

SUCCESSSES

- Engaged 6 teens in a YPAR Project addressing school and community hydration
- Teens garnered school board support to provide water refilling stations
- Educated their community at a local festival and inspired visitors to drink 120 gallons of water, equal to 1,920 eight ounce cups of water!



RESULTS

“One thing that stood out to me is the feeling of actually making a difference in my community. Being able to apply what I learned also makes me motivated to learn more – it gives learning purpose.”

- Project teen

“Please pass on to the students that they were amazing! No more plastic bottles for us!”

- School District Superintendent

IMPROVING CALIFORNIA'S HEALTH THROUGH SNAP-ED

County Statement:

In Contra Costa County, the California Health Interview Survey (2015-16) found that 26% of teens, ages 12-17, drank 8 or more glasses of water the previous day. In addition, 62% of teens drank 2 or more sodas the previous day, 2 times more than the statewide rate of 29%. The consumption of sugar-sweetened beverages (SSBs) is one factor that contributes to obesity. Research shows that substituting zero calorie water in place of SSBs can help reduce weight gain ultimately reducing the risk of developing chronic diseases.

Engaging Individuals and Communities

UC Cooperative Extension (UCCE) 4-H and Nutrition, Family and Consumer Sciences Advisors collaborated to bring a Youth-led Participatory Action Research (YPAR) Project to John Swett High School (JSHS) to address water access at the school. Our program engaged 6 teens who partnered as Project 4-H2O student leaders to provide outreach to:

- 527 students at a Rethink Your Drink event, which was strategically located next to the only water station that was installed the previous month. This event resulted in a subsequent 30% increase in usage of the water station!
- 1900 visitors at a community festival informing them about their project; the health benefits of substituting zero calorie water for SSBs; and providing them access to free tap water during the event.

Providing Education

- Project teens were trained on the hydration issue and introduced to research and extension methods to investigate water access, appeal and safety.
- Trained teens were empowered to design a plan to extend the results to peers and stakeholders and to advocate for change.

Helping to Make Organizational and Environmental Changes

- Using their school survey findings, teens advocated for the school board to support the installation of 6 water refilling stations at JSHS as well as peer education efforts about the benefits of drinking water.
- The board commended the teens for their efforts and confirmed that the stations will be installed as each floor of the high school is renovated.

Building Partnerships

- A partnership with East bay Municipal Utility District (EBMUD) and the Nutrition Policy Institute (NPI) led to shared resources and national recognition of the teens' efforts.
- Project teens developed a relationship with the school board to facilitate their advocacy efforts for expansion of district policy to provide free drinking water during mealtimes - to making free and appealing drinking water available ALL day throughout the school.

2380 Bisso Lane, Suite B., Concord, CA (925) 608-6681

A. SNAP-Ed Program Overview

i. Progress in Achieving Overarching Goals:

Childhood obesity remains an American epidemic (CDC, 2017). Overweight and obese children are at increased risk of developing chronic disease, as well as social and psychological problems. The consumption of sugar-sweetened beverages (SSBs) is one factor that contributes to obesity and research shows that substituting zero calorie water in place of SSBs can help reduce weight gain. In Contra Costa County 62% of teens (12-17 yrs.) reported drinking 2 or more sodas daily, while only 26% drank eight or more glasses of water the previous day (CHIS, 2015-16). Recognizing a need to create change, University of California Agriculture and Natural Resources (UCANR) Contra Costa 4-H and Nutrition Family and Consumer Science (NFCS) staff created the Project 4-H2O program and implemented it at a local Contra Costa high school where 55 percent of the teens qualify for free and reduced priced lunch.

During FY18, Project 4-H2O successfully met Contra Costa IWP Objective #3: By September 30, 2018 UCCE-UC CalFresh will engage student leaders from one high school in YPAR efforts to facilitate PSE changes in the school/community around the issue of drinking water access and appeal.

ii. Describe Projects Implemented During the Reporting Year by Identified Primary Approach

Indirect educational approaches were conducted by the Project 4-H2O teen leaders and/or staff and included the following activities:

- 1) Peer education highlights include a Rethink Your Day tabling event which was strategically located next to the new water refilling station, which resulted in a 30% increase in usage of the station.
- 2) Project teens and staff participated in the annual Sugartown festival in Crockett to inform peers and community members about Project 4-H2O; the health benefits of drinking water; and to encourage them to choose zero calorie water as their beverage of choice. A partnership with East Bay Municipal Utility District (EBMUD) provided a mobile drinking water truck and at the end of the day, EBMUD staff notified us that 120 gallons of water was consumed, equal to 1,920 eight-ounce cups of water!
<https://ucanr.edu/delivers/?impact=1079&delivers=1>
- 3) Project teens designed, implemented and analyzed a school wide survey. They developed infographics and presented year two student survey data to the John Swett Unified School District (JSUSD) School Board and advocated for continued support for the installation of the water refilling stations and peer education about the benefits of drinking water.
- 4) Project 4-H2O staff tabled at the High School Back to School Night to provide awareness of the project and to recruit teen leaders for the 2018-2019 school year.

Policy, Systems and Environmental Change Activities conducted by the Project 4-H2O teens:

Teen advocacy efforts supported and enhanced JSUSD BP 5030 (dated 2/8/17), which states:

“The Superintendent or designee shall provide access to free, potable water in the food service during meal times in accordance with Education Code 38086 and 42 USC 178, and shall encourage students’ consumption of water by educating them about the health benefits of water by serving water in an appealing manner.”

The peer education activities increased awareness of 527 students on the health benefits of drinking zero calorie water and promoted the newly installed water refilling station at the high school.

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

i. SNAP-Ed Direct Education Participants FFY 2018

N/A for CCC

ii. SNAP-Ed Direct Education Delivery by Programming Format

N/A for CCC

iii. SNAP-Ed Delivery by Site Setting

List of Settings	# of Sites with DE reported	# of Sites/Org with PSE Activity (any stage)
John Swett High School	0	1

C. Program Highlights and Accomplishments for FFY 2018

i. Ongoing and New Projects that were Operational During the Reporting Year Identified by Primary Approach (Specify Approach: Direct, Indirect, Social Marketing, Policy, Systems, or Environmental Changes):

Project 4-H20 was initiated as an afterschool YPAR project in FY17 under a Contra Costa Health Services SNAP-Ed subcontract, but migrated to UC Cal Fresh in December 2018. The four original teen leaders were joined by two more teens to continue the momentum of year one accomplishments to promote zero calorie drinking water at John Swett High School through peer education and advocacy efforts. During year one the team researched drinking water access and appeal at the high school, created and administered a student survey, analyzed the data, created educational materials (infographic, power point, a project tip sheets, and a project brief) to share with their peers, school staff and administration. Equipped with their research based findings, teen leaders advocated for a water refilling station on each floor of their school at a school board meeting. In response, the school board approved six stations, which will be installed as part of the school renovation project. <https://ucanr.edu/delivers/?impact=1064&delivers=1> and

During FY18, the teens continued their work on drinking water access and appeal, focusing on water quality and safety at their school and in the surrounding community. The project coordinator used Putting Youth on the Map (PYOM) curriculum, developed by the UC Davis Center for Regional Change, to train the teens on mapping techniques to facilitate the creation of a map of water access points at their school and in the community. To gain information for the map and to identify water testing locations, the teens conducted a school wide survey using a revised year one survey incorporating additional questions regarding popular drinking water access locations for students outside their school in the community of Crockett. The survey identified the most popular water access locations at the school and sites in the community where JSHS students obtain free drinking water. The teens received advice about water testing from the BAYER consultants, researched water testing options, and eventually chose an appropriate test kit. After they were trained on a water testing protocol to ensure accuracy of the data, they tested the water at the two most popular access points at the school and in one drinking fountain in the community. The samples were sent to a lab and the results revealed that the water from all three sites met the criteria that deemed the water safe to drink. The project teens and staff plan to consult with EBMUD and the school district to gain support for disseminating water test results to the school and Crockett community.

ii. Program Successes and Major Achievements

Major achievements by Project 4-H20 teens:

1. Successfully created a map, with embedded photos, of the most popular water access points for the students at JSHS. In addition, collected water samples from three sites.

Plans are for FY19 teens to share the maps with their peers and school and community stakeholders, including the JSHS administration and staff, the school board and Parks and Rec.

2. Designed a project logo and slogan that was used to promote awareness of the project at their school and in the community. They conducted peer education about the benefits of drinking tap water as a substitute for SSB's during a Rethink Your Day tabling event located near the new water refilling station.



3. Administered a post student survey and collected data collected from 329 students (62% of enrolled students). After analyzing the data, they created infographics, a power point presentation, and a project brief to update the JSUSD School Board on Project 4-H2O. They advocated for continued support of the installation of the water refilling stations and peer education about the benefits of drinking water. The district superintendent expressed his support for their efforts; confirmed that the stations will be installed as each floor of the high school is renovated; and that there are plans to install stations in the adjacent middle school during a future renovation project. He also acknowledged that the board members should consider using reusable water bottles during their board meetings in place of disposable water bottles.

iii. Partnerships and Coalitions

Partnership Accomplishments:

1. Project 4-H2O staff initiated a partnership with EBMUD to gather information on their school water testing and water refilling station installation project and to assess the extent of their drinking water education efforts. We suggested that they consider utilizing the project teens to provide input for their planned signage for the water refilling station that was installed at JSHS. We were also successful in securing the EBMUD Water on Wheels (WOW) truck to compliment the Project 4-H2O booth at a community Sugartown festival in Crockett. Plans are to continue the partnership with EBMUD to coordinate water promotion at the high school and to gain advice about dissemination of water testing results to the school community and the public.
2. The Nutrition, Family, and Consumer Sciences (NFCS) Advisor connected with researchers (Christina Hecht and Laura Vollmer) at NPI who were also researching water access and appeal in schools and were testing the validity of a photo evidence tool for teens to collect data. NPI also developed and provides oversight for the National Drinking Water Alliance website. Project 4-H2O Advisors shared project activities and accomplishments with Christina and Laura and we were invited to submit a post for the website introducing the project and the infographics developed by the teens. We later submitted another post to share the project implementation tip sheets. (<http://www.drinkingwateralliance.org/education-schools>). In addition, NPI invited us to co-present at the ANR statewide conference. We plan to share the photo evidence tool with the teens as an option to assess the current drinking water landscape at the middle school.
3. The 4-H Youth Development Advisor, and co-PI of Project 4-H2O, provided expertise on youth engagement practices and supplemental funds through a 4-H Science Matters grant to enroll teens in the 4-H program, provide food for teen meetings, Kindles to collect survey data, and water testing kits. The 4-H grant also enabled the teens to attend and present their project at the 4-H National Youth Summit on Agri-Science and at the BAYER Berkeley Office. BAYER employees provided technical assistance to teens during water testing.

Coalitions:

The NFCS Advisor participates in the two multisector coalitions that also focus on RYD and drinking water promotion activities. The Bay Area Nutrition and Physical Activity Coalition (BANPAC) and Families Coalition for Activity and Nutrition (FCAN). Both coalitions provide educational materials for members to collectively promote healthy beverages, including tap water, in childcare, schools, and community organizations through RYD events.

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

Partner Title	A. Number of Partners You Work With This Reporting Year
Foundations/philanthropy organizations/nonprofits	1-4-H
Government program/agency (Federal, State, local, etc.)	1-EBMUD
Schools (preschools, K-12, elementary, middle, and high)	1-John Swett HS
Schools (colleges and universities)	1-NPI
Other (<i>please specify</i>):	1-BAYER

iv. Major Setbacks and/or Challenges

1. Our program funding transitioned to UC Cal Fresh SNAP-Ed, resulting in mid-year funding (Dec. 2017). This led to a delay in bringing on a project 4-H2O coordinator. Program staff kept the connection with the teens throughout the fall. Implementation of planned activities delayed until spring 2018.
2. Challenge communicating with the principal to gain approval to move forward with plans, including the administration of the year two survey. This resulted in a delay in collecting the data needed to assess popular water access points. We later met with the principal to determine his preferred method of communication (text), especially for time sensitive issues.
3. Communication with the parents of the teens led to project meeting attendance challenges. We conducted a parent meet and greet dinner to overcome this, plus show the parents the wonderful work their teens have done.
4. Delay in the installation of the water refilling stations led to an alternative plan to research water quality and safety through a mapping activity and water testing. Coincidentally, EBMUD installed a station towards the end of the school year, which provided an opportunity for the teens to roll out promotion of a water station during their RYD tabling event in May.

v. Program Needs Not Addressed and Why

Unmet needs: funds for reusable water bottles for students/staff and school board members; and project t-shirts for teens. Increasing staff FTE to 1.0 would allow replication at another high school. In FY19, we will not have access to the 4-H Science Matters funds that provided snacks for teen meetings and the parent meet and greet dinner.

vi. Trainings

The project coordinator, Eli, was invited to present at the YPAR cohort summer training in Sacramento in July 2018. He presented Project 4-H2O and shared project achievements, challenges, recommendations and answered audience questions. Approximately 50 SNAP-Ed staff attended.

vii. Conference Presentations and Posters, Publications

UC Delivers (<https://ucanr.edu/delivers/?impact=1064&delivers=1> and <https://ucanr.edu/delivers/?impact=1079&delivers=1>)

Web postings on the National Drinking Water

Alliance website: infographics and project implementation tip sheets (<http://www.drinkingwateralliance.org/news/page/1> and <http://www.drinkingwateralliance.org/education-schools>)

Post on BANPAC Electronic newsletter (August 2018); poster and power point presentation at the UC ANR statewide Conference (April 2018); power point presentation at the YPAR Cohort Training (July 2018); and Brown Miller interviews and filming for UC CalFresh video (July 2018)

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

Contra Costa Nutrition Facebook page post of community event (July 2018); You Tube video of teen school board presentation; one page brief on project (presented to school board); Twitter post: #project4H20

D. Key Evaluation Outcomes

Post Student Survey

Project 4-H20 teens administered a post student survey in April 2018 (through Qualtrics) to collect data on beverage choices and water consumption while at school. The pre survey was administered by the 2016-2017 teens. The teens chose to create infographics to share the post data with their peers, principal and school board. The post surveys revealed:

- 55% of students (n=329) reported water as their first choice of beverage - an increase of 19% from 2017 survey (n=320)
- 30% reported they chose water for the health benefits - an increase of 4% from 2017
- 19% reported drinking water from the 1st floor (location of new water refilling station) as their first choice – an increase of 15% from 2017

The teens created a power point presentation to share the survey results with the school board. They attended the board meeting in August 2018 and advocated for the board’s continued support for the installation of the water refilling stations and for their peer education efforts. The district superintendent expressed their continued support and commended the teens for their work.

Other data collected in FY18:

The teens added additional questions on the student survey to assess high school students’ beverage consumption habits when out of school and their favorite places to access free drinking water outside of school in the community of Crockett. The survey revealed three popular locations and this data was used to create a map of the water access points (with photos) in the school and community. The teens also decided that they wanted to conduct their own water safety tests of an older school fountain, the new water refilling station, and the fountain in the park across the street from the school (the EBMUD results were not available to the public at this point). Test kits were purchased with 4-H funds and the results revealed that the water was indeed safe to consume. The teens would like to share the results of their tests and the water tests conducted at their school by EBMUD. The Project PI’s and coordinator are requesting a meeting with the school principal and EBMUD to discuss the appropriate way to share the water testing data with the school community.

UC CalFresh YPAR Surveys:

The Project Coordinator collected the YPAR retrospective student survey from 4 teens (who had been involved in project in 2016-2017) and a YPAR pre-post student survey from a teen who joined the project in 2017-2018.

The surveys revealed:

After participating in the project, all 5 teens responded “Yes, definitely!” to the following statements:

1. I have learned that I can make a difference in my community.
2. I will be able to apply the skills I learned to other issues I am passionate about.
3. I can influence others on the importance of drinking water.

Teen Response to statement, “One thing about this project that really stood out for me”:

1. “One thing that stood out to me is the feeling of actually making a difference in my community. Being able to apply what I learned also makes me motivated to learn more – it gives learning purpose.”
 2. “Working in the public and understanding more about research.”
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3. "How positive the group was, and how much other students wanted to learn."
4. This project helped me be able to share what I'm passionate about with others."
5. "Everyone was committed."

The YPAR Project Assessment was collected from 5 teens who responded "Always" to the following statements:

For me, the project:

1. ...had youth share the results with youth, staff, and/or community members
2. ...encouraged youth to stay involved in the program

Teen Comments:

1. "Eli is an excellent ally. He constantly kept us motivated and helped us do our best work."
2. "Without our adult Ally, Eli, the group would have felt lost and confused. He did a good job at always clarifying things and supporting our ideas/opinions. Eli was always flexible and was easy to contact at any time, which was always helpful."

The data from the YPAR surveys will inform the project moving forward. We expect that the project coordinator will continue to develop his skills as an adult ally to engage the teens and guide them in their development of critical thinking, problem solving, and advocacy skills.

E. Overall Assessment

Despite the delay in funding, Project 4-H2O staff met all the program's deliverables and more. Staff were able to engage the teens to accomplish their objectives to provide peer education, create a map of popular water access points, conduct their own water quality tests, design a project logo and slogan, and present a project update to the school board. Beyond the objectives, we provided a community education and back to school outreach. We expect the new cohort of teens will successfully continue their peer education to promote consumption of zero calorie water, the use of the additional water refilling stations once they are installed, and to educate on drinking water safety.

F. SNAP-Ed Planned Improvements

During FY19 the teens will not only continue their water promotion efforts at their high school, they will also be trained on Teens-as-Teachers (TAT) methods. Plans are for them to assist with recruiting a middle school project team and educating them on the health benefits of drinking zero calorie water and on YPAR methods to evaluate water access at their middle school. This addition to our project will create a pathway to the current or future YPAR project when the middle school students transition to the adjacent high school.

The project coordinator will also begin guiding the high school teens on project sustainability plans. One idea proposed by the teens is to create a student YPAR club that would focus on identified health issues and advocacy. This could become a 4-H after school club depending on the capacity of current 4-H staff to recruit and train a volunteer adult leader.

Recommendations to address challenges that we experienced to date: (a) Establishing communication channels between school administrators, project teens, and the coordinator early on to avoid delays, confusion and mix messages; (b) Involve the teens' parents and conduct a parents' night, do not assume that teens will share information at home; (c) Ask additional questions on the student application to assess teen's capacity to commit to the project and require a parent signature to avoid teen last minute cancellations to attend project meetings and activities due to conflicting commitments (school, sport, work, or family); (d) Reach out to other stakeholders working on tap water promotion to coordinate efforts and support project goals.
