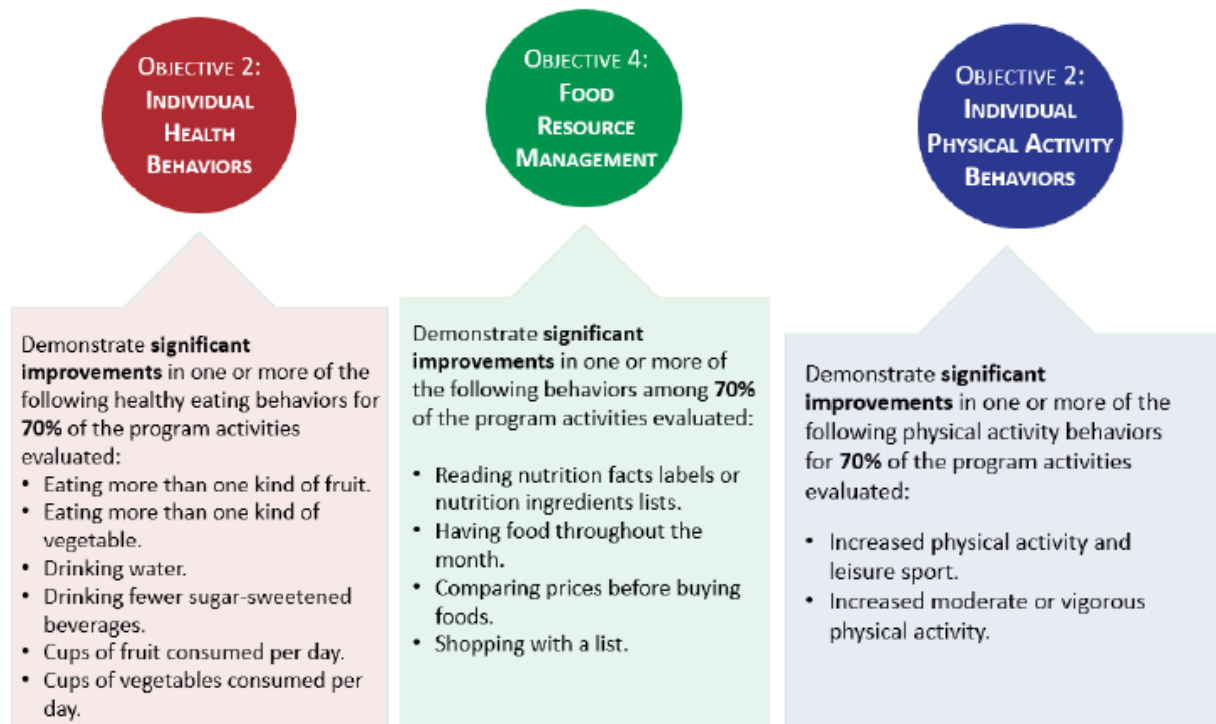
Project Goals:

All CalFresh Healthy Living, UC Cooperative Extension (UCCE) county programs conduct evaluation of their activities applying the CalFresh Healthy Living, UC Evaluation Taskforce recommended evaluation tool(s) and Specific, Measurable, Appropriate, Realistic, and Time-specific (SMART) objectives assigned to the specific curricula or workshop topic they are implementing. The project goals for these evaluation activities are as follows:

- Clearly define the healthy eating, food resource management and physical activity behaviors program services are aiming to promote,
- Recommend evaluation tools for assessing these behaviors appropriate to the intervention strategies being implemented and the age of participants,
- Set SMART targets for expected improvements for the various commonly used evaluation tools,
- Assess progress towards these promoted behaviors and targets among program participants, and
- Program teams review county-specific evaluation results to identify areas for further strengthening and/or emphasis.

This evaluation-related work most directly pertains to the following California SNAP-Ed State Level Goals for FFY 2020-2022:

- **Goal 1:** Empower low-income Californians toward healthful dietary choices and promote the growth of Californian agriculture
 - **Objective 2** – Demonstrate significant improvement in one or more of the Healthy Eating behaviors.
 - **Objective 4** – Demonstrate significant improvement in one or more of the Food Resource Management behaviors.
- **Goal 2:** Promote physically active lifestyles for low-income Californians
 - **Objective 2** – Demonstrate significant improvement in one or more of the Physical Activity behaviors.



The CalFresh Healthy Living, UC's (CFHL, UC) statewide evaluation was originally developed to evaluate the performance and effectiveness of the direct education services. Recommended evaluation tools align with specific curriculum. Additionally, UCCE teams have worked hard to make their programming more comprehensive by incorporating evidence-based policy, systems and environmental (PSE) change strategies. As UCCE county programs support partners to adopt nutrition and physical activity related PSE changes at the same sites where direct education is delivered, the statewide evaluation tools are increasingly capturing the combined effects of direct education and PSE-related work.

Over the past two years, the COVID-19 pandemic resulted in a stay-at-home order issued for California in March of 2020 and continued some in-person restrictions once this order was lifted. This circumstance prevented CalFresh Healthy Living programming from returning to all of the activities planned before the pandemic, resulting in less evaluation data being collected in FFY 2022 than in pre-pandemic FFYs. As a result, the state office evaluation team worked closely with the UCCE teams to adapt evaluation tools and resources to support online administration. The CFHL, UC state office team developed both online curricula delivery and evaluation methods to accommodate in-person restrictions and better serve and reach CalFresh Food-eligible participants and continue to tailor delivery methods as needed to reach the communities we serve. In FFY 2022, we saw a return to many in-person direct education activities and therefore resumed using evaluation tools for in-person programming such as the teacher observation and taste test tools.

Evaluation Design:

Depending on the direct education curricula and/or education format being delivered, UCCE county programs administer (in-person or online) the recommended evaluation tool and, when collected in-person, enter the hard copy surveys throughout the year into statewide data entry portals. The CFHL, UC state office analyze and share back with the UCCE county/cluster programs county-specific results and aggregated state-level evaluation results relative to the SMART objectives and SNAP-Ed Evaluation Framework indicators. Most of the evaluation results collected align with the SNAP-Ed Evaluation Framework indicators. However, a few supplemental measures are also collected by UCCE teams assessing important precursors to dietary behavior change such as child feeding practices.

A variety of practitioner-oriented evaluation methods are used including pre/post surveys, retrospective surveys, teacher observations, and brief surveys administered at the end of single session workshops or immediately following taste tests. Historically, most of the evaluation instruments are administered in written form – paper and pencil or pen – but during FFY 2022 online data collection was also used for curricula delivered virtually.

The FFY 2022 CFHL, UC direct education evaluation results are summarized below with the youth program findings presented first, followed by the adult program findings.

Results:

Evaluation of Youth Programming

The majority of CFHL, UC nutrition education is provided to preschool and school age children. This summary includes results from the two youth evaluation tools most commonly used across multiple direct education curricula and typically completed by teaching staff (Teacher Observation Tool -TOT and Youth Taste Test Tool - YTTT), as well as two additional taste test tools for food tasting conducted in the cafeteria setting and with youth children (Large Group Taste Test Tool - LG TTT and Preschool Taste Test Tool - Pre-K TTT), a youth pre/post behavioral survey for older students grades 4th and higher (Eating and Activity Tool for Students - EATS), and a youth physical activity observation tool completed by teachers (Physical Activity Teacher Observation Tool - PA TOT).

The COVID-19 pandemic and related shut-downs that first occurred in March 2020, affected the ability of programs to collect evaluation surveys as planned over the past couple years. However, in FFY2022 we saw a rebound in both the number of youth surveys collected and the types of youth evaluation tools administered. The program continues to provide virtual direct education as part of the program delivery methods and uses online youth evaluation tools, when age-appropriate.

Teacher Observation Tool (TOT)

The TOT tool was developed to create a retrospective evaluation measure that could be used with the various curriculum delivered by CFHL, UC youth programs. Teachers, youth

program leaders, and other extenders at the participating sites are trained to deliver UCCE nutrition curricula such as *Happy Healthy Me*, *Eating Healthy from Farm to Fork*, *My Amazing Body*, *Good for Me and You*, and *It's My Choice*. The TOT collects information on teachers' perceptions and observations related to the changes in knowledge and behavior among students as well as changes in their own nutrition and physical activity related practices after delivering UC developed nutrition curricula. The TOT is especially appropriate for the lower grade levels when student pre/post surveys is not feasible. The TOT is typically collected at the end of the school year.

In FFY 2022, 321 teachers completed the retrospective TOT questions on behalf of their 6,241 students across 15 counties. Thirty-six percent of these students were preschool students, 18% were Kindergarten-2nd graders, 33% were 3rd-5th graders, and 13% were 6th-8th graders.

As a result of CalFresh Healthy Living, UC nutrition education, the following percentage of teachers "Strongly Agree" or "Agree"¹ that compared to the beginning of the year more students now:

- 97% - Are able to identify healthy food choices,
- 91% - Wash hands more often before handling food,
- 89% - Are willing to try new foods offered at school,
- 75% - Choose fruits and/or vegetables in the cafeteria or during classroom parties, and
- 74% - Bring fruit and/or veggies as a snack.

Furthermore, compared to the beginning of the school year teachers also reported changes in their own behaviors. Some highlights include teachers who report "A lot more often" engaging in the following:

- 60% - Encourage students to be physically active,
- 57% - Encourage students to eat breakfast,
- 47% - Make healthier personal food choices,
- 39% - Remind families to bring healthy snacks for school parties, and
- 31% - Offer healthy food choices to students (at parties, snacks, rewards).

Many of these positive changes in teacher and child behaviors move beyond the individual factors of the Socio-Ecological Model (SEM) and are affecting environmental settings. Additionally, these findings are supported by FFY 2022 PSE findings, which highlight improved access to structured and unstructured PA as well as classroom PA breaks; access to and utilization of edible gardens and fresh produce, as well as distributions of seedlings for home gardening, and closer collaboration between classroom and cafeteria through coordinated tastings; Smarter Lunchrooms Movement strategies to expand point of decision and meal server prompts for healthy eating; and CFHL, UC staff participation on school and district School Wellness Committees resulting

¹ Excluding "Unable to discover / NA".

in improvements to district wellness policies and offering districtwide professional development trainings for teaching staff related to gardens and structured PA.

Statewide and county specific TOT results are examined against **two SMART objectives**:

1. 75% or more “Agree” or “Strongly Agree” that compared to the beginning of the school year, more students can now identify healthy food choices, and
2. 75% or more “Agree” or “Strongly Agree” that compared to the beginning of the school year, more students are now willing to try new foods offered at school.

In FFY 2022, over ninety-five percent of teachers statewide either “strongly agreed” or “agreed” that more students now can **identify healthy food choices**, while over eighty-five percent stated that more students now are **willing to try new foods offered at school** compared to the beginning of the school year. These findings surpass both of the SMART Objectives set at 75% or more.



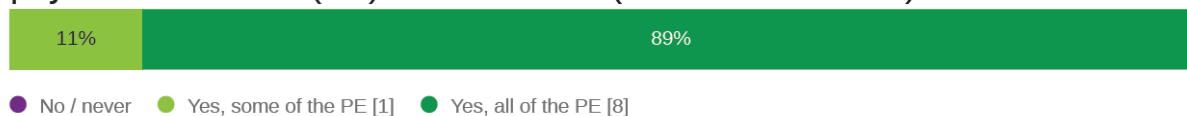
Note: These SMART Objective analyses exclude “Unable to discover / NA” responses.

Physical Activity Teacher Observation Tool (PA TOT)

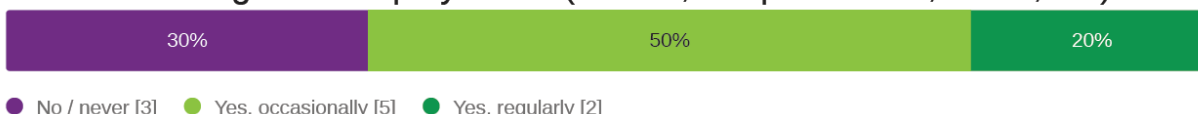
The PA TOT evaluates structured physical activity interventions (such as CATCH or SPARK) that aim to improve youth physical activity behaviors and opportunities at ECE, school, and afterschool sites. CFHL, UC county programs began piloting this new tool in FFY 2019 with limited use during the past few years due to the impacts of COVID on programming and evaluation, so there are currently no SMART Objectives established.

The PA TOT results speak to the various physical activity (PA) related behavior changes teachers are observing in their students as well as changes in their own behaviors. In FFY 2022, 10 PA TOTs were collected from teaching staff in ECE sites and schools representing observations of 245 youth from 2 counties. All of the teaching staff surveyed delivered structured PA through CATCH (n=10). As shown below, teaching staff indicated being largely responsible for PE for their class and/or supervising outdoor play times “occasionally” or “regularly”.

Percentage of teachers responding that they are responsible for providing physical education (PE) for their class (out of school sites)

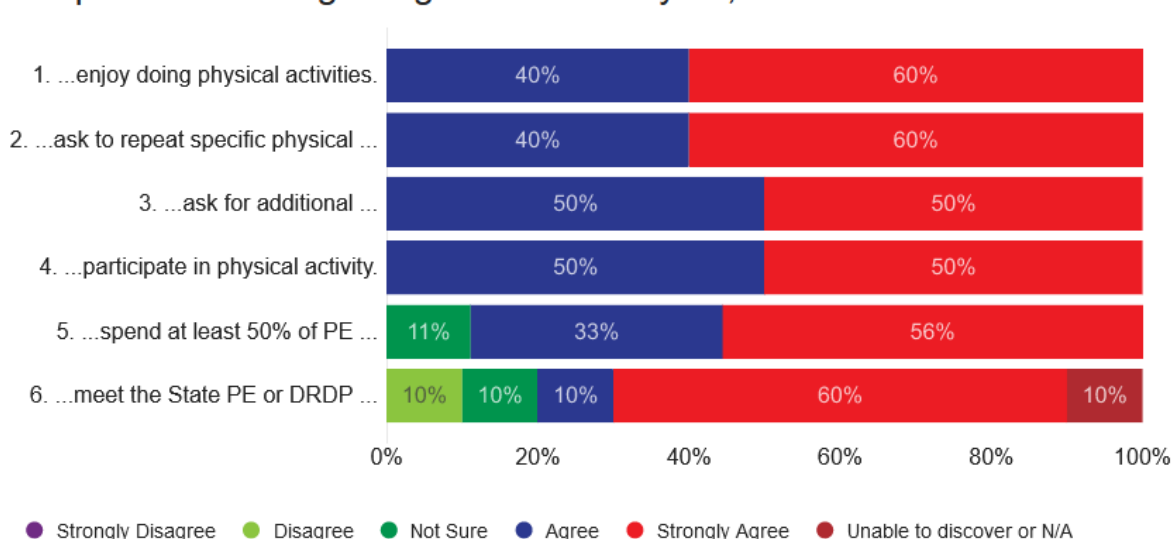


Percentage of teachers responding that they are responsible for supervising students during outdoor play times (recess, am/pm breaks, lunch, etc)



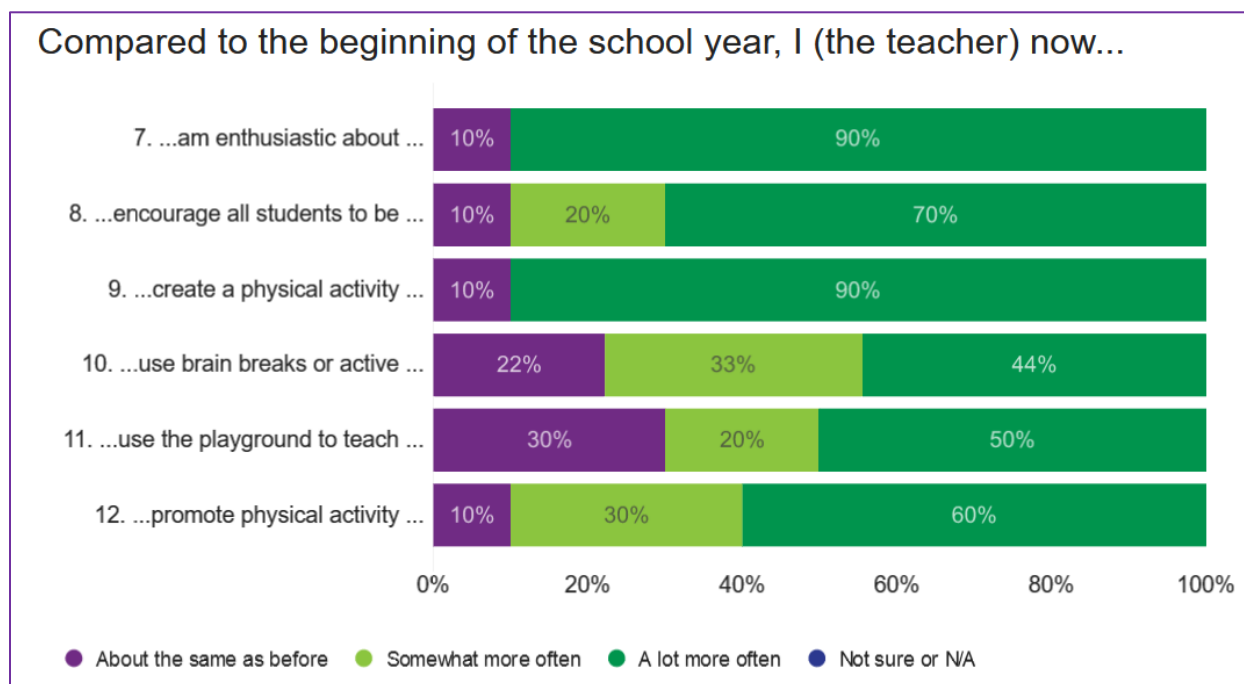
As shown below, over ninety percent of teaching staff statewide either “agreed” or “strongly agreed” that more students now enjoy and participate in PA, as well as **ask to repeat specific physical activities** introduced during the year and **for additional opportunities for PA** compared to the beginning of the school year. For PA TOTs collected at schools (n=9), all but one (89%) of the teachers surveyed either “agreed” or “strongly agreed” that more students now spend at least 50% of physical education (PE) time in moderate or vigorous PA (MVPA). The majority (70%) of teaching staff at school and ECE sites also “agreed” or “strongly agreed” that more students now meet State PE or Desired Results Developmental Profile (DRDP) PA standards.

Compared to the beginning of the school year, more students now...



Ninety percent of teaching staff reported differences in their behaviors compared to the beginning of the school year that support student physical activity. These include teacher’s reporting “I now: ...am **enthusiastic about PA**, ...**encourage all students to be actively involved during PE/structured play times**, and ...**create a PA**

environment that supports students at all ability levels” either “Somewhat more often” or “A lot more often”. The large majority of teaching staff were also more likely (e.g. reporting “Somewhat more often” or “A lot more often”) to **use brain breaks or active energizers with my class** (schools only), **use the playground to teach academic concepts** through movement, and **promote PA opportunities outside of the school day**. These findings represent key outcomes of the CATCH program which promotes a fun, engaging, and safe environment for physical activity among all children participating.



Youth Taste Test Tool (YTTT)

In collaboration with the UCCE Evaluation Taskforce members, CalFresh Healthy Living, UC has developed and validated a simple YTTT to evaluate youth response to food tastings that are coupled with classroom nutrition education. These findings are included in a paper published in *the Journal of the Academy of Nutrition and Dietetics*².

Exposure to healthy foods is particularly important for children in low-income households where availability of fruits and vegetables is low, and limited resources discourage parents from experimenting with new foods that their children might reject. A goal of the CFHL, UC youth program is to increase willingness to try new healthy foods and encourage children to ask for these foods at home. Other studies have shown willingness to try fruits and vegetables and children asking parents to buy these foods are associated

² Kaiser LL, Schneider C, Mendoza C, George G, Neelon M, Roche B, Ginsburg D. Development and Use of an Evaluation Tool for Taste Testing Activities by School-Aged Children, *J Acad Nutr Diet* 2012; 112:2028-2034

with greater household purchases of fruits and vegetables³ and fruit and vegetable consumption in school-aged children⁴.

Overall, 1,414 tastings were conducted with 24,404 students from 23 counties in FFY 2022. These numbers are compiled from multiple tastings in classrooms – sometimes with the same students. Of the students participating in food tastings, 7% were preschool students, 16% were kindergarten students, 38% were in 1st-3rd grades, 25% in 4th-6th grades, 2% in 7th-8th grades, and 13% came from multiple or mixed grade groups.

Across all categories of healthy food items tasted in the CalFresh Healthy Living, UC youth program:

- 39% of youth reported having tasted the target food before,
- 93% actually tried the food featured for the tasting,
- 71% reported willingness to eat the food again, and
- 65% reported being willing to ask for the food at home.

The results are promising in determining students' willingness to try the target foods and their willingness to ask for this food at home. The findings also underscore the great variety of taste testing opportunities the program is providing. County programs can use their YTTT results to make informed choices about which foods and food groups to target next year. Findings can also be used to increase the variety of food preferences by pairing foods less desired or novel with those generally considered as highly appealing for food tastings to reinforce the nutrition education messages delivered. Additionally, county programs can use their YTTT results to inform PSE opportunities on the school campus such as foods offered in the cafeteria or on the salad bar, to inform orders for locally grown produce, or other ways to collaborate with food services.

Statewide and county specific TTT results are examined against **three SMART objectives**:

1. 40% or less will have not tasted the food before,
2. More than 75% will be willing to eat the food again, and
3. More than 60% will be willing to ask for this food at home.

In FFY 2022, the findings surpassed one of the three SMART Objectives which focused on youth intentions related to a willingness to ask for the target food item at home. One of the SMART objectives for this evaluation tool is to have greater than 75% of students report that they would be willing to eat the item again. Although this objective was not achieved in FFY 2022, results were just short of the goal at 71% of students and research supports these findings indicating that it often takes multiple exposures to a new food to

³ Busick DB, Brooks J, Pernecky S, Dawson R, Petzoldt J. Parent food purchases as a measure of exposure and preschool-aged children's willingness to identify and taste fruit and vegetables. *Appetite* 2008; 51(3): 468-473.

⁴ Sandeno C, Wolf G, Drake T, Reicks M. Behavioral strategies to increase fruit and vegetable intake by fourth- through sixth-grade students. *J Am Diet Assoc.* 2000;100(7): 828-830.

change children's food preferences⁵. Another of the SMART objectives for this evaluation tool is to have 40% or less of students reporting they have not tasted the food before in order to put an emphasis on continuing to introduce new, appealing foods. However, as shown in the research cited above, it is sometimes equally important to provide multiple exposures to the same food in order to improve food preferences among children. These results will be discussed with the CFHL, UCCE Evaluation Workgroup to determine whether the guidance and/or SMART objectives related to food tasting may need to be updated to reflect current taste test practices among students.

Large Group Taste Test Tool (LG TTT)

In FFY 2022, UCCE teams resumed using the Large Group Taste Test Tool (LG TTT) to conducting food tastings in partnership with the School Food Program with large groups of students rather than solely in the classroom setting. Often, these groups include multiple grades and are typically done in the cafeteria but also possibly in an afterschool or playground setting. The tool includes five different sets of questions so UCCE teams can tailor the questions they select to collect student feedback. One or more sets of questions are selected, depending on what is most appropriate to the setting and purpose. A participatory "voting" approach is most often used with students either dropping their food sample cup in small buckets with either two or three smiley faced. Other approaches are also used such as a voting booth, iPad or tablet with a "thumbs up" or "thumbs down" icon, or a large wall-size laminated poster for capturing post-it note "votes". As with each of the taste test evaluations tools, responses are aggregated and reported for a specific tasting "event".

The question sets included:

- Three types of *preference* questions:
 1. "Tell us what you think about [food/recipe]" with 3 response options
 2. "Tell us what you think about [food/recipe]" with 2 response options
 3. "Would you like to see [food/recipe] on the menu?"
- One *intention* question:
 1. "What you try [food/recipe] again?"
- One *change-over-the-year* question:
 1. "Since the start of this school year..."

Overall, 74 tastings were evaluated using the LG TTT in 9 counties during FFY 2022. Taste tests were most often conducted in support of Cooking Academy, Harvest of the Month, Smarter Lunchrooms Movement, and Farm to School efforts. Approximately two-thirds of the foods tasted were mixed food or menu items and one-third were single, uncooked food items. UCCE teams could include more than one set of questions on the LG TTT during each tasting. Across all categories of healthy food items tasted in the

⁵ Birch L, Savage JS, Ventura A. Influences on the Development of Children's Eating Behaviours: From Infancy to Adolescence. Can J Diet Pract Res. 2007; 68(1): s1–s56.

CalFresh Healthy Living, UC youth program, results by each question set are presented below.

Preference Question Results

A total of 35 surveys were collected from 6,055 students using the 3-response option preference question, “Tell us what you think about [food/recipe].” Student responses included:

- 64% - *I loved it!* – with large smile face
- 21% - *I liked it* – with smaller smile face
- 16% - *Not today* – face not smiling

For the 2-response option version of the, “Tell us what you think about [food/recipe],” preference question set, 8 surveys were collected with 1,733 students. Student responses included:

- 60% - *I liked it!* smile face or thumbs up
- 40% - *I don’t like it!* face no smile or thumbs down

Another 2 surveys were collected using the third preference question set, “Would you like to see [food/recipe] on the menu?” with a total of 267 students. Student responses included:

- 66% - *Yes or Liked or Thumbs Up or Smiley Face*
- 34% - *No or Disliked or Thumbs Down or Face No Smile*

Intention Question Results

In total, 34 surveys were collected utilizing the one *intention* question, “What you try [food/recipe] again?” with 7,355 students. Student responses included:

- 73% - *Yes or Thumbs Up*
- 27% - *No or Thumbs Down*

Change-Over-The-Year Question Results

The change-over-the-year question, “Since the start of this school year...” was not utilized by any counties in FFY 2022.

The results are promising in determining the students’ acceptance of targeted foods, as well as the ability to reach a greater student population while efficiently capturing evaluation results. This information can help the school and cafeteria to quickly capture feedback regarding what types of new foods are appealing to students and ideal for introducing into school meals to ensure a wider variety of healthy foods is available to students. Coordinating cafeteria tasting with food service staff can also assist with identifying appealing recipes or preparations of new, locally-grown produce that students may not have tasted and help improve preferences for any produce items that are not being selected and/or eaten by students.

Preschool Taste Test Tool (Pre-K TTT)

In FFY 2022, UCCE teams resumed using the simplified Preschool Taste Test Tool (Pre-K TTT) to evaluate taste tests conducted with younger children. In the past, these data

were collected using the YTTT, but UCCE teams recommended designing a simplified and developmentally appropriate tool and approach for preschool children to ensure the accuracy of the data collected.

In total, 12 surveys were collected from 2 counties, representing 120 preschoolers participating in taste tests. On average, across the surveys a vast majority (95%) of the children tried the target food and over three-quarters (79%) of them expressed a willingness to eat the item again.

The results are promising in determining the children's willingness to not only try new foods, but their willingness to eat the item again. County programs can use their Pre-K TTT results to make informed choices about which foods and food groups to target next year; as well as to inform PSE opportunities at the site such as foods offered as snacks or meals and the types of produce to plant in edible gardens; and potential collaboration with parents to reinforce healthy food consumption at home.

Eating and Activity Tracking Survey (EATS)

The Eating and Activity Tool for Students (EATS) was a new youth pre/post behavioral survey used by three State Implementing Agencies (SIAs) in FFY 2020. As part of their evaluation work with CDPH, NPI developed and tested EATS based on the Youth Nutrition and Physical Activity Survey that had been administered in California for many years (see SNAP-Ed Connections Resource Library [here](#)). CFHL, UC introduced EATS to CFHL, UC Cooperative Extension (UCCE) programs for use with students in grades 4th and higher. CFHL, UC adapted the administration protocol and instrument to utilize a modular approach and include recall prompts for physical activity. Depending on the intervention focus, UCCE teams selected which of the three EATS modules to administer the: Fruit and Vegetable Module (8 items), Sugar Sweetened Beverages (7 items) and Water (1 item) Module, and/or Physical Activity Module (6 items in elementary school survey or 4 items in middle and high school survey).

In FFY 2022, many CFHL, UCCE programs resumed collecting EATS both in-person at elementary schools and both in-person and online in middle and high schools. In total, 732 youth participants (4th-11th grade) across 13 counties completed the EATS pre and post surveys resulting in 731 Fruit and Vegetable Module responses, 482 Sweetened Beverages and Water Module responses, and 608 Physical Activity Module responses.

Fruit and Vegetable Module Results

The Fruit and Vegetable Module assesses students' success eating fresh, frozen, canned, and dried fruits and vegetables more times and French fries or chips less times from the pre to post survey. Over a quarter to one-third of students (26% - 34%) reported that they ate more of most of the fruits and vegetables asked about, including starchy vegetables (potatoes, corn, or peas), green vegetables (spinach, broccoli, green beans), "other" vegetables (tomatoes, peppers, cucumbers, celery), fruit, 100% fruit juice, and less of the less nutritious food item category, French fries or chips. Just under a quarter (22%) ate more orange vegetables (carrots, squash, sweet potatoes). The smallest increase in students reporting greater consumption of the promoted fruits or vegetables

was for beans, with only 17% of students reporting that they consumed more beans on the post-survey. On average, youth increased their consumption of fruits, 100% juice, vegetables, and beans from 5.69 times at pre to 5.83 times at post (+0.14 times, not significant). Significant gains were found from pre to post in the number of times students consumed vegetables when beans were excluded. This suggests that although bean consumption changed little from pre to post, the sum of the pre to post changes in the other vegetable items (starchy, orange, green, and other vegetables) showed a statistically significant increase (+0.19, $p<.05$). When examining individual question items, there was a statistically significant decrease in times eating French fries or chips from pre to post (-0.09, $p<.05$) and starchy vegetables showed a statistically significant increase in times consumed from pre to post (+0.11, $p<.01$).

Sweetened Beverage and Water Module Results

The Sweetened Beverage and Water Module assesses students' success drinking sweetened beverages less times and water more times from pre to post. Reductions in reported consumption of sweetened beverages from the pre- to post-survey ranged from 9% of students drinking energy drinks less times to nearly one-third (32%) of students drinking flavored milks (chocolate milk, horchata, yogurt drinks) less times. In fact, there was a statistically significant decrease in flavored milk consumption from pre to post (-0.16, $p<.000$). Approximately one-quarter (24%) of students reported drinking fruit drinks such as lemonade less often and over one-fifth (21%) drank regular soda fewer times from pre to post. The percentage of youth reporting improvements for each type of beverage is presented below in declining order:

Beverage Type	Improvement in Percentage Points
Flavored Milks	-32%
Fruit Drinks	-24%
Regular Soda	-21%
Sweetened Coffee/Tea	-18%
Sports Drinks	-17%
Diet Soda	-11%
Energy Drinks	-9%
Water	+18%

In contrast to the reductions observed in sweetened beverage consumption, nearly one in five (18%) of the youth surveyed reported drinking water more times when completing the post-survey.

Physical Activity Module Results

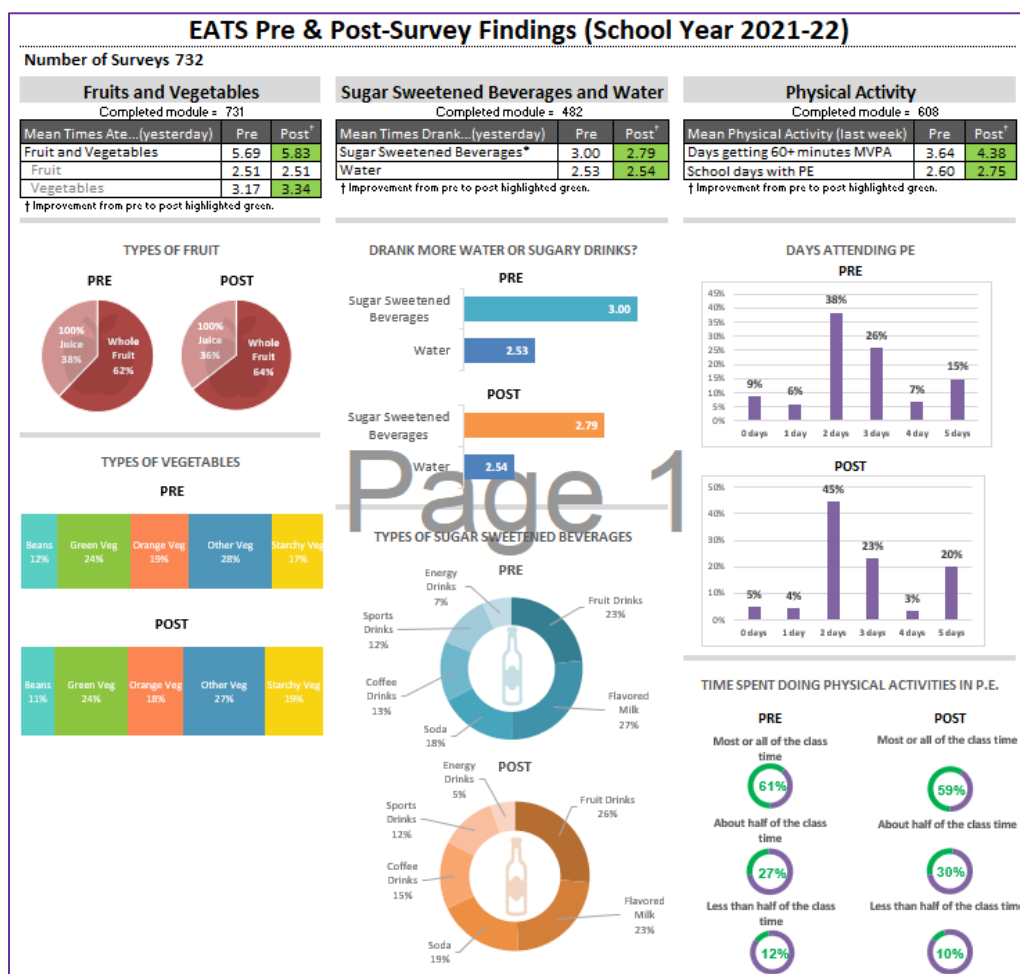
The Physical Activity Module focused on the number of days and amount of time that students were physically activity, including in and out of the school setting. Improvements in youth physical activity from pre to post were most commonly reported for the number of days in the past week students were active for at least 60 minutes (49%). The

percentages of students who reported being more physically active from the pre to post survey are presented below in declining order:

- 49% - Days with 60+ minutes of physical activity (last week)
- 24% - Days of physical education (PE) (last week)
- 23% - Time in PE spent doing physical activities (last week)
- 16% - Time at recess spent doing physical activities (last week; only elementary)
- 12% - Days with recess at school (last week; only elementary)

Statistically significant increases were found in the mean number of days students reported being physically active for 60 or more minutes (+0.74 times, $p < .000$), days with PE (+0.15 times, $p < .05$), and days with recess at elementary schools only (+0.05 times, $p < .05$).

The graphic below shows a user-friendly presentation of the EATS pre- and post-survey findings developed to highlight summary results from the 2021-2022 school year. County programs are encouraged to share their EATS results with stakeholders in the communities they serve using this engaging new visual format. These results can be filtered and displayed by classroom, grade, or school to best meet partner needs and facilitate collaboration on program improvement.



What Did You Learn? (WDYL)

In FFY 2022, UCCE teams continued to use the 2-item WDYL retrospective survey as an innovative option for collecting open-ended qualitative feedback from students. During COVID school closures, a need was identified for a simple but broadly applicable evaluation tool for youth programming. Once UCCE teams returned to in-person delivery, they still felt this was a valuable contribution to the youth tools currently available. The WDYL qualitative retrospective survey was designed as a flexible and quick approach for collecting information about any changes in nutrition and physical activity knowledge and behaviors from students in grades 4th and higher. This survey was used in schools and other youth education settings where two or more sessions of series based direct education were delivered virtually using approved CFHL, UC curricula. The questions include: 1) *“What, if anything, is one thing that you learned from these classes?”* and 2) *“What, if anything, is one thing that you do differently because of these classes?”*.

In total, 731 surveys were collected from 9 counties. Youth respondents ranged from 4th-12th grade although most were in the 4th or 5th grades, 34% and 42% respectively. This flexible evaluation tool was used for a variety of curricula with the most common being:

- Up4It! – Level 1 (4-5th grade) and Level 2 (5th-6th grade),
- Nutrition to Grow On (4-6th grade), and
- TWIGS (K-8th grade) (garden enhanced nutrition education).

Additional primary curricula identified, but less frequently reported included:

- Let’s Eat Healthy for Teens (9-12th grade),
- Choice, Control and Change (6-12th grade),
- Nutrition Pathfinders/Let’s Eat Healthy Video Series (5-6th grade),
- Discovering Healthy Choices (4-6th grade), and
- Cooking for Health Academy.

Because student responses typically reflected the specific curricula and learning activities being implemented, WDYL results are most useful for providing class, site, or curricula specific feedback to community educators. The open-ended responses provide insight into what information and actions are most memorable or notable to students. Overall, students shared a great variety of specific responses about what they had learned from the CFHL, UC classes but examples of broad categories of responses are summarized below. (Please note that minor spelling errors were corrected in the *quoted student responses* bulleted below.)

Eating Healthy and Nutrition Information

Across the various curricula, one of the most common themes students mentioned learning about was the importance, benefits or strategies for eating healthy with many students specifically mentioning vegetables and/or fruits. Example comments included:

- *What I learned from this class was is that you need to be healthy and smart with what you choose to eat/drink*
- *How to eat healthier*

- *I have learned that how fruits and vegetables are good for you and how they act in your body*
- *What I learned is that we have to eat healthier*
- *That eating healthy makes me healthy*
- *To stay healthy and try new food and veggies*
- *One thing that I have learned about the amazing classes we took is what we should eat more of and what to eat less of*

Another common theme students mentioned learning was nutrition information with their comments specifically referencing vitamins, nutrients, minerals, calories, carbohydrates, fats or energy in some way or mentioning MyPlate, food groups or eat “the rainbow”.

Example comments included:

- *I learned what food has more carbs and sugar and also that thanks to carbohydrates my body has energy*
- *I learned what nutrients our bodies need to stay healthy*
- *That iron is good for you*
- *To have a balanced diet to get the right amount of nutrients*
- *MyPlate, fruits, vegetables, sugar drinks, grains, and protein*
- *I learned about calories*
- *I learned about MyPlate that has fruit, vegetable, grain, protein, and dairy*
- *One thing I learned was that it's good to eat "the rainbow". It is always good to have different colored fruits or food in general to eat everyday*

In terms of what students reported **doing differently**, one of the most common themes the diverse responses related to was **changing eating habits**. Example comments included:

- *I try to include more of the food groups into each meal*
- *I try and focus on what I eat*
- *One thing I do differently because of these classes is include more fruit and vegetables into my meals*
- *I eat a lot more vegetables*
- *Trying new food*
- *I eat differently because of this class. I used to eat very badly until this class came*

Water and Rethink Your Drink

Students also mentioned learning about the importance of drinking water, various ReThink Your Drink messages and information related to Sugar Sweetened Beverages (SSB). Plans to drink more water and drink fewer SSBs were another theme for students' responses to what they do differently because of the classes. Example comments included:

- *I drink a lot more water now*
- *I use to drink a lot of sugary drinks now I don't and also I set myself a goal to drink a whole bottle of water and if I finish my bottle then I refill ...*
- *Not drink soda a lot and drink more water*

- *1 thing i will do differently is drink less unhealthy drinks*

Physical Activity and Health

While mentioned less frequently than food, nutrition or garden-related topics, some student responses also reflected the importance of physical activity and the connection between exercise and health. Some students commented on learning the following:

- *I learned that physical activity is very important*
- *I learned it's healthy to not be sedentary.*
- *I learned to limit your screen time to only 2 hours a day*

Similarly, some students also mentioned doing more exercise or limiting screen time. When asked what they do differently, example comments included:

- *I try to exercise more often*
- *I spend less time on electronics*
- *One thing that I do differently now after we learned about nutrition is that I go outside every day for 40 minutes and play either soccer or basketball with my little brother*
- *I'm more active and go outside more.*

Cooking

Certain curricula such as Cooking for Health Academy have a particular focus on cooking which was also reflected in student responses. Students who had participated in Cooking Academy mentioned learning about certain recipes or food preparation skills:

- *I learned some new healthy recipes and how to use a knife and cut.*
- *That I am good at cooking.*
- *I learned that the tortilla pizza is actually kind of good.*

They also mentioned doing things differently related to cooking such as:

- *I cook better*
- *I can cut by myself more*
- *Make parents food*
- *Make smoothies more often*

Gardening

Students who had participated in TWIGS garden enhanced nutrition education also referred to what they learned and were doing differently related to gardening. Student comments about what they had learned included the following:

- *The way plants grow, how food I never had tastes and when plants grow/ good time to plant food/plants.*
- *I learned that planning what plant you're gonna plant is important because some soak up all the nutrients from the soil.*
- *I learn that multiple things that I eat are in different category like stem, leaf, flower, fruit, seed, and roots.*
- *One thing I learned was when is the best time to plant seeds.*

- *One thing that I learned was how we tasted our food products and how we pulled out weeds and onions.*

Students also mentioned gardening in response to the question about what they do or will do differently. For example, students mentioned:

- *The one thing I do differently is how I do gardening.*
- *I will make a garden bed at home with my dad so we can have the same success from school.*
- *I have started a herb garden at home, and try to do propagation experiments at home.*
- *I might go to the store buy seeds and plant them in my grandma's front yard.*
- *i know how to use the shovel and hoe*
- *I eat more carrots*

Another commonly mentioned topic was the importance of sleep. One of the commonly reported curricula for 4th-6th graders called Up4It! includes recommendations for adequate sleep as well as good nutrition and physical activity. A number of students participating in these classes referenced the importance of sleep to good health and that they were either trying to sleep more and/or changing their sleep habits or patterns.

Evaluation of Adult Programming

CalFresh Healthy Living, UC adult education focuses on healthy eating, food resource management (FRM), physical activity (PA), and family-centered education including child feeding practices. For the healthy food and beverage behaviors, adult evaluation results come from two evaluation tools during FFY22 (Intent to Change – ITC and Food Behavior Checklist – FBC). The FBC survey also included three Expanded Food and Nutrition Education Program (EFNEP) survey questions used to measure potential changes in adult physical activity behaviors (FBC+PA). FRM education is one of the most requested educational trainings that UCCE county/cluster programs offer eligible adults. Successfully procuring healthy foods throughout the month while reducing instances of food insecurity can be positively influenced by an individual's ability to assess nutritional values of available food resources, plan meals in advance, budget their limited food dollars, and critically assess the impact of food marketing on their buying behaviors. UCCE county/cluster programs deliver FRM education using *Making Every Dollar Count* and *Plan, Shop, Save, & Cook* and evaluate these curricula with a pre/post survey assessing FRM behaviors. In addition, adult education focused on child feeding practices is delivered using the *Healthy Happy Families* curriculum and evaluated using a curriculum specific pre/post parent survey.

Similar to with youth data collection, the state office saw a rebound in the number and types of adult surveys collected during FFY 2022 following the previous years' challenges collecting evaluation data due to COVID-19. Over 1,800 ITC surveys and approximately 1,150 matched pre-post surveys were collected from adult participants. UCCE county/cluster programs continue to provide virtual direct education as part of their

program delivery options and use online adult evaluation tools with virtual distance learning classes. Spanish and English language versions of each of the adult evaluation tools are available in either PEARS or Qualtrics for adult participants to complete online using public survey links or QR codes.

Intent to Change (ITC) Surveys

The Intent to Change (ITC) surveys are used to evaluate either single session or short duration (less than one month) education. The findings can be used to report against the SNAP-Ed Evaluation Framework short-term goal and intention indicators related to healthy eating, food resource management and physical activity.

The brief – only three question – survey focuses on a single behavior. Collected at the end of the lesson, participants are asked about their current or recent practices related to the behavior e.g. “During the past week, did you drink a sweet beverage (regular sodas, sports drinks, fruit punches, teas or other drinks sweetened with sugar) every day?” with “Yes”/“No” response options. The next question asks about participants’ future intentions: “Within the next week, how often will you drink a sweet beverage?” with “Same as before”/“Less often” response options. The final open-ended question asks participants to share how the workshop will help them and their families.

While not designed to measure change in participants’ behaviors, the ITCs do provide useful information about participants’ current behaviors and their readiness to change. Examining the intention responses for just those participants not currently practicing the promoted or desirable behavior is especially valuable for identifying potential for improvement. Additionally, asking participants to reflect upon and report their intentions regarding a specific behavior can help to “nudge” or encourage participants to take action. Finally, responses to the open-ended question provide insight into the aspects of the workshop participants found most valuable to allow for further program strengthening. Participant observations and quotes are also useful for program materials and reports.

The FFY 2022 ITC statewide results (n=1,866) collected across 18 counties have been organized into summary tables reporting:

- the number of participants surveyed,
- the percentage not currently practicing the desirable behavior, and
- of those not currently practicing the desirable behavior, the percentage who reported the intention to practice the desirable behavior “more often” in the next week.

Results are summarized below for 10 of the 16 ITCs that were collected in PEARS. Of the three ITC healthy eating behaviors for which ITCs were reported (Table 1), eating foods from all five food groups each day had the highest percentage of participants (36%) reporting that they **did not** practice the desirable behavior during the past week. Of those participants not already practicing these three healthy eating behaviors, the large majority (60-89%) reported the intention to do so “more often” in the next week after participating in CFHL, UC nutrition education.

Table 1. Intent to Change for Behaviors Related to Increasing the Consumption of Healthy Foods and Beverages

Current Behavior			Intended Behavior – Of those not currently practicing the desired behavior		
During the past week, ate ...	N	% not practicing the desirable behavior	Within the next week, will eat [or drink]	N	% reporting “more often”
foods from all 5 food groups each day	97	36%	foods from all 5 food groups each day	35	89%
fruit at least 2 times a day	26	19%	Fruit	5	60%
more than 1 kind of vegetable each day	224	19%	more than 1 kind of vegetable each day	41	80%

Table 2 displays the ITC topic related to the consumption of sugar sweetened beverages. Nearly two-thirds (72%) of participants reported drinking sugar sweetened beverages every day over the past week suggesting there is more room for improvement to reduce the consumption of sugar sweetened beverages. Of those who practiced this less desirable behavior during the past week, more than four out of five (82%) participants reported the intention to drink sweetened beverages “less often” within the next week after participating in CFHL, UC nutrition education.

Table 2. Intent to Change for Behaviors Related to Reducing the Consumption of Sugar Sweetened Beverages

Current Behavior			Intended Behavior – Of those not currently practicing the desired behavior		
During the past week, drank...	N	% practicing the undesirable behavior	Within the next week, will eat [or drink]...	N	% reporting “Less Often”
a sweet beverage (regular sodas, sports drinks, fruit punches, teas or other drinks sweetened with sugar) every day	229	72%	a sweet beverage	165	82%

The next set of ITC topics focus on current and future practices related to Food Resource Management (FRM) behaviors (Table 3). Half of the adult surveyed reported that they **did not** practice the FRM skill of using the “Nutrition Facts” on the food label when choosing foods, while approximately one-third **did not** practice the skills related to comparing unit prices and making a list or planning meals before shopping. Of those not

currently practicing these behaviors, the large majority (61-90%) intended to do so the next time they shopped or choose food after participating in CFHL, UC FRM education.

Table 3. Intent to Change for Behaviors Related to Food Resource Management

Current Behavior			Intended Behavior – Of those not currently practicing the desired behavior		
The last time shopped or bought food,	N	% not practicing the desirable behavior	The next time go shopping or buy food, will...	N	% reporting “yes”
used the “ Nutrition Facts ” on the food label to choose foods?	455	51%	use the “ Nutrition Facts ” on the food label to choose food	231	74%
compared unit prices before choosing foods	180	39%	compare unit prices before choosing foods	71	90%
made a list before going to the store	306	39%	make a list before going to the store	118	74%
planned meals before going to the store	233	36%	plan meals before going to the store	83	61%

Table 4. Intent To Change for Behaviors Related to Physical Activity

Current Behavior			Intended Behavior – Of those not currently practicing the desired behavior		
During the past week...	N	% not practicing the desirable behavior	Within the next week, will ...	N	% reporting “more often”
engaged in moderate physical activity for at least 2½ hours	31	39%	engage in moderate physical activity	12	83%
Was physically active for at least 30 minutes most days	79	19%	be physically active for at least 30 minutes a day	15	73%

Lastly, two ITC surveys focus on participants’ physical activity (PA) (Table 4). Because the PA recommendation is described two different ways in approved curricula – minutes per day or hours per week – two separate ITCs are available for evaluating adult programs depending on the specific PA messaging in the education materials being used. When examining current behavior, nearly two in five (39%) participants reported not meeting the

moderate PA recommendation of 2½ hours per week and almost one in five (19%) adults reported not meeting the recommendation of at least 30 minutes of PA most days. However, for those **not currently practicing** the desired behavior, a large majority of participants (83% and 73%) reported their intention to engage in moderate physical activity for at least 2½ hours and to be physically active for at least 30 minutes most days in the following week after participating in CFHL, UC nutrition and PA education.

Food Behavior Checklist and Physical Activity (FBC+PA)

The visually enhanced FBC pre/post survey is a statewide evaluation tool required for outcome evaluation of series-based nutrition curricula with 4 or more lessons delivered over at least 4 weeks. The FBC measures reported behavior change in food and dietary practices and is used to evaluate several adult curricula including *Eating Smart Being Active*, *Eat Smart Live Strong*, *Learn at Home*, *Eat Healthy Be Active Community Workshops*, *MyPlate for My Family*, and *Food Smarts*. Among these, the *Eating Smart Being Active* curriculum is the most commonly delivered adult series. The curricula currently evaluated by the FBC also target physical activity (PA) behaviors. Therefore, PA outcomes were also collected with the FBC. The Adult Physical Activity Survey was originally piloted in FFY 2019 by CFHL, UC county/cluster programs to evaluate series-based direct education and PSE interventions delivered over at least 4 weeks that target improvements in PA behaviors among adults. With promising PA outcomes observed among adult participants in FFY 2019 and 2020, these three PA questions were added to the FBC and administration of the FBC+PA pre/post survey began in FFY 2021. The FBC dietary questions were reviewed in collaboration with CDSS and other CA SIAs in FFY 2021 and the consensus was to remove dietary questions with smaller effect sizes less commonly targeted by the current nutrition curricula delivered. A reduced length 11 item FBC+PA survey was introduced in FFY 2022.

The FBC+PA pre/post survey is administered before an intervention begins and following the last session. For the pre- and post-surveys, participants are asked to report the frequency that they ate or drank a variety of foods and beverages as well as respond to questions about their food security and PA behaviors (e.g., # of days/week with MVPA for 30+ minutes and muscle strengthening as well as frequency of making small changes to be more active). Results were analyzed in two ways:

- Percentage of participants showing improvement from pre- to post-survey: First, the percentage of participants with any increase or improvement in their responses from pre to post is reported. We defined the percent with improved behavior as the percentage of participants with any increase in the reported frequency of desirable behaviors and with any decrease in the frequency of undesirable behaviors. For example, an increase in a desirable behavior would be if a participant responded “no” to the question “Do you eat more than one kind of fruit each day?” for the pre-survey but for the post-survey responded either “yes, sometimes”, “yes, often”, or “yes, everyday”. An example of an improvement in an undesirable behavior would be a participant who responded “yes, everyday” to the question “Do you drink

regular soda?” in the pre-survey and then at the post-survey responded “yes, sometimes”.

- Statistically significant change from pre- to post-survey: Analysis was also done to compare matched pre and post surveys for statistically significant differences set at $p < .05$.

In addition, statewide and county specific FBC results are examined against **four SMART objectives** as a reference for gauging program performance. These include:

1. At least 50% will increase their frequency of using the “Nutrition Facts” on the food label to choose foods,
2. At least 40% will increase the variety of fruit consumed daily,
3. At least 40% will increase the variety of vegetables consumed daily, and
4. At least 20% will report greater food security (not running out of food at the end of the month).

Although there are no SMART objectives for the PA questions, the data can be analyzed to assess the proportion of adult participants meeting the *Physical Activity Guidelines for Americans*⁶. The two 2018 PA guidelines measured by this tool include:

1. adults should do at least 150 minutes (2 hours and 30 minutes) a week of moderate-intensity PA and
2. adults should also do muscle-strengthening activities of moderate or greater intensity and that involve all major muscle groups on 2 or more days a week.

In FFY 2022, 8 counties collected matched surveys from 375 adult participants. Participants making improvements in any of the desirable dietary or PA behaviors ranged from two out of five (44% drink regular soda) to seven in ten (71% increase cups of fruits and vegetables eaten in a day) of the FBC+PA survey respondents. The percentage of participants who reported improved frequency of desirable eating or PA behaviors are presented below in declining order:

- 71% - Increase in daily fruit and vegetables eaten (cups),
- 65% - Increase in daily vegetables eaten (cups),
- 65% - Increase in daily fruit eaten (cups),
- 63% - Increase in frequency of making small changes to be more active,
- 59% - Increase in number of days exercised for 30 or more minutes,
- 56% - Increase in number of days built and strengthened muscles
- 55% - Eat more than one kind of vegetable each day more often, and
- 51% - Eat more than one kind of fruit each day more often.

Both SMART objectives in this area were exceeded (e.g., more than 40% of participants increased their reported frequency for eating more than one kind of vegetable and more than one kind of fruit each day).

⁶ U.S. Department of Health and Human Services. *Physical Activity Guidelines for Americans*, 2nd edition. Washington, DC: U.S. Department of Health and Human Services; 2018.

The percentage of participants who reported improvement from pre to post by reporting less frequently practicing the undesirable behaviors and experiencing the food security condition were:

- 46% - Drank fruit drinks, sport drinks or punch less frequently,
- 44% - Drank regular soda less frequently, and
- 34% - Ran out of food before the end of the month less frequently.

With over one-third of survey participants reporting improved food security (less likely to run out of food), the SMART objective that 20% or greater participants would report improved food security was also exceeded.

The FBC also includes a single FRM question, which showed 64% of participants reporting improvement in using the “Nutrition Facts” labels when they shop. This exceeds the at least 50% criterion set for this FRM SMART objective.

When examining the two *Physical Activity Guidelines for Americans* in the pre-survey results, just fewer than one in five (19%) of adult respondents reported exercising for at least 30 minutes on five or more days in the past week, while nearly one-third (31%) reported building and strengthening muscles on two or more days in the past week. After attending CFHL, UC series-based education, the proportion of adults achieving these PA recommendations improved significantly from the pre-survey findings (increasing 12% and 31% percentage points respectively, $p < .001$). In addition, there were statistically significant gains from pre to post in the mean number of days adults exercised for at least 30 minutes (+1.19 days, $p < .001$) and reported strengthening muscles (+1.13 days, $p < .001$), as well as in the frequency of making small intentional changes to be more active (+0.87, $p < .001$).

When examining FBC behavioral changes from the pre- to post-survey, there were statistically significant gains of approximately half a cup in FBC participants’ mean daily fruit intake (0.48 cups, $p < .001$) and vegetable intake (0.55 cups, $p < .001$) with a total increase of over a cup (1.04 cups, $p < .001$) of fruit and vegetables per day. Statistically significant ($p < .001$) increases were also found in the proportion of FBC participants who reported the desired behaviors such as “Often” or “Always/Everyday” to healthy eating practices and FRM behaviors, as well as “No” or “Sometimes” to sweetened beverage consumption and running out of food before the end of the month:

- Up by 46% points for use “Nutrition Facts” labels when shopping,
- Up by 36% points for eat more than one kind of vegetable each day,
- Up by 28% points for eat more than one kind of fruit each day,
- Up by 18% points for drank regular soda (*less often*),
- Up by 18% points for drank fruit drinks, sport drinks or punch (*less often*), and
- Up by 9% points for ran out of food before end of the month (*less often*).

In summary, all four of the FBC SMART objectives were exceeded in FFY 2022. These findings demonstrate the positive outcomes of UCCE adult education including significant gains in healthy dietary and physical activity behaviors, reductions in the consumption of

high sugar, low nutrient beverages, improved FRM practices, increased likelihood of meeting the *Physical Activity Guidelines for Americans*, as well as the positive impact on food security among adult program participants. The state office will work closely with the CFHL, UC Evaluation Workgroup to review the PA data collected during FFY 2022 and draft SMART objectives for the PA questions to use in future years.

Food Resource Management (FRM) Evaluation

UCCE county/cluster programs deliver FRM education using the *Plan, Shop, Save, & Cook* (PSSC) and *Making Every Dollar Count* (MEDC) curricula. Evaluation of PSSC and MEDC consists of a 7-item FRM behavior pre- and post-test. For the pre- and post-surveys, participants are asked to rate the frequency on a scale of 1 (Never) to 5 (Almost Always) in which they engage in food behaviors related to resource management and meal planning. The percent with improved behavior is the percentage of participants with any increase or improvement on the scale of 1 to 5 from the pre- to post-survey. For example, a participant could indicate “3-Sometimes” in response to the question “How often do you plan meals ahead of time?” at pre-survey and then at post-survey indicate “4-Most of the time”, and that participant would be counted as a participant with an improvement.

In FFY 2022, 14 counties collected matched pre and post surveys from 742 participants who attended series-based FRM education using the PSSC or MEDC curriculum. Of these participants, the majority identified as female (88%) and reported an ethnic background of Hispanic or Latino descent (82%). Participants reported improvements in the six FRM behaviors and a single food security condition question that ranged from just over two in five (44% improved food security by running out of food less often) to approximately three-quarters (72% improved frequency of using MyPlate to make food choices) of the survey participants. The percentage of participants who reported improved frequency of FRM behaviors and the food security condition are presented below in declining order:

- 72% - Use MyPlate to make food choices,
- 67% - Use “Nutrition Facts” label to make food choices,
- 63% - Plan meals ahead of time,
- 62% - Shop with a grocery list,
- 61% - Compare unit prices before buying food,
- 55% - Think about healthy food choices when feeding your family, and
- 44% - Run out of food before the end of the month **less often**.

Statewide and county specific FRM behavioral outcomes are examined against **six SMART objectives** as a reference for gauging program performance. These include:

1. At least 40% will increase their frequency of meal planning,
2. At least 40% will increase their frequency of using a grocery list when shopping,
3. At least 50% will increase their frequency of using the “Nutrition Facts” on the food label to choose foods,

4. At least 25% will increase their frequency of comparing unit food prices,
5. At least 30% will report that when deciding what to feed their family, they think about healthy food choices, and
6. At least 30% will report greater food security (not running out of food at the end of a month).

The FFY 2022 results indicate that all six SMART objectives were exceeded. Of the 742 participants completing the FRM behavioral pre/post survey, 89% reported improvement in the frequency of using at least one of the five FRM behaviors (i.e. plan, prices, shop, think, or facts).

When examining FRM behavioral changes from the pre- to post-survey, there were statistically significant ($p < .001$) increases in the proportion of participants who reported “Almost always” or “Most of the time” for each of the six FRM behaviors assessed:

- Up by 42% points for planning meals ahead of time,
- Up by 40% points for using “Nutrition Facts” label to make food choices,
- Up by 39% points for using MyPlate to make food choices,
- Up by 38% points for shopping with a grocery list,
- Up by 35% points for comparing unit prices before buying food, and
- Up by 30% points for thinking about healthy food choices when feeding your family.

In addition, the percent of participants reporting “almost always” or “most of the time” for all five of the key FRM behaviors (i.e. plan, prices, shop, think, and facts) increased almost six times from about one in fifteen (7%) at pre to over two in five (41%) of adults at post (+34% points, $p < .001$).

Lastly, there was a statistically significant improvement in food security from pre to post with the percent of participants who reported that they “never” or “seldom” ran out of food before the end of the month increasing from 41% to 65% (+24% points, $p < .001$). Although food security is impacted by a multitude of factors beyond FRM behaviors, more than three in seven (44%) of the adults surveyed reported greater food security from pre to post, thereby surpassing the SMART objective ($\geq 30\%$) for “not running out of food at the end of a month”. Taken together, these findings demonstrate both the significant gains in FRM practices as well as the positive impact on food security among adults participating in the PSSC and MEDC series-based education.

Healthy Happy Families (HHF)

The HHF curriculum consists of eight mini-lessons focused on child feeding practices to help parents promote healthy eating habits in preschool-aged children. When delivered over at least four weeks, evaluation of HHF consists of a 10-item pre- and post-test completed by parents regarding their child feeding practices. The questions were adapted

from the UCCE “My Child at Meal Time” survey⁷ for 3- to 5-year old children. For the pre- and post-surveys, parents are asked to rate the frequency of their child feeding practices on a scale of 1 (No/rarely) to 4 (Very often). The HHF data were analyzed two ways examining both: (1) the percentage of participants showing improvement from the pre- to post-survey and (2) statistically significant changes from the pre- to post-survey. We defined the percent with improved behavior as the percentage of participants with any increase or improvement on the scale of 1 to 4 from the pre- to post-survey. For example, a parent could indicate “1-No/rarely” to the question “My child sits and eats meals with an adult” during the pre-survey and then at the post-survey mark “2-Sometimes”, and that parent would be counted as a participant with an improvement.

In FFY 2022, UCCE administered the HHF in four counties with 32 parents completing a pre- and post-survey. Nearly one-third (31%) to two-thirds (59%) of parents reported improvements in all related child feeding practices. The percentage of participants who reported improved child feeding practices are presented below in declining order:

- 59% - child sits and eats meals with an adult - **more** often,
- 53% - child eats snack at about the same time every day - **more** often,
- 50% - child eats dinner at about the same time every day - **more** often,
- 50% - parent avoids serving foods the child doesn't like - **less** often,
- 47% - parent warns child of no treat if they don't eat - **less** often,
- 44% - parent prepares at least one food the child will eat - **more** often,
- 41% - child sees parent eat vegetables - **more** often,
- 41% - parent begs child to eat food - **less** often,
- 38% - parent reminds child to keep eating food - **less** often,
- 31% - child skips meals - **less** often,

Statewide and county specific HHF results are examined against **seven SMART objectives** as a reference for gauging program performance. After participation in at least six lessons or a four-lesson series (selecting among lessons #1-#3 and #6, #7 or #8) parents will show the following improvements:

1. At least 25% of the parents will report that their children eat meals more often with an adult.
2. At least 25% of the parents will report that they intervene less often with how much their children should eat by:
 - a. **NOT warning** child no treat if don't eat,
 - b. **NOT begging** child to eat food, or
 - c. **NOT reminding** child to keep eating food.
3. At least 25% of the parents will report that their children eat **a. meals** and/or **b. snacks** on a regular schedule more often.

⁷ Ontai L, Sitnick SL, Sylva K, Leavens L, Davidson C, Townsend MS. University of California Cooperative Extension (UCCE) “My Child at Meal Time” pre/post survey for 3 to 5-year old children.

4. At least 25% of parents will report offering their child foods previously rejected more often.

The FFY 2022 results indicate that all seven SMART objectives were exceeded. When examining behavioral changes among this small sample of class participants, there were statistically significant gains ($p < .05$) from pre to post in the mean scores for nine of the ten child feeding practices targeted by the HHF curriculum. No change was observed from pre to post among parents warning their child “no treat, if you don’t eat”. There were also statistically significant increases ($p < .05$) from pre to post in four of the ten questions when examining the proportion of parents who reported the intended child feeding practices by answering:

- ‘Very Often’ or ‘Often’ for the **desired** feeding practices
 - Up by 25% points for child sits and eats meals with an adult,
 - Up by 25% points for parent prepares one food child will eat; and
- ‘Sometimes’ or ‘No/Rarely’ for **undesirable** feeding practices
 - Up by 31% points for parent reminds child to keep eating food,
 - Up by 28% points for parent begs child to eat food.

Taken together, these findings demonstrate the significant gains in recommended child feeding practices among the HHF class participants surveyed even given the limited number of surveys collected during FFY 2022.

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Evaluation Report Attachment #3:

Meeting Youth Where They Are: Conducting In-Person, Online and Hybrid Youth Participatory Action Research (YPAR) in CalFresh Healthy Living, University of California Programming

Project: Youth Engagement Initiative

Authored by: Brandon Louie, Claudia Carlos, Eli Figueroa, Jessica Gil-Bautista, Chris Gomez Wong, Elizabeth Lopez, Rigoberto Ponce, Daisy Valdez, and Nancy Erbstein, with Kelley Brian, Yu Meng, MaryAnn Mills, Marisa Neelon, and Kamaljeet Singh-Khaira

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Contra Costa County

UCCE staff members Eli Figueroa, Charles Go, and Marisa Neelon, and the YPAR team at Dozier-Libbey Medical High School.

Imperial County

UCCE staff members Chris Gomez Wong, Yu Meng, and Rigoberto Ponce, and the YPAR teams from Calexico High School's Eco-Garden Club, the Central Union High School District Imperial Valley Regional Occupational Program, and Southwest High School's Sports Medicine Career Technical Education Classes.

Madera County

UCCE staff members Jessica Gil-Bautista and Elizabeth Lopez, and the YPAR team from James Madison Elementary School.

Riverside County

UCCE staff members Claudia Carlos and Daisy Valdez, and the Villegas Middle School Career Technical Education YPAR team.

How to Use this Report

This report documents the work of four CalFresh Healthy Living, University of California (CFHL, UC) county programs that facilitated youth participatory action research (YPAR) projects as part of the Youth Engagement Initiative during Federal Fiscal Year (FFY) 2022. YPAR is a process that engages young people in using the tools of research to critically assess conditions that shape their lives, with the goal of supporting action to improve those conditions. Highlighted here are diverse examples of YPAR in action within the Supplemental Nutrition Assistance Program Education (SNAP-Ed). In California, the name for the federal SNAP-Ed program is CalFresh Healthy Living.

This documentation effort captures how youth-led policy, systems, and environmental (PSE) change interventions utilized multiple delivery modes to sustain and expand projects as communities struggled to bridge to a “new normal” during the ongoing COVID-19 pandemic. After a brief introduction, this report details the SOE/CRC team’s development of a new Youth Career Pathways Toolkit in FFY 2022. This toolkit provides activities, tips, and resources for CFHL, UCCE staff and extenders facilitating YPAR projects, with the aim of helping youth translate what they’re learning to building their own career pathways. This report also explores continued piloting of a scaffolded approach to YPAR training and facilitation that was developed in response to programmatic needs during the COVID-19 pandemic. It concludes with detailed profiles of each YPAR project facilitated during FFY 2022, examining lessons learned from multiple case studies.

Since no two YPAR projects are the same, the information presented here is intended as a reference rather than a step-by-step manual. These case studies and their promising practices offer examples of what is possible as youth and program facilitators craft youth-led PSE change efforts that fit the specific needs and circumstances of their unique communities while confronting ongoing challenges and uncertainty.

The Documentation Process

Information provided here was collected in several ways:

- monthly check-in calls and additional technical assistance conversations with individual counties;
- post-project interviews and site visits with UCCE staff;
- statewide youth engagement conference calls that occurred monthly and were open to all CFHL, UC counties engaged in this work;
- youth-produced final reports, videos, and presentations;
- archived items and program documents from counties; and
- extensive field notes.

The Youth Engagement Initiative

Launched in FFY 2016, CFHL, UC's Youth Engagement Initiative continues to explore innovative strategies to engage youth in nutrition and physical activity. Projects within this initiative seek to empower young people from vulnerable communities to lead efforts that improve the environments where they live, play, eat, shop, and learn.

The Youth Engagement Initiative embraces core youth development principles, as well as USDA Supplemental Nutrition Assistance Program—Education (SNAP-Ed) Guidance that employ PSE change activities—such as multi-level interventions and community and public health approaches—in addition to providing direct nutrition education (for a full definition of PSE, please see the Fiscal Year 2023 SNAP-Ed Plan Guidance, pp. 18-20).ⁱ CFHL, UC recognizes that youth who are impacted by PSE decisions should be involved in identifying, planning, implementing and evaluating the change interventions themselves. The goal of this initiative is to build the capacity of youth to contribute to PSE changes that help make the healthy choice the easy and preferred choice, while developing their leadership abilities, sense of self-efficacy, civic engagement, and college and career readiness. Throughout this process, UCCE staff serve as adult allies, a term used in the field and within this report to acknowledge their role as intergenerational collaborators committed to supporting and facilitating youth-centered efforts.

In FFY 2022, the CFHL, UC Youth Engagement Initiative continued to build upon its previous programmatic effortsⁱⁱ, including strategies developed to support UCCE county programs implementing or developing YPAR projects during the initial stages of the pandemic. Given the variability of local conditions and needs, resource development, technical assistance, and training were tailored to fit in-person, online, and hybrid program delivery modalities. This report documents the work of UCCE staff members engaged in the CFHL, UC YPAR Community of Practice during FFY 2022.

Youth Participatory Action Research (YPAR)

YPAR engages young people as research leaders, promoting process-oriented, reflexive research and action driven by youth's perspectives, strengths, and cultural wealth. YPAR supports youth to study and address social issues that impact them in ways that build their capacities as civic actors.ⁱⁱⁱ This approach helps achieve SNAP-Ed's nutrition education and obesity prevention goals by positioning young people to become champions for PSE changes that promote healthy nutrition and physical activity in their communities, while also learning about healthy nutrition and physical activity. It is recognized by SNAP-Ed as a practice-tested PSE strategy that "aims to empower youth and achieve policy, systems, and environmental change efforts related to health, nutrition, and physical activity" by having young people "identify their own issues, problems, and possible solutions."^{iv} YPAR projects support youth to "engage in leadership, critical thinking, problem solving, strategizing skills, and service learning to address their target issue related to nutrition and physical activity."^v

Despite the ongoing challenges of COVID-19 and multiple variant waves, YPAR projects were conducted successfully with both new and continuing youth cohorts this year. Some of the impacts of this programming can be seen in the following results from CFHL, UC's FFY 2022 YPAR Retrospective Survey, which detail statewide youth participant outcomes. Following their involvement in a YPAR project, youth reflected on how they would have answered questions before participating in YPAR and how they feel now after participating in YPAR. Youth participants in FFY 2022 noted substantial shifts in their desire and ability to make a difference in creating healthier schools and/or communities.

Figure 1. Reported change during program in wanting to make a difference in school/community health

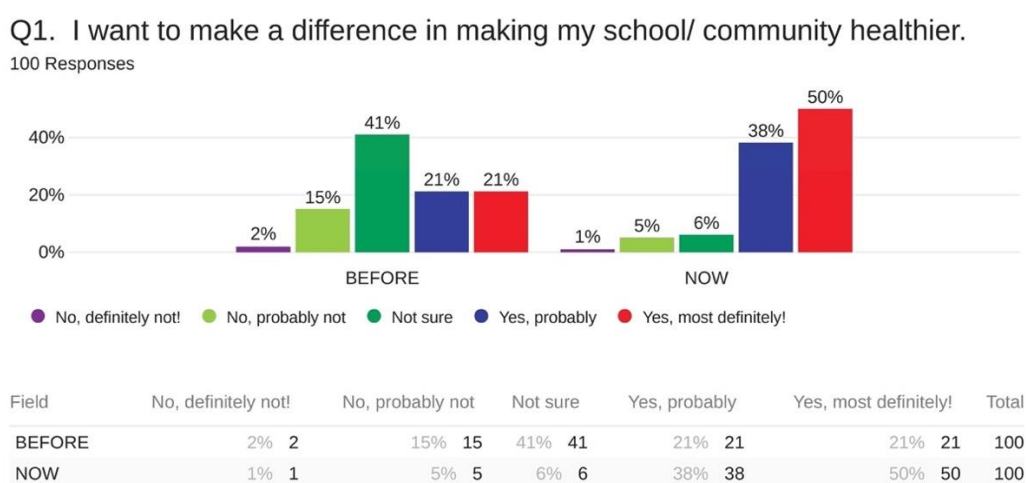


Figure 2. Reported change during program in data collection skills to increase school/community health

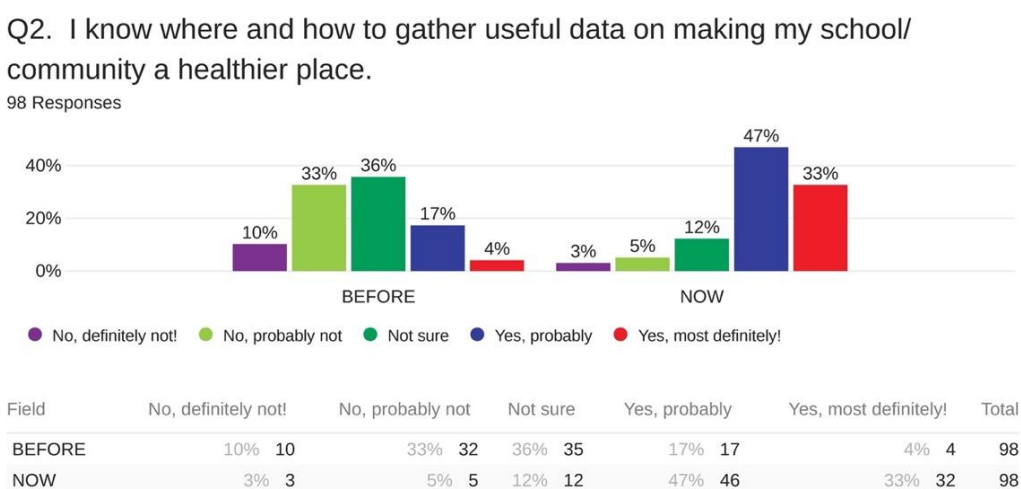


Figure 3. Reported change during program in ability to use research results to make a difference in school/community health

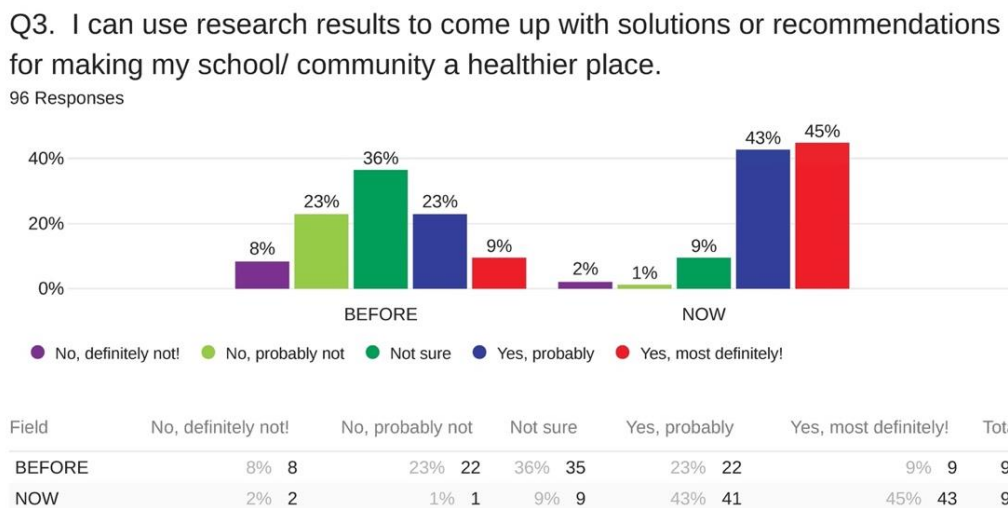
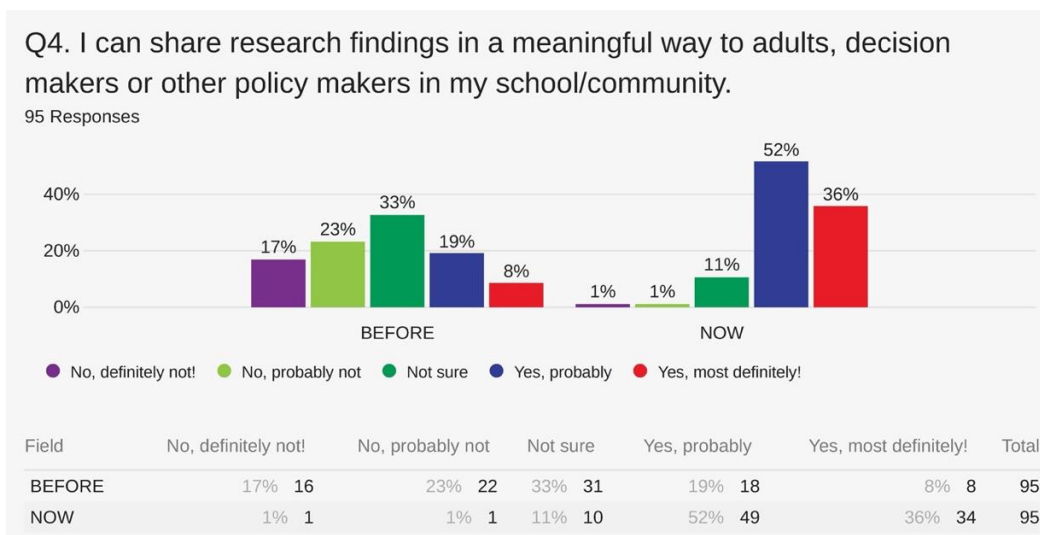


Figure 4. Reported change during program in ability to share research findings with decision-makers



Young people also report having new knowledge that informs how they think about and act upon health.

Figure 5. Reported change during program in understanding how surroundings affect health

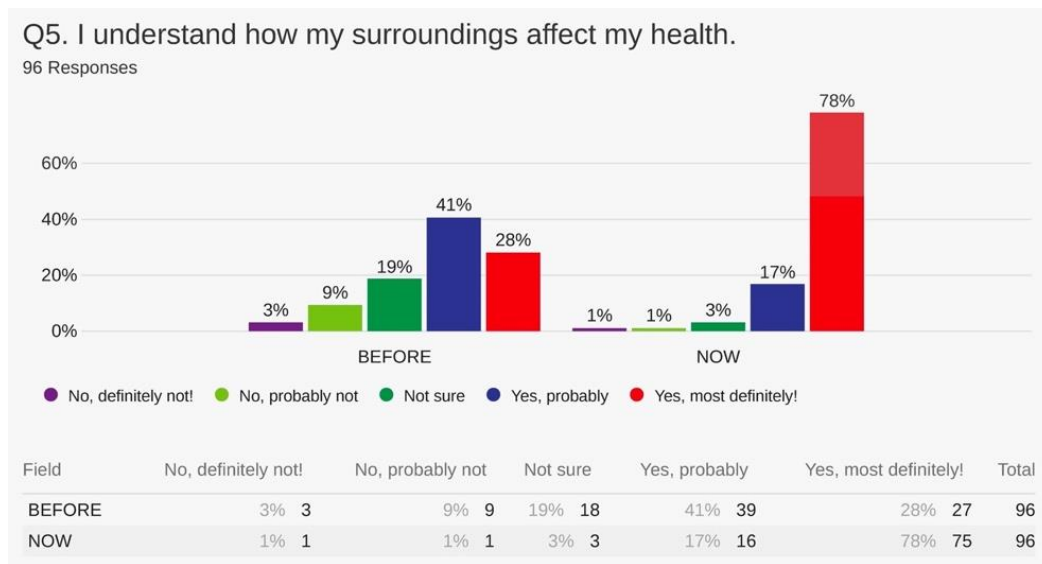


Figure 6. Reported change during program in feeling confident in knowing what is and is not healthy to eat

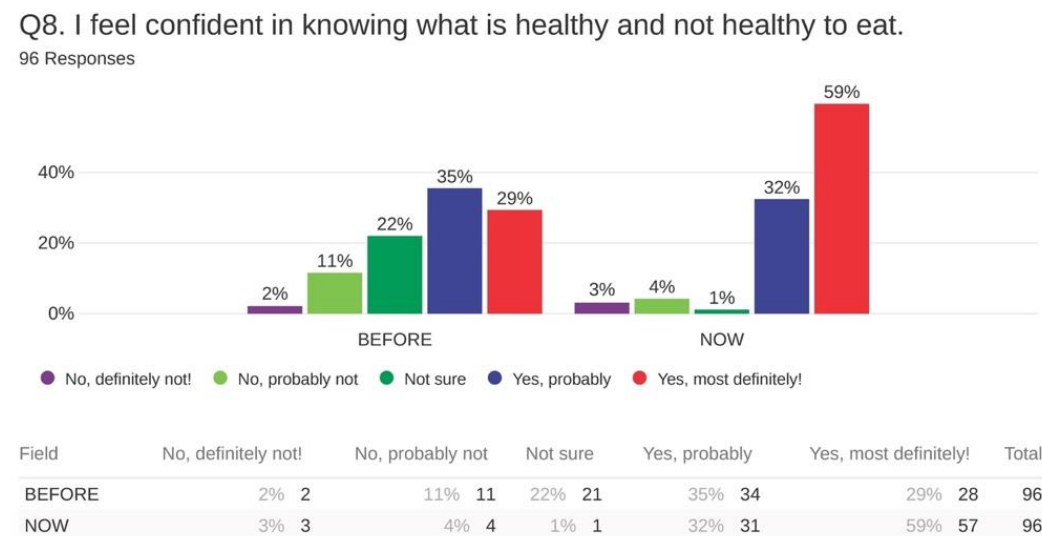
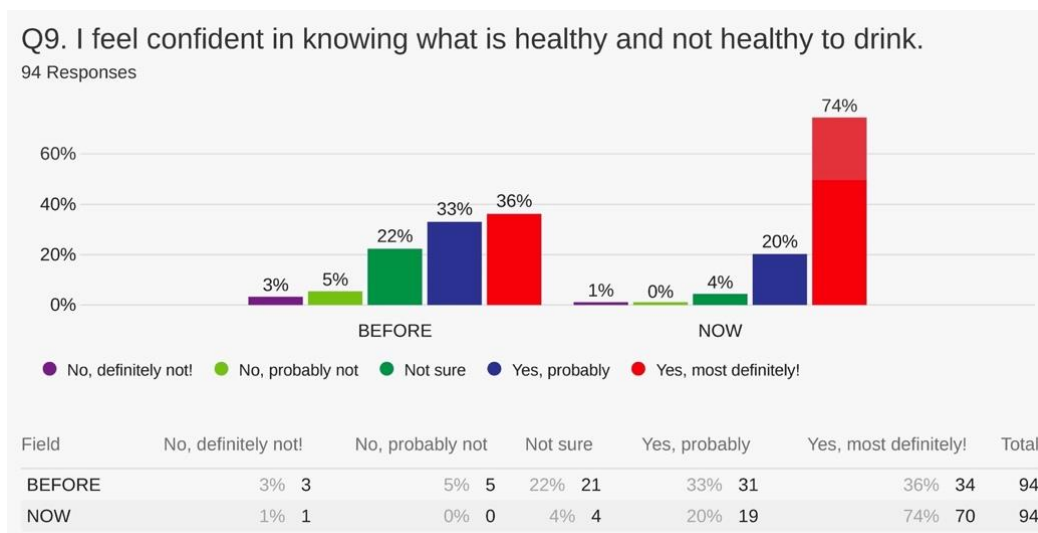
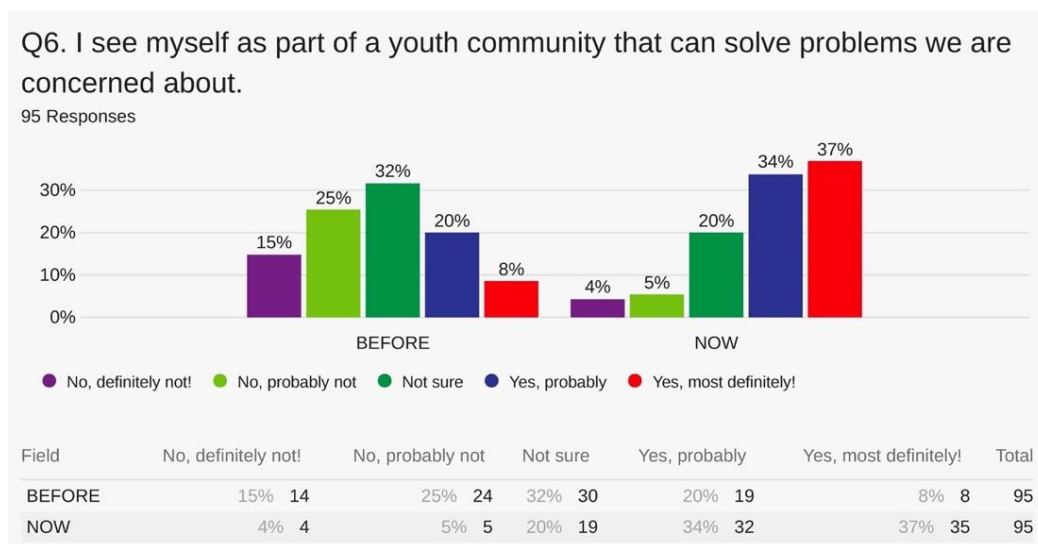


Figure 7. Reported change during program in feeling confident in knowing what is and is not healthy to drink



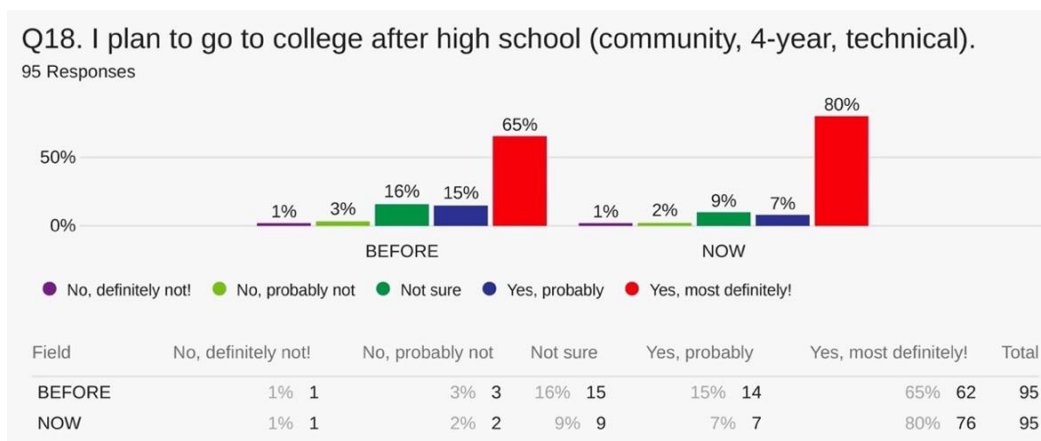
Perhaps most importantly, YPAR participants report an increased sense of efficacy both with respect to making healthy choices themselves, and with respect to acting on behalf of their communities.

Figure 8. Reported change during program in connectedness to youth community problem-solvers



Additionally, more youth participants reported planning to pursue some sort of postsecondary education after participating in YPAR compared to before their participation.

Figure 9. Reported change during program in planning to pursue postsecondary education



Development of a Youth Career Pathways Toolkit

CFHL, UC's Youth Engagement Initiative engages youth in YPAR to not only learn about healthy nutrition and physical activity but also to inform PSE changes that support healthy nutrition and physical activity. As can be seen in the above retrospective survey results, this programming also builds important skills, knowledge and interests that can facilitate young people's pursuit of postsecondary education and/or employment in general, and in particular with an emphasis on becoming change agents who help to build healthy communities. These programs therefore also offer an important opportunity to strengthen pathways into related work, training, and education.

To facilitate translation of learning into postgraduation pathways, SOE/CRC launched a new project within the CFHL, UC Youth Engagement Initiative in February 2022. This effort produced a Youth Career Pathways Toolkit to help YPAR participants recognize and articulate capacities they gain in ways that can support their pursuit of employment and/or postsecondary education. This effort included four components: 1) capturing relevant materials already generated by CFHL, UCCE staff and identifying existing resources and needs; 2) synthesizing existing resources and developing new materials to fill gaps; 3) piloting materials via an all-day, in-person youth symposium; and 4) revising and designing materials to create a toolkit.

The SOE/CRC team administered a questionnaire to UCCE staff members and conducted key informant interviews to identify existing resources and needs. Group reflection and input were also gathered through the CFHL, UC Youth Engagement Workgroup and a CFHL, UC Town Hall presentation facilitated in April 2022. Materials staff had already generated were assessed and synthesized and gaps were identified and filled through the creation of new resources aligned with key phases of YPAR activity.

The SOE/CRC team then worked with Imperial County UCCE staff and their partner sites where YPAR is facilitated through school-based career technical education (CTE) classes to pilot the new activities via an all-day, in-person symposium. This gathering took place at the UC Desert Research and Extension Center and involved twenty-three youth representatives from the YPAR teams in El Centro and Calexico, along with UCCE staff from Imperial and Riverside Counties and a partner teacher. Youth attendees shared their projects, toured the UCCE facility, and piloted the new activities that engaged them in reflecting on their skill development, learning about ways to highlight these capacities on job and college applications, and exploring related areas of work and study. The youth participants also served as evaluators of and contributors to these new activities through numerous evaluations interspersed throughout the gathering. The symposium was informative and impactful in developing these career pathway resources, providing key insights that shaped their further development.

The SOE/CRC team revised activities and associated materials based on feedback gathered during the youth symposium and compiled all of the activities, resources, and tips at the end of FFY 2022. The resulting Youth Career Pathways Toolkit is organized into three main parts: 1) Tips for Facilitators, 2) Activities, and 3) Additional Resources and References. The activities are arranged thematically to help facilitators guide young people to reflect on and practice articulating their YPAR experiences, explore career and learning options, and practice skills needed in applying for jobs, scholarships, and educational programs of their choice. The toolkit is available for use by CFHL, UCCE educators and extenders implementing YPAR projects in FFY 2023 and beyond; and its activities and resources will be incorporated into SOE/CRC's training and technical support moving forward.

Continued Piloting of Scaffolded Models for YPAR Training & Facilitation in FFY 2022

Documentation of CFHL, UC YPAR projects during FFY 2022 continued to focus on the piloting of a scaffolded approach to YPAR training and facilitation that was developed during the COVID-19 pandemic.

This program adaptation was born out of lessons learned in FFY 2020 about key supports for YPAR extenders, as well as the pandemic's novel challenges and impacts on the engagement landscape for K-12 partners and youth. These circumstances highlighted a need to create tiered pathways into facilitating YPAR projects for nutrition educators and extenders who are interested but are most comfortable with direct instruction methods. Recognizing that newcomers to YPAR and youth leadership in PSE change could benefit from more tightly-framed, asset-based, culturally responsive youth engagement options with variable timeframes and predetermined parameters, the SOE/CRC team developed two additional "on-ramps" to meet these conditions:

- a 12-session series for nutrition educators or extenders interested to implement more structured YPAR projects; and

- a 6-session series of project-based modules that are derived from approved YPAR curricula and introduce PSE changes to build upon SNAP-Ed direct instruction efforts.

These scaffolded pathway options adapt facilitation of the Stepping Stones framework and related tools. Both reflect trade-offs—decreased levels of youth leadership and action, but a more bounded process in which facilitators and youth participants can learn and experiment. These resources aim to support educators who are newcomers to YPAR implementation while simultaneously supporting youth reflection on a significant shared experience related to healthy food access and/or physical activity.

Two UCCE county programs supported continued piloting of these approaches and resources in FFY 2022: 1) Riverside County UCCE staff facilitated their second 12-session structured YPAR project with a 6th grade CTE class at Villegas Middle School, with this year's effort taking place fully in-person and focusing on their school community's experience with healthy food and gardening; and 2) Madera County UCCE staff facilitated a 6-session photovoice project with a 6th grade class at James Madison Elementary School focused on drinking water access and appeal. Full details about these efforts and their accomplishments are provided in their individual project profiles later in this report. Provided here are Riverside and Madera County UCCE staff members' reflections on this ongoing pilot effort.

- **Having distinct project options continues to be beneficial for developing YPAR partnerships.**
 - This feature is particularly useful for UCCE staff and adult and youth partners with relatively short timeframes and/or limited time (e.g., when developing a project in the second half of the school year, or in combination with a time-intensive direct education curriculum).
 - As an example, Madera County UCCE staff started their 6-session photovoice project towards the end of the school year but were still able to complete their activities within a shortened timeframe.
- **Confirming initial observations from FFY 2021, simplifying the process—and providing ready-made planning and facilitation resources—helped lower the bar to entry for newcomers while still exposing them to the YPAR approach, increasing their knowledge, experience, and confidence for future efforts.**
 - UCCE staff in FFY 2022 reiterated that initial exposure to the YPAR approach and the full Stepping Stones toolkit can feel confusing and overwhelming, particularly for someone with limited prior experience facilitating youth engagement. It can be especially challenging to figure out what makes sense for one's project and how to make key planning decisions without substantial support and guidance.
 - By contrast, these scaffolded models and their respective resources were seen as much easier to understand and apply for first-time YPAR implementers.

- UCCE staff noted the utility of sample meeting agendas, presentation slide templates, planning tools and other resources (e.g., video examples of other YPAR projects) to support planning and facilitation tasks as well as collaboration with partner teachers.
 - Additionally, the organization of these resources into a shared cloud storage space helped UCCE staff orient themselves to the scaffolded models and develop a deeper understanding of YPAR.
- Even with all of these resources and templates, though, it is still critically important to meet young people and partners where they are and adapt approaches to fit their needs and interests.
 - In this respect, technical support and coaching continue to be very helpful for facilitating scaffolded approaches, including engagement with supervisors, technical assistance providers like the SOE/CRC team, and peers with experience facilitating their own YPAR projects.
- **UCCE staff continue to recognize some benefits of pairing facilitation of a scaffolded approach with direct education curricula that expose youth to PSE changes and lay a foundation for further exploration in a YPAR effort.**
 - In Riverside County, UCCE staff combined their 12-session structured YPAR approach with TWIGS: Youth Gardening and Healthy Eating Curriculum and Up4It, which aligned well with their project's focus on healthy food and gardening.
 - In Madera County, UCCE staff combined their 6-session photovoice project with Up4It, which aligned well with their project's focus on water access and appeal.
 - While there are clear benefits to this type of complementary programming, UCCE staff in both counties noted that an intensive series of direct education sessions requires substantial time, which for many would make a shorter scaffolded approach a more feasible pairing option than a longer YPAR project.
- **As noted in FFY 2021, there is growing evidence that the exposure to YPAR provided by scaffolded approaches may serve as a gateway to pursuing more in-depth, youth-led PSE change interventions.**
 - As was the case with implementers of scaffolded models in FFY 2021, UCCE staff in both counties went beyond the guidelines and parameters that were initially established for the 6-session and 12-session series, adapting and expanding the framework and activities to fit the unique needs and interests of their communities.
 - Following this year's efforts, UCCE staff in both counties noted greater confidence in their ability to facilitate a YPAR project and expressed a strong interest in expanding opportunities to promote youth leadership and decision making in future PSE change interventions.
 - Having facilitated at least one project themselves, they report now knowing what to anticipate, what to plan for, how the pieces fit together, and how to adapt their approach, as well as where to find key resources and how to use them effectively.

Reflections on this scaffolded approach to YPAR training and facilitation continue to be promising. We anticipate that further program documentation in FFY 2023 will continue to demonstrate the efficacy of these “on-ramps” in supporting UCCE staff members’ uptake of youth engagement strategies and YPAR as an element of their nutrition education practice. Lessons learned from this year’s documentation work will continue to shape training and support for future YPAR projects as UCCE staff and partners bridge to a “new normal”.

Following are profiles of the CFHL, UC YPAR projects that took place during FFY 2022.

Contra Costa County: Dozier-Libbey Medical High School YPAR Project

Project Overview

UCCE Contra Costa County staff continued their YPAR project at Dozier-Libbey Medical High School. Marisa Neelon (Nutrition, Family, & Consumer Sciences Advisor) and Charles Go (UC 4-H Youth Development Advisor) supported the project as advisors, and Eli Figueroa (UCCE Community Education Specialist) served as the primary adult ally and facilitator who worked with the youth team. The facilitation team continued to meet with the youth remotely throughout this school year with the support of Rosalinda Ruiz, UCCE Community Education Supervisor in the Stanislaus/Merced County Cluster, who reprised her FFY 2021 role as a co-facilitator and second adult ally.

Setting

- Dozier-Libbey Medical High School is located in Antioch, a community with a population of roughly 115,000 people located in Eastern Contra Costa County. Dozier-Libbey is a pathway school designed to prepare students for postsecondary study and careers in health-related fields.

Project Details & Partnerships

- This year's YPAR project was a continuation of the project that was initiated at the school the previous year and involved the same team of youth leaders.
- The YPAR project continued to be funded by CalFresh Healthy Living, UC in partnership with UC ANR's 4-H Youth Development Program in Contra Costa County, who also provided supplemental funding.
- Although classes at the school were conducted in-person this year, the YPAR team met remotely to align with everyone's schedules and COVID guidelines.
 - The team found it very useful to continue using online tools and platforms to organize their collective efforts, schedule meetings, facilitate discussions, and capture team notes.
 - While meeting online provided many benefits, it did make it more challenging to solidify team cohesion and identity.
 - They also had to prep the team very intentionally for times when they transitioned out of insular online meetings and worked together on activities in the physical world, such as data collection in collaboration with student leadership at their school.

Youth Recruitment

- UCCE staff worked with the same five youth leaders at Dozier-Libbey Medical High School who participated in the YPAR project in FFY 2021.

- All youth participants were seniors, so they were mindful of the need to plan for the future and recruit a new cohort of team members.

Issue & Research Focus

- The team decided to conduct a needs assessment to identify the physical activity and/or nutrition issues that were most important to peers at their school.
 - They intended to complete the needs assessment during the first half of the school year and conduct further research in the spring based on their results; however, due to a number of challenges related to communication and coordination with campus administrators they were unable to facilitate a second round of data collection after the initial survey.

Research Method(s), Data Collection & Analysis

- Youth designed a needs assessment survey to identify the most important nutrition and/or physical activity issues at their school.
 - They wanted to test their own hypotheses, while also being open to any other issue areas that might come up.
 - They also wanted to identify peer ideas about possible solutions.
 - The plan to conduct a survey earlier in the school year was also a strategic tactic meant to generate more buy-in from peers and decision makers by getting them involved early and at multiple points in the project.
 - The team hoped their classmates would be more invested in and supportive of the YPAR team's data collection and action efforts later in the year.
 - The team saw this as a potential recruitment tool for next year's cohort, too.
- The youth sent their survey to allied teachers and administrators at the school for their review and feedback; this process took quite a while and delayed their data collection until well after the winter break.
 - They wanted to ensure survey results remained anonymous while also being able to enter participants in a raffle, which was complicated by the online survey platform that was connected to the school's systems.
 - In the end, they used paper raffle tickets to incentivize participation and eliminate any concerns about collecting personally identifiable information, although this approach required significantly more work by UCCE staff.
- To administer the survey, the YPAR team focused on the advisory period before lunch, a time generally used for school announcements.
 - They took advantage of student leadership's access to the entire student body and partnered to present the group's work and the survey.
 - This approach helped them introduce their project to a wider audience across campus.
 - The YPAR team received 217 responses to their needs assessment survey, roughly 30% of the student body.

- By analyzing their survey data, they found that the issues most important to the student body were: (a) the quality of food being served at their cafeteria, and (b) students' level of knowledge regarding nutrition and making healthy food choices.
 - 47% of respondents identified "school food served during breakfast and lunch" as the most important issue at their school.
 - In particular, respondents were concerned about the nutritional quality of school meals and food waste in their cafeteria.
 - 31% of respondents felt "[DLMHS] students don't know enough about nutrition to make healthy food choices".

Recommendations & Final Products

- The YPAR team was interested in using a mixed methods research approach this year, including the needs assessment survey and then complementary data collection based on initial results.
 - Youth wanted to do a short photovoice project in the spring to further explore the issue(s) identified in their survey results and capture strengths and areas for improvement related to school breakfast and lunch food.
 - They intended to share the resulting images and narratives, along with their survey results, through a culminating in-person photo gallery event for school administrators and students.
- Unfortunately, it was very challenging to coordinate the photovoice effort with school administration and get permission to take photographs at the school.
 - The administration was concerned about highlighting negative issues with nutrition services through this work.
 - The YPAR team attempted to meet with the principal to discuss and address any concerns, but they did not receive a response in time to move forward with the photovoice activity this year. Staff turnover and other capacity issues related to the pandemic made coordination with school decision-makers particularly challenging this year.
- In the end, the youth decided to abandon the photovoice effort and move forward with a final presentation based on the survey.
 - They made a video highlighting their project and their recommendations and shared it with the school's administration to get their feedback.
 - The video included a number of embedded questions meant to solicit feedback and reactions from viewers.
 - They also planned to use the video presentation to support recruitment and launch into next year's YPAR group.
- The group's key recommendations included improving communication and coordination with campus administrators to support further data collection next year, along with greater collaboration with food services staff to further explore and address concerns related to the school meals program.

Action & Outcomes

- At the end of the school year, the team focused on reporting back their initial survey findings to the student body and school leadership, along with setting up further recruitment for next year's YPAR cohort.
 - In their final presentation, they identified possible avenues for further research based on this year's findings, focusing on the school meals program and the photovoice effort they were not able to facilitate.
 - The principal responded very quickly to the team's recorded presentation and was very supportive of their work and findings.
- The team also reported their findings and helped spread the word about their project by creating posters and displaying them around their school.
 - They made a poster sharing needs assessment survey results with a QR code so fellow classmates could view a section of their final presentation.
 - They also made a recruitment poster, which helped them identify interested youth for next year's YPAR effort.
- The team held a year-end celebration to mark their accomplishments.
 - They did not have many opportunities to meet in-person this year, so it was nice to have this final reflection and wrap-up.
 - Although youth had to deal with multiple barriers this year, they learned a lot about not only research but how to strategically engage decision makers and navigate bureaucratic systems.

Looking Ahead to FFY 2023

- UCCE staff plan to continue the YPAR project at Dozier-Libby Medical High School again next year.
 - The school will have a new principal.
 - Because all youth graduated, they will build upon the results and recruitment materials already created to recruit a new YPAR team.

Imperial County: Calexico High School's Eco-Garden Club YPAR Project

Project Overview

Imperial County UCCE staff continued their work on Calexico High School's Eco-Garden Club YPAR project, with Chris Gomez Wong (UCCE Community Education Supervisor) serving as the main adult ally and facilitator. He was supported by Yu Meng (Youth, Family, and Community Advisor). This year's YPAR effort was facilitated both online and in-person.

Setting

- Calexico High School is located in the city of the same name on the United States-Mexico border, with a population of approximately 39,000 people. Many students live in Mexicali, in Baja California, and travel across the border daily to attend school.

Project Details & Partnerships

- This is the fifth year that Imperial County UCCE staff conducted a YPAR project at Calexico High School with the Eco-Garden afterschool club in partnership with Chef Nuñez's Culinary Arts program.
- In addition to their continued efforts to expand their school garden and establish a farm-to-school program, Eco-Garden Club members also supported joint data collection efforts with the Central Union High School District YPAR teams in El Centro.
- It was difficult to coordinate YPAR team meetings this year even though classes took place in-person, so UCCE staff opted for a hybrid model with some meetings facilitated in-person and some online.
 - School site partners and youth continued to struggle with a number of challenges and limited capacity due to the COVID-19 pandemic, which added to their scheduling difficulties.
 - While it was helpful to have an online meeting option, UCCE staff felt their in-person meetings were more effective.

Youth Recruitment

- This year's team was composed of seven youth participants, including four returning students from last year.
 - Some of these youth also participated in the afterschool YPAR team that was formed towards the end of the school year and brought together representatives from all of the different YPAR groups in El Centro and Calexico.

Issue & Research Focus

- The main focus for this year's team was a continuation of the action campaign from previous YPAR efforts centered on their school garden.
 - Their garden was uprooted and relocated in FFY 2020, so the team's main objective was to reestablish it in its original space by Chef Nuñez's new culinary arts classroom.
 - They also continued to advocate for key recommendations generated by their YPAR predecessors, including enhancing their school garden with a greenhouse.

Research Method(s), Data Collection & Analysis

- While this year's Eco-Garden Club YPAR team was mainly focused on continuing the action campaign from previous YPAR efforts, it also supported the data collection efforts of fellow CFHL, UCCE YPAR teams in El Centro's Central Union High School District.
 - For further details, please see the profiles for the YPAR projects conducted with Central Union High School District's CTE classes and Southwest High School's Sports Medicine CTE classes.

Action & Outcomes

- The team successfully championed their case and received permission from the principal to return their garden back to its original site on campus.
 - They salvaged what materials they could from the temporary garden space and reestablished raised beds in the former location.
- Youth also secured permission and funding to build a greenhouse and more raised beds in their garden with help from the Future Farmers of America program at their school.
 - The team relied on recommendations and garden designs generated by a previous Eco-Garden Club YPAR team to accomplish this significant PSE change.
 - The greenhouse will be located in the current site of their raised beds, so next year's team will need to move them once again to another location.
- One of the Eco-Garden Club YPAR team members also presented their group's ongoing efforts at their Farm-to-School Conference at the beginning of the summer.
 - As a result of this presentation, staff from Mains Elementary decided to initiate their own garden project and Heber Elementary School District was inspired to apply for their own California Department of Food and Agriculture Farm to School grant with the hope of building raised beds like those at Calexico High School.

Looking Ahead to FFY 2023

- Some members for next year's Eco-Garden Club and YPAR team have already been recruited.
 - Recruitment usually occurs at the beginning of the school year, so this is a first for them to have some of this completed before the summer break.
 - Graduating team members were worried that the school garden would be neglected during the summer months and wanted to ensure there was a team ready to take over when they left.
 - Four rising seniors are taking over the group and will work to recruit additional members in the fall.
 - Students took some plants home to care for them over the summer.
- The team plans to move their garden's raised beds at the beginning of the next school year to make space for the new greenhouse.
 - The greenhouse construction process may be an opportunity for further youth leadership and support to keep the project moving forward.

Imperial County: Central Union High School District CTE YPAR Project

Project Overview

Imperial County UCCE staff continued their partnership with Ms. Cortez, a CTE teacher working with five classes across three different high schools in El Centro's Central Union High School District (CUHSD). Chris Gomez Wong (UCCE Community Education Supervisor) and Rigoberto Ponce (UCCE Community Education Specialist) served as the main adult allies and facilitators for this in-person YPAR effort. They were supported by Yu Meng (Youth, Family, and Community Advisor).

Setting

- This YPAR project engaged students across three different CUHSD high schools situated throughout the city of El Centro. El Centro is located roughly nine miles north of the United States-Mexico border and is the main urban center in the Imperial Valley. It has a population of approximately 44,000 people.

Project Details & Partnerships

- UCCE staff continued their partnership with Ms. Cortez and her five CTE classes and were able to facilitate this year's YPAR effort in-person with a new cohort of students.
- Although each class was encouraged to pursue its own distinct issue, the five classes all decided to focus on water access and appeal at their respective campuses.
 - This shared focus allowed them to collaborate on research design and data collection.
- To complement this work, UCCE staff also created an afterschool YPAR group in the spring, recruiting representatives from each of their different YPAR teams in Imperial County.
 - This group met regularly online at the end of the school year to help coordinate research efforts, synthesize the results generated by their different classes, and develop a shared presentation.
 - UCCE staff were able to compensate youth who participated in this afterschool group.

Youth Recruitment

- As in the previous year, the YPAR team was composed of all of the students in Ms. Cortez's five CTE classes across the three high school campuses.
 - This year's project had 155 youth participants in total, although some students moved in and out of her classes after the first semester.

- As a continuation high school, the Desert Oasis student population is also somewhat fluid throughout the school year.
- The separate afterschool YPAR team was recruited in March.
 - All the members of this group were current YPAR participants from their El Centro and Calexico teams seeking an additional leadership and engagement opportunity with a new cohort of peers.
 - A total of 15 youth participated in this group.

Issue & Research Focus

- As young people returned to school campuses, a common challenge they faced was water access, since many water fountains remained locked and inaccessible due to pandemic-related policies and practices.
 - Limited water access prompted the YPAR team at Desert Oasis High School to focus on this issue for their project.
 - Similar conditions at the other high schools in the district inspired the remainder of Ms. Cortez's CTE classes to follow Desert Oasis's lead.
- Collectively, youth participants from these different classes wanted to examine water access at their respective schools and gain a greater understanding of this issue across their region.
 - Their shared goal was to improve water access and appeal and promote greater water consumption.

Research Method(s), Data Collection & Analysis

- UCCE staff helped the YPAR teams generate a shared survey exploring water access and appeal that could be administered across all three of their high schools and shared with Calexico High School's Eco-Garden Club YPAR team.
 - Youth from Desert Oasis High School started with a set of survey questions from Project 4-H2O in Contra Costa County and adapted it to fit their needs.
 - Then the other classes worked off the same survey instrument.
- By utilizing a common data collection tool, the teams were able to collect data and aggregate findings from four different high schools in the region.
 - They received over 1,000 responses from high school students in El Centro and Calexico, with the afterschool YPAR team leading the data analysis effort.
- Their findings identified a number of shared student concerns related to water accessibility, quality and appeal.
 - Only 22% of respondents drank water from campus water fountains and water bottle refilling stations, while 67% of respondents relied solely on water brought from home to stay hydrated during the school day.
 - 10% of respondents said they did not drink any water during school hours.

- Among students who did not drink water from campus water fountains and water bottle refilling stations, their leading reasons were that the water had an unpleasant taste and felt unsafe.
- A majority of respondents noted having to purchase bottled water at their schools, although this practice was identified as cost prohibitive by two thirds of respondents.
- 98% of respondents wanted to see “free fresh water” provided as an option during lunch.

Recommendations & Final Products

- Youth from the afterschool YPAR team developed a presentation highlighting the combined work and findings of this year’s YPAR teams.
 - Recommendations identified by the youth included: (a) install water stations in Desert Oasis High School classrooms, (b) regularly change the filters for preexisting water bottle filling stations and (c) regularly test the water quality at all campuses.

Action & Outcomes

- While the afterschool YPAR team aggregated data from across the different campuses and developed a comprehensive presentation for all of UCCE Imperial County’s YPAR efforts in FFY 2022, presenting this work to key decision makers and supporting identified PSE changes will be pursued in the next school year.
- Youth from the afterschool YPAR team—along with some of the other YPAR members—served as evaluators of and contributors to the new CFHL, UC Youth Career Pathways Toolkit developed by the UC Davis Center for Regional Change and School of Education by helping to pilot and assess new activities and resources via a one-day, in-person youth symposium in El Centro.
 - Twenty-three youth participated in the symposium with representation from all of the YPAR teams in El Centro and Calexico.
 - The gathering also included UCCE staff from Imperial and Riverside Counties, as well as Ms. Cortez from the Central Union High School District.
 - Feedback from the youth participants was used to inform the toolkit’s content, which is designed to help youth recognize, articulate, and make use of skills developed through their YPAR projects in ways that support post-high-school work and/or education planning.
 - The symposium also enabled an in-person celebration with the youth at the end of the school year.

Looking Ahead to FFY 2023

- In the coming year, UCCE staff plan to continue working with Ms. Cortez and the new student cohorts in her five CTE classes.

- They hope to recruit and launch the afterschool YPAR team and bring together a collective group across the region earlier in the school year.
- Youth have conducted a number of YPAR projects in the region and developed many key findings and recommendations at this point, so next year's teams may consider how to add to this body of knowledge (e.g., by administering the water survey at elementary schools) or how to use existing data about water access, food waste and community gardening to launch an action campaign.

Imperial County: Southwest High School Sports Medicine CTE YPAR Project

Project Overview

For the second year in a row, Imperial County UCCE staff facilitated a YPAR project in partnership with Ms. Solorzano at Southwest High School. This year's effort took place in-person and involved students from two different sports medicine CTE classes. Rigoberto Ponce (UCCE Community Education Specialist) was the project's main adult ally and facilitator. He was supported by Yu Meng (Youth, Family, and Community Advisor).

Setting

- Southwest High School is located in the city of El Centro near the United States-Mexico border. El Centro is the main urban center in the Imperial Valley and has a population of approximately 44,000 people.

Project Details & Partnerships

- This project was a partnership with Ms. Solorzano and her sports medicine CTE classes at Southwest High School.
- The classes chose to focus on water access and appeal at their school and collaborated with their peers in the other local YPAR teams.
- Although classes returned to full in-person instruction this year, youth and adult allies continued to deal with numerous pandemic-related restrictions and challenges that affected their meeting schedule and engagement.
 - Transition back to in-person engagement required youth and adults to relearn some social norms and cues; using group agreements as much as possible supported this collective process.
 - The pandemic omicron wave made it difficult to establish a consistent meeting schedule during the second half of the school year.

Youth Recruitment

- The YPAR team was composed of all of the students in Ms. Solorzano's two sports medicine CTE classes at Southwest High School.
 - There were seventeen students in one of her classes and thirty-five students in the other.
 - Some of these youth also participated in the afterschool YPAR team that was formed towards the end of the school year and brought together representatives from all of the different YPAR groups in El Centro and Calexico.

- Additional information about this team can be found above in the project profile for the Central Union High School District CTE YPAR Project.

Issue & Research Focus

- Students in Ms. Solorzano's CTE classes decided to focus on water access and appeal as well this year, since they encountered similar challenges as their Central Union High School District colleagues in Ms. Cortez's CTE classes.
 - Youth could not use the school's water fountains due to the pandemic and the water bottle refilling station could not serve all students.
 - Without a water bottle with them from home, students might not consume any water during the school day.
 - Some students did not drink water until returning home from school at the end of the day.
 - They were concerned about water quality at their school, too.

Research Method(s), Data Collection & Analysis

- Youth from Ms. Solorzano's classes combined forces with youth from Ms. Cortez's classes to develop and administer a shared survey focused on water access and appeal.
 - The survey was also administered at Calexico High School by youth with the Eco-Garden Club YPAR team.
- Youth from Ms. Solorzano's CTE classes helped adapt and administer the water access survey that was initially developed by YPAR participants at Desert Oasis High School.
 - Collectively, the UCCE Imperial County YPAR teams received over 1,000 responses from high school students in El Centro and Calexico, with the afterschool YPAR team leading the data analysis effort.
- Their findings identified several shared student concerns related to water accessibility, quality and appeal.
 - Please see the above profile for the Central Union High School District CTE YPAR project for further details about the findings of this collective data collection effort.

Recommendations & Final Products

- Youth from the afterschool YPAR team developed a presentation highlighting the combined work and findings of this year's YPAR teams.
 - Recommendations identified included: (a) regularly change the filters for preexisting water bottle filling stations at Southwest High School, and (b) regularly test the campus's water quality.

Action & Outcomes

- While the afterschool YPAR team aggregated data from across the different campuses and developed a comprehensive presentation for all of UCCE Imperial County's YPAR efforts in FFY 2022, presenting it to key decision makers and supporting identified PSE changes will be pursued in the upcoming school year.

Looking Ahead to FFY 2023

- In the coming year, UCCE staff plan to continue working with Ms. Solorzano and the new student cohorts in her sports medicine CTE classes.
 - They hope to recruit and launch the afterschool YPAR team and bring together a collective group across the region earlier in the school year.
- Youth have conducted a number of YPAR projects in the region and developed many key findings and recommendations at this point, so next year's teams may consider how to add to this body of knowledge (e.g., by administering the water survey at elementary schools) or how to use existing data about water access, food waste and community gardening to launch an action campaign.

Madera County: James Madison Elementary School Photovoice Project

Project Overview

Madera County UCCE staff facilitated a 6-session photovoice project at James Madison Elementary School focused on water access and appeal. This partnership with Ms. Schallberger's 6th grade class was facilitated in-person during the latter portion of the school year. The main adult allies and facilitators for this project were Jessica Gil-Bautista (UCCE Nutrition Program Educator) and Elizabeth Lopez (UCCE Nutrition Program Supervisor).

Setting

- James Madison Elementary School is located in the city of Madera in California's Central Valley, which has a population of approximately 66,000.

Project Details & Partnerships

- This project was inspired in FFY 2021, when Ms. Schallberger and some of her student council leaders attended an online event hosted by CFHL, UC—"The Future of Food: Exploring Food System Career Pathways for Young People"—and learned about YPAR projects taking place across California.
 - After the event, they reflected on what they had learned and identified potential topics relevant to their own school.
 - Ms. Schallberger and her students were particularly inspired by Project 4-H2O's water access and appeal efforts in Contra Costa County and wanted to replace their school's old water fountains.
 - UCCE staff suggested ways that youth could play a key role in this work and help research options for acquiring new water stations.
 - As a part of this process, the Madera UCCE team also met with UCCE staff from Contra Costa County to learn more about their effort and apply lessons learned to their own project.
 - With student support, Ms. Schallberger identified a potential funding source—the Drinking Water for Schools Grant Program from Self-Help Enterprises—and submitted a successful grant proposal for approximately \$100,000 to purchase new water bottle filling stations for their school and provide each student with a reusable water bottle.
- In FFY 2022, after securing the grant funding but before the water stations were delivered or installed, UCCE staff partnered with Ms. Schallberger to provide Up4It lessons to her 6th grade students, which taught them about building healthy habits related to water consumption, nutrition, physical activity, and sleep.
 - UCCE staff and the teacher looked to combine their direct education partnership with a scaffolded YPAR model during the second half of the school year.

- Up4It lessons already highlighted drinking water and creating a campaign focused on water consumption, so there was clear alignment with the content they were covering together.
 - UCCE staff connected with youth and built rapport and momentum before launching a more youth-driven initiative.
- UCCE staff decided to facilitate a 6-session photovoice project to align their effort with available time and capacity at the end of the school year.

Youth Recruitment

- UCCE staff recruited the youth team directly from Ms. Schallberger's 6th grade class at the elementary school.
- There were 25 youth participants in the class and none of them had participated in a YPAR or photovoice project previously.

Issue & Research Focus

- This 6-session project complemented the successful water bottle filling station grant and was focused on water access and appeal at the school.
- This project aimed to document students' current experiences and challenges with water access and consumption on campus as well as their hopes for the future once new water bottle filling stations were installed.
 - This would provide context and support for installing new water stations.
 - It would also provide a student vision of next steps once new water stations are installed.
 - This could, for example, help fuel a future education campaign promoting water consumption and maintaining the new stations.

Research Method(s), Data Collection & Analysis

- Data collection involved taking photographs to capture current conditions related to water access and water consumption across their campus.
 - Students photographed old water fountains at their school before they were removed and replaced with new water bottle filling stations.
 - After taking numerous photos, youth prioritized and selected particularly powerful and evocative images and crafted accompanying narratives.
- Youth really enjoyed taking photos and captured various positive and negative aspects of current conditions and behaviors related to school water fountains.
 - Results from their data collection highlighted the importance of cleanliness for student water consumption, as current water fountains were perceived to be dirty, old, and uncared for, and students expressed concern about the quality of the water being dispensed.
 - Youth also felt they and their peers did not drink enough water during the day because they lacked access to clean, appealing water fountains.

Recommendations & Final Products

- Based on the results of their photovoice project, youth highlighted the need to educate their peers about the importance of drinking water.
 - They also emphasized the importance of taking care of the new water bottle refilling stations once they were installed.
 - Youth envisioned these points forming the basis of an educational awareness campaign at the school the following school year.
- Together with UCCE staff and Ms. Schallberger, youth created a slide presentation as their final product.
 - The presentation provided an overview of their project and showcased their photos and narratives.
 - They hope this will inspire next year's youth cohort to take on this project and continue their work.

Action & Outcomes

- Ms. Schallberger and three of her students presented their project and findings at a District Wellness Committee meeting at the end of the school year and promoted the installation of water bottle filling stations at additional school sites.
 - Youth displayed a great deal of confidence and ownership over the project and were able to voice their opinions and share information about low water consumption at their school.
 - A district trustee was in attendance, along with school principals, PE teachers, representatives from the Madera County Department of Public Health, and other local leaders, and they were all very impressed by the team's presentation.
 - The principal of the middle school the three students will attend in the fall hopes they will get involved on that campus as well.
 - Afterward, there was interest in having more regular student participation in all of the School Site Wellness Committees.
 - This would represent a significant shift in the district's culture and a big potential systems change, so UCCE staff hope to continue advocating for this moving forward.
- The new water bottle filling stations were delivered to the school site at the end of the school year and will be installed during the coming school year.
- Ms. Schallberger also shared the team's photos and slide presentation with Self-Help Enterprises, the grant funder who supported the purchase of the new water bottle filling stations.

Looking Ahead to FFY 2023

- Unfortunately, this was Ms. Schallberger's last year at James Madison Elementary and UCCE staff are not able to work with the new school site where she will be located.

- However, she had such a positive experience with this year's project that she already started a similar initiative at her new school for the 2022-2023 school year.
 - Over the summer, she wrote another grant proposal and was awarded funds to purchase water bottle filling stations there, too.
- UCCE staff hope to continue this project with a new cohort of young people at James Madison Elementary next year to build upon the photovoice project and develop an educational campaign focused on the new water bottle filling stations.
 - They may have identified a new teacher partner to support the next project cycle.
 - Opportunities for a new project include developing an educational and awareness campaign about water consumption, monitoring use of the new water bottle filling stations, and researching any barriers to water station usage and maintenance.

Riverside County: Villegas Middle School YPAR Project

Project Overview

Riverside County UCCE staff built upon their YPAR experience at Villegas Middle School from FFY 2021 and conducted a 12-session, structured YPAR project with a new teacher there in FFY 2022. Unlike the previous year's effort, this partnership with Ms. Weiss's 6th grade CTE class was facilitated completely in-person. The main adult allies and facilitators for this project were Daisy Valdez (UCCE Community Education Specialist) and Claudia Carlos (UCCE Community Education Supervisor).

Setting

- Villegas Middle School is located in the city of Riverside, an urban center east of Los Angeles in Southern California which has a population of approximately 315,000.

Project Details & Partnerships

- The previous YPAR partner, Mrs. Leach, left Villegas Middle School, so this year Riverside County UCCE staff partnered with Ms. Weiss's 6th grade CTE elective class focused on gardening and nutrition.
 - Similar to last year's structure, the class ran on a 12-week trimester cycle with three different cohorts of students rotating through the class during the school year.
- UCCE staff started the year teaching TWIGS and Up4It curricula with Ms. Weiss, which focused on gardening, nutrition, water consumption, physical activity, and sleep; they then facilitated a 12-session, structured YPAR project with the students in her third trimester.
 - Although it was Ms. Weiss's first year as a fulltime teacher, she was excited about this project.
 - She worked with UCCE staff to adapt the project to address gaps in her students' social and cognitive abilities due to the pandemic and distance learning
- UCCE staff were able to facilitate the YPAR project in-person this year, which was a significant change from last year's fully-online effort.
 - It felt good to be in the classroom with the students and it was easier to assess the energy of the room and support youth to comprehend key concepts during sessions.
 - Ms. Weiss was present during all of the YPAR meetings, providing examples for her students and elaborating on discussion topics.

Youth Recruitment

- UCCE staff recruited the youth team directly from the third cohort of Mrs. Weiss's 6th grade CTE class.
 - Working with the third cohort of students towards the end of the year gave both the teacher and the students time beforehand to readjust to in-person instruction and rebuild relationships with one another after such a long period of distance learning.
- There were 20 youth participants in the class and none of them had participated in a YPAR project previously.

Issue & Research Focus

- For their project's focus, Ms. Weiss's students chose to explore and capture their school community's experience with healthy food and gardening.
 - They started by examining food access in their community and exploring who the decision makers were on their campus.
 - Then they followed the activities for the 12-session YPAR model focused on investigating individual and family histories with gardening and cooking healthy food.

Research Method(s), Data Collection & Analysis

- For their research, the youth team chose to conduct interviews with campus staff members, teachers, parents/guardians, and fellow students.
 - The youth worked with Ms. Weiss and UCCE staff to develop a set of questions exploring people's experiences with healthy food, cooking, and gardening.
 - They also assessed people's level of awareness related to food access and supportive services to follow-up on last year's YPAR project and its educational efforts.
 - This was an important opportunity for youth to practice interview skills, interact with adults, and engage in-person.
 - Students were especially nervous about speaking with teachers and staff members and struggled when it came to talking to people in-person after so much distance learning.
 - Ms. Weiss sent the interview questions ahead of time to help prepare staff members and teachers for the conversations with her students and to put youth more at ease.
- Data from the interviews were captured in Google Forms so they could be anonymized, aggregated, and then analyzed by the youth researchers.

Recommendations & Final Products

- After analyzing their data, the youth team identified a need for more diverse school lunch options that could reflect the rich diversity of cultures in their school community and the variety of healthy foods that people enjoy eating.
- They also identified shared interests in cooking healthy food and gardening and promoted cooking and gardening lessons to support growing, cooking, and eating healthy food.

Action & Outcomes

- Youth presented their research and findings to representatives from the CFHL, UC State Office and the UC Davis Center for Regional Change and shared their final presentation and resources with their families and the school community.
- Ms. Weiss plans to continue facilitating Up4It and TWIGS lessons with her new cohorts of students in the coming year and may expand upon this YPAR initiative.

Looking Ahead to FFY 2023

- Daisy joined the new CFHL, UCCE office in Los Angeles County after the conclusion of the school year, so nutrition educator Jackie Barahona will take her place at the Moreno Valley UCCE Riverside office for FFY 2023.
- Riverside UCCE staff intend to build upon their experience with the 12-session model and conduct a year-long YPAR project with high school students in the coming year.
 - They'd like to facilitate a more long-term, sustainable YPAR partnership that can generate PSE changes.

Endnotes

ⁱ United States Department of Agriculture. (2022). Supplemental Nutrition Assistance Program Education Plan Guidance FY 2022. Retrieved from <https://snaped.fns.usda.gov/program-administration/guidance-and-templates>

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ⁱⁱⁱ Ardoin, N. M., Castrechini, S., & Hofstedt, M. K. (2014). Youth-community-university partnerships and sense of place: Two case studies of youth participatory action research. *Children's Geographies*, 12(4), 479-496.

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^v United States Department of Agriculture Food and Nutrition Service, the Association of SNAP Nutrition Education Administrators & the National Collaborative on Childhood Obesity Research. (2016). SNAP-Ed Strategies & Interventions: An Obesity Prevention Toolkit for States. Retrieved from <https://snaped.fns.usda.gov/library/materials/youth-participatory-action-research-projects-ypar>

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