

# Effects of School-Based SNAP-Ed Education Interventions with and without Policy, Systems, and Environmental Change Strategies

Research Brief – September 2025

## Background

Many children in the United States do not meet nutrition and physical activity (PA) recommendations, increasing their risk for long-term health issues. To address these gaps, California's SNAP-Ed program, known as CalFresh Healthy Living (CFHL), implements nutrition and physical activity promotion interventions in schools. These interventions can include education, such as interactive classes using evidence-based curricula (direct education) or the display or distribution of health promotion materials (indirect education), as well as policy, systems, and environmental change (PSE) strategies which complement education interventions by making healthy choices easier and more appealing. PSE strategies have increasingly been encouraged as a focus of CFHL programming, as they can reach larger proportions of students and can be more sustainable over time compared to education-only interventions.

## What We Evaluated

This study evaluated the impact of education-only and education with PSE interventions on students' dietary and PA behaviors, and whether school and student characteristics influenced intervention effects. Researchers compared outcomes between schools receiving CFHL interventions and comparison schools with no CFHL programming. Student dietary and PA behaviors were self-reported through a validated survey administered before and after the intervention period.



*The interventions included:*



### Direct education (DE)

Curricula most often used in our sample were Let's Eat Healthy and CATCH Kid's Club.



### Indirect education (IE)

Topics centered around fruits & vegetables, MyPlate food groups, and portion sizes.



### Policy, systems, and environmental (PSE) changes

Examples include playground markings & facilities, classroom physical activity breaks, and school gardens.

## What We Found

There were no statistically significant differences in PA behaviors among any of the intervention groups compared to the comparison group. However, there were differences in dietary behaviors which varied by intervention type, with the education plus PSE group reporting improvements in fruit, vegetable, and sugary drink intake frequency:

	Education only	Education + PSE
 <b>Fruits</b>	<input checked="" type="checkbox"/> Increased frequency of 100% fruit juice intake	<input checked="" type="checkbox"/> Increased frequency of whole fruit intake
 <b>Vegetables</b>	<input type="checkbox"/> No change in intake frequency	<input checked="" type="checkbox"/> Increased frequency of vegetables and beans intake
 <b>Sugary drinks</b>	<input type="checkbox"/> Increased frequency of sport & energy drink intake	<input checked="" type="checkbox"/> Decreased frequency of soda intake

Compared to students in schools receiving no CFHL intervention:

- Students in **urban schools** receiving education only increased intake frequency of sweetened fruit drinks.
- Students in schools with **free and reduced-price meal eligibility above the state average** receiving education and PSE increased intake frequency of beans.

## Implications for CFHL Program Delivery and Future Research

This study's findings support the value of school-based CalFresh Healthy Living interventions, and highlight specific strategies that may enhance the impact of interventions on students' health behaviors:

- Combining PSE strategies with nutrition education in schools may improve dietary behaviors such as increased fruit and vegetable consumption frequency and reduced soda intake frequency.
- Education interventions should comprehensively address all sugar-sweetened beverages –not just soda–to prevent unintended increases in sports drinks, energy drinks, and fruit juice.
- Efforts to promote healthy beverage alternatives, such as water, should be strengthened through focused education and PSE efforts.
- Considering the unique characteristics of a school and tailoring interventions accordingly can enhance relevance and impact.

## For More Information

- ✓ [Read the full peer-reviewed research article](#)
- ✓ [Learn more about our CFHL evaluation research](#)
- ✓ [Contact us at EvaluateSNAPed@ucanr.edu](mailto:EvaluateSNAPed@ucanr.edu)

## Suggested Citation

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