

Supporting a Healthy Lifestyle Among Low-Income Children: Key Findings from the 2011 California Children's Healthy Eating and Exercise Practices Survey

The Nutrition Education and Obesity Prevention Branch (NEOPB) strives to create innovative partnerships that empower low-income Californians with the goal of preventing obesity and related chronic diseases through increased consumption of healthy foods, decreased consumption of less healthy foods, increased opportunities for physical activity, and support for food security.



In 2011, nearly half (46.0%) of California's low-income children* were classified as overweight or obese, with over a quarter of children classified as obese (25.2%).[†] One major objective of the *Healthy People 2020 Objectives (HP2020)* that aligns with NEOPB is to reduce the prevalence of obesity among children aged 6 to 11 years (*HP2020* target: 15.7%).¹ To reach this target, obesity among low-income children in California will need to be reduced by nearly 40%.

Progress related to NEOPB's goals is measured through surveys that track self-reported dietary behaviors and physical activity while also identifying opportunities and challenges that low-income Californians face. This information is used to develop or refine interventions that promote healthy lifestyles.

The California Children's Healthy Eating and Exercise Practices Survey (CalCHEEPS) is one of three surveys implemented by the NEOPB. Conducted biennially, it uses a telephone-based 24-hour recall to monitor diet and physical activity trends among low-income California children (9-11 years) and evaluate their progress toward meeting the *2010 Dietary Guidelines for Americans (2010 DGA)*, the *HP2020*, and the *2008 Physical Activity Guidelines for Americans*.¹⁻³ In 2011, the survey sample was randomly selected from a list of households receiving CalFresh throughout the state. Key findings from the 2011 survey for California's low-income children (n=334) are summarized below. Only comparisons that are significantly different ($p < 0.05$) are presented. For more information about the survey questions and methodology, see the NEOPB statewide survey website: www.cdph.ca.gov/programs/cpns/Pages/CaliforniaStatewideSurveys.aspx#1.

* Low-income is defined as living in a household receiving CalFresh.

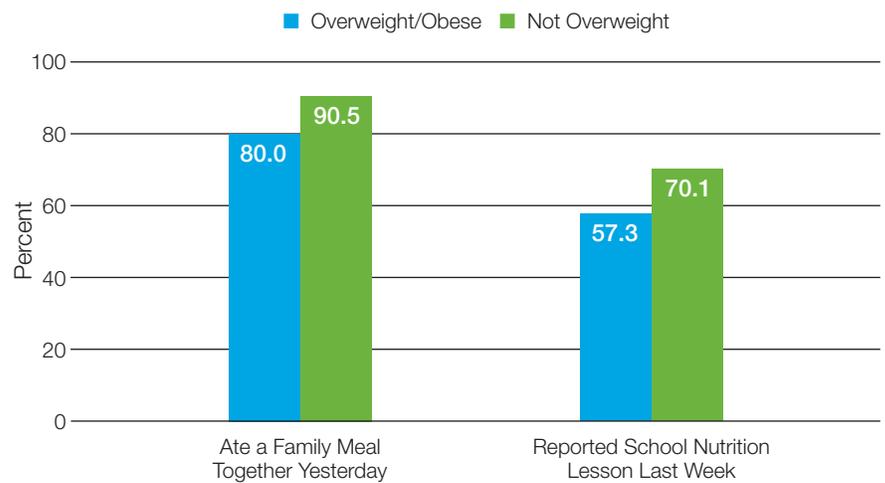
[†] Overweight among children is defined as a Body Mass Index (BMI) at or above the 85th percentile, but below the 95th percentile. Obesity is represented by a BMI at the 95th percentile or higher.



Finding 1 **Family meals and nutrition lessons in school may support healthy weight among low-income children.**

School and home environments both have roles in encouraging healthy eating practices among children. In adolescents, studies have shown the effectiveness of behavior-based nutrition curricula in schools, and eating dinner as a family are associated with healthy dietary intake, including eating more fruits and vegetables.^{4,5} Overweight and obese children from low-income homes were less likely to report family meals and school nutrition lessons than children who were not overweight (Figure 1).

Figure 1. Low-Income Overweight and Obese Children Were Less Likely To Report Family Meals and School Nutrition Lessons



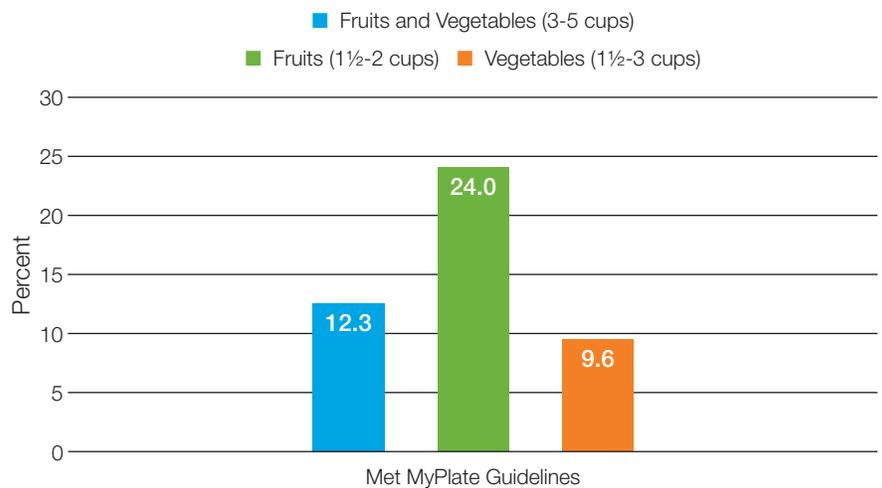
Potential promising approaches to support healthy weight among low-income children might be to include nutrition education at all grade levels in school and promote family meals.

Finding 2

Low-income children eat too few fruits and vegetables.

Fruit and vegetable consumption promotes nutrient adequacy, disease prevention, overall good health, and may also protect against weight gain.^{2,6-8} In 2011, intake among California's low-income children was 1.7 cups per day, below the amount recommended by the *2010 DGA* and *NEOPB* (3-5 cups of fruits and vegetables each day, depending upon age, gender, and activity level).² Moreover, only one-quarter (24.0%) of low-income children met the *DGA MyPlate* guideline for fruit; while one in ten (9.6%) reported eating the recommended number of cups of vegetables (Figure 2).

Figure 2. Most Low-Income Children Fell Short of the MyPlate Guidelines for Fruits and Vegetables





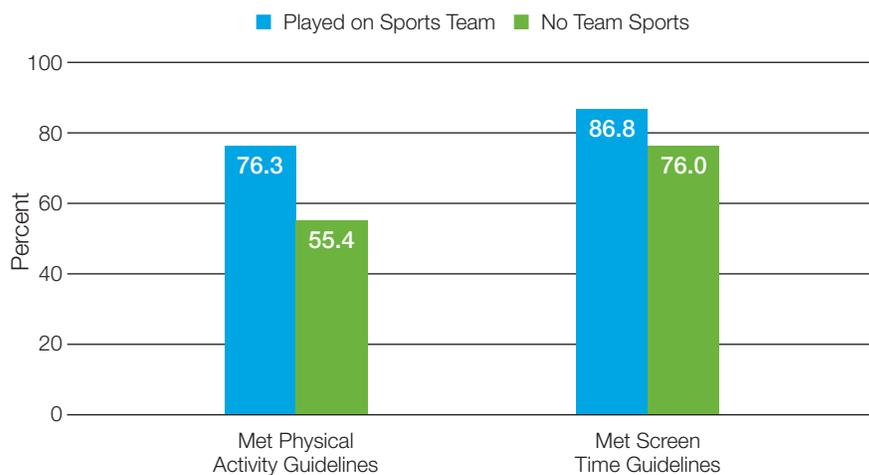
Finding 3

Playing on sports teams helps low-income children meet physical activity and screen time guidelines.

In line with the *2008 Physical Activity Guidelines for Americans*, the NEOPB recommends that children engage in 60 minutes or more of physical activity daily.³ However, less than two-thirds (63.7%) of California’s low-income children reported physical activity at the recommended level in 2011.

California children from low-income homes who played on a sports team were more likely to meet the physical activity (60 minutes or more per day) and screen time (no more than 2 hours per day) recommendations than those not participating in team sports (Figure 3).

Figure 3. Low-Income Children Who Played on Sports Teams Were More Likely to Meet the Physical Activity and Screen Time Guidelines



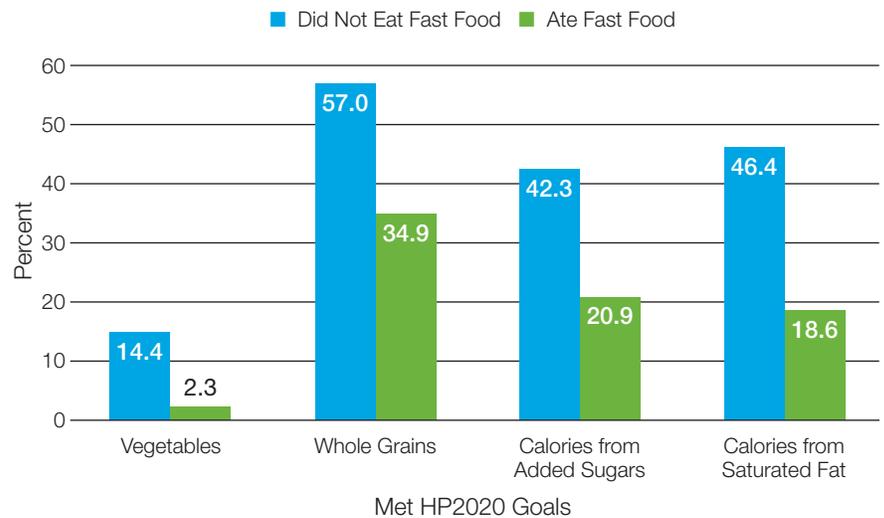
Thus, facilitating increased opportunities for physical activity may encourage the development of healthy and active lifestyles among low-income children in California.

Finding 4

Avoiding fast foods improves diet quality and reduces caloric intake among low-income children.

Decreasing the consumption of fast foods can improve diet quality and reduce caloric intake.^{9,10} Confirming this, children from low-income households in California who did not eat fast food on the prior day were more likely to meet the *HP2020* objectives for vegetables, whole grains, added sugars, and saturated fat in 2011 than those who did not (Figure 4).¹

Figure 4. Low-Income Children Who Ate Fast-Food Were Less Likely to Meet *Healthy People 2020* Targets for Diet Quality



Fast food consumption was also associated with higher total caloric intake among low-income children. Low-income children who reported eating fast food on the prior day consumed over 416 more calories per day compared to those that did not eat fast food (Figure 5).

Figure 5. Low-Income Children Who Ate Fast Food Consumed Over 400 More Calories per Day



The *2010 DGA* provides suggestions to families for achieving a healthy diet, including: choosing smaller portions or sharing a meal when dining out, checking the calories in foods and selecting lower calorie options, cooking and eating more meals at home, and eating a nutrient-dense breakfast.²

Social Norms and Environment

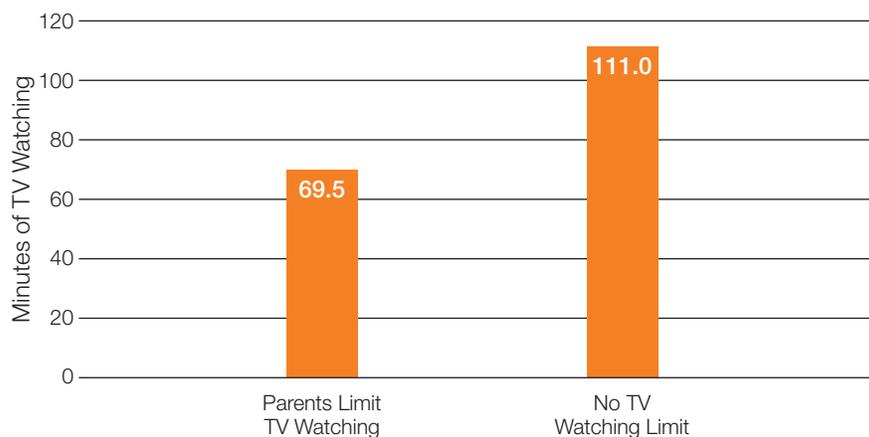
A key priority of the NEOPB is to facilitate changes to policies, systems, and environments to increase support of healthy eating, regular physical activity, and reduced screen time as the norms for California children. Family norms, household rules, nutrition education, and home and classroom environments can support or inhibit these health behaviors among low-income children in California.

Finding 5 Household rules help reduce screen time among low-income children.

Strong evidence shows that more screen time, particularly television viewing, is associated with poor diet quality and obesity in children, adolescents, and adults.^{11,12} The 2010 DGA guideline for screen time among children is no more than 2 hours a day.² In 2011, 80.6% of low-income children met the guideline for television viewing (no more than 2 hours a day); however, this is still below the HP2020 target of 86.8%.¹

When asked “Do your parents limit the amount of time you spend watching television or playing video games to less than two hours per day?”, low-income children who answered “yes” reported 41.5 minutes less screen time per day (Figure 6).

Figure 6. Low-Income Children Watched Less Television When Parents Limited Screen Time



Therefore, setting household rules can support reductions in screen time among low-income children in California.

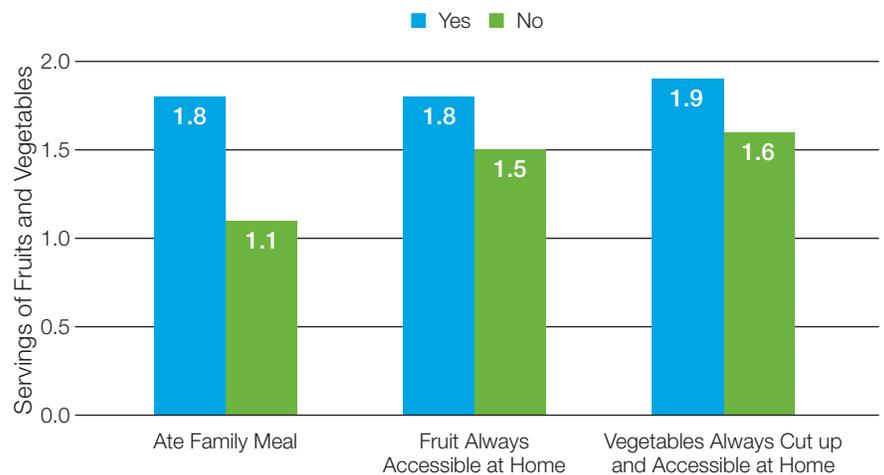
Finding 6

Parents who exercise and eat with their families are role models for healthy lifestyles.

Parents have a profound influence on childhood obesity by providing a healthy home environment, being involved and supportive, and role modeling healthy eating and physical activity.⁴ Low-income children who exercised together with their family were more likely to meet the *HP2020* objective for screen time (83.9 vs. 68.7%).

In addition, eating meals together as a family and access to fruits and vegetables in the home are related to higher fruit and vegetable intake among low-income children (Figure 7).

Figure 7. Low-Income Children Consumed More Fruits and Vegetables When Eating Family Meals Together and When Available in the Home



Notes: Ate a family meal yesterday.

Thus, parents are valuable role models for their children with the opportunity to demonstrate and support healthy eating practices and active lifestyles.



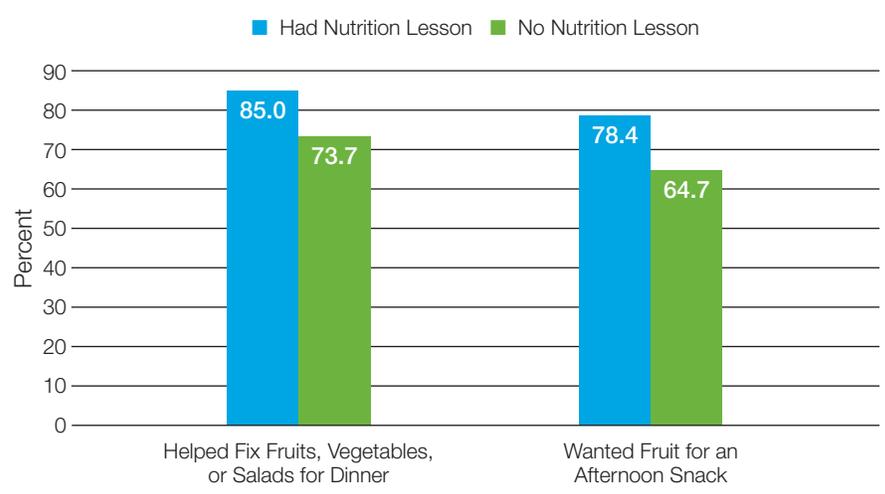


Finding 7 Schools play a critical role in promoting healthy eating.

A. Fruit and Vegetable Taste Testing in the Classroom: Low-income children who previously had the opportunity to taste fruits and vegetables in the classroom ate more fruits and vegetables (3.7 vs. 3.0 servings). Participation in school nutrition lessons may help empower low-income children to make healthy food choices.

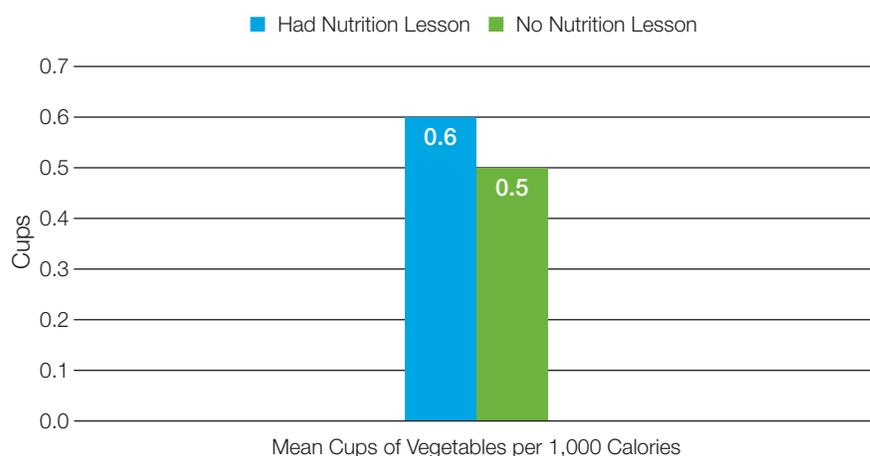
B. Nutrition Lessons at School: Furthermore, low-income children who received nutrition lessons at school were more likely to help fix fruits and vegetables for dinner and to want fruit for a snack (Figure 8).

Figure 8. Low-Income Students Receiving Nutrition Lessons Were More Likely to Help Prepare Fruits and Vegetables for Dinner and Want Fruit as a Snack



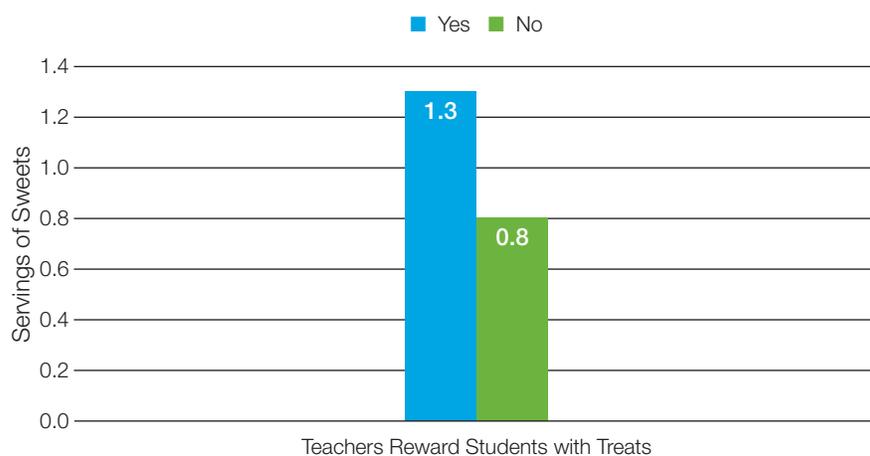
Participation in nutrition lessons at school was also positively related to vegetable consumption. Low-income children who had lessons reported eating more vegetables than those with no lessons (Figure 9).

Figure 9. Low-Income Students Receiving Nutrition Lessons Ate More Vegetables per Day



C. Teacher Using Foods as Classroom Rewards: In contrast, those children with teachers who rewarded students with treats like candy, cookies, and soda reported eating a half serving more sweets per day than those not receiving high calorie treats in the classroom (Figure 10).

Figure 10. Low-Income Students Rewarded by Teacher with Treats in the Classroom Ate More Sweets per Day



School wellness policies that incorporate healthy classroom criteria that limit the use of high calorie, low nutrient foods such as candy, cookies, and soda as rewards to students may help to improve the diets of low-income children and promotes a healthy learning environment.



Data Source

Data presented here are from the California Department of Public Health, Nutrition Education and Obesity Prevention Branch (NEOPB), Research and Evaluation Section, 2011 California Children's Healthy Eating and Exercise Practices Survey (CalCHEEPS). For more information about the survey questions, background and methodology, and to view the 2011 data tables, visit the NEOPB statewide survey website: <http://www.cdph.ca.gov/programs/cpns/Pages/CaliforniaStatewideSurveys.aspx#1>.

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