

Student and school characteristics modify impact of SNAP-Ed on dietary and physical activity outcomes

Research Brief – October 2025

Background

Most children in the United States do not meet dietary recommendations, and only a quarter engage in the recommended 60 minutes of physical activity (PA) per day. The school context may play a role in students' health behaviors; for example, less healthy diets and low activity levels tend to be more common among students in lower socioeconomic status (SES) schools. To bridge this equity gap, the CalFresh Healthy Living (CFHL) program, known as SNAP-Ed nationally, delivers nutrition and PA interventions in low-income schools. Programs like CFHL can play an important role in preventing the widening of health disparities during public health crises, such as the COVID-19 pandemic.

What We Evaluated

The Nutrition Policy Institute, part of University of California Agriculture and Natural Resources (UC ANR), conducted a study to examine the impact of CFHL interventions in the school year following COVID-19-related school closures (2021-22) on student diet and PA behaviors. We identified baseline disparities in diet and PA behaviors and examined whether intervention outcomes differed based on student and/or school characteristics and whether those differences addressed the baseline disparities.

Sample: Our sample included 69 CFHL-eligible public schools—where at least 50% of students were eligible for Free and Reduced-Price Meals (FRPM). Fifty-one schools had received CFHL programming, and 18 comparison schools had not received programming within three years.

Methods: Surveys were administered to fourth and fifth graders near the beginning and end of the school year for all schools, and before and after interventions for intervention schools.



The survey assessed...



Frequency of consumption of fruits, vegetables, and beverages.



The number of days students were engaged in PA for at least 60 minutes, number of days students had a structured physical education class, and relative proportion of time they were active in physical education class.



Demographic characteristics such as age, gender, race/ethnicity, grade, and type of school attendance (remote, in person, hybrid).

What We Found

Intervention implementation  All 51 CFHL intervention schools utilized nutrition and/or PA curricula		 55% of CFHL intervention schools used policy, systems, and environmental (PSE) change strategies
Improved behaviors 	Students attending schools with CFHL interventions reported consuming fruits and vegetables more frequently	This increase was primarily driven by 100% fruit juice, and starchy and orange vegetables
Differences by context  CFHL interventions were associated with a greater increase in vegetable consumption frequency in urban schools than rural schools	SES Patterns  At baseline, students in schools with FRPM enrollment above state average reported more frequent consumption of sugary beverages and less time spent on moderate/vigorous PA	 CFHL interventions were associated with greater increase in fruit consumption frequency and physical activity in schools with greater enrollment in the FRPM program

Implications for CFHL Program Delivery and Future Research

This study highlights the impact of CFHL on student diet and PA behaviors in the school year following COVID-19-related school closures. By examining disparities in baseline health behaviors by student and school characteristics, and whether these disparities were addressed by differences in intervention effectiveness by student and school characteristics, we identified where and how interventions can be most effectively targeted.

Reinforce the value of school-based CFHL programming post-COVID:

CFHL participation was consistently linked with higher fruit and vegetable intake frequency, highlighting the program's effectiveness in promoting healthier eating habits in the school setting.

Tailor support to rural schools:

Rural schools may benefit from more customized intervention strategies that recognize their unique challenges and assets. For example, farm-to-school approaches that capitalize on proximity to local agriculture may help connect students to their food choices.

CFHL interventions can promote health equity:

Schools with the highest FRPM enrollment saw greater impacts on fruit intake and PA than relatively lower FRPM schools, indicating that interventions in the lowest-income schools may help close equity gaps in diet and physical activity.

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)

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