

Highlights from the Nutrition Education and Obesity Prevention Branch's 2013 California Children's Healthy Eating and Exercise Practices Survey

The *California Children's Healthy Eating and Exercise Practices Survey (CalCHEEPS)* is the most extensive dietary and physical activity assessment of 6- to 11-year-old children in California. The *CalCHEEPS* was first conducted in 1999 and is administered biennially in odd years. The *CalCHEEPS* uses a telephone-based 24-hour dietary recall to monitor dietary trends, especially fruit and vegetable (FV) consumption, among low-income California children to evaluate their progress toward meeting the *2010 Dietary Guidelines for Americans (2010 DGA)*, the *Healthy People 2020 Objectives (HP2020)*, and the *2008 Physical Activity Guidelines for Americans*. In 2013, the survey sample (n=651) was randomly selected from a list of households receiving CalFresh in the state. Data were weighted by age and race/ethnicity to reflect the population of household in California with 6- to 11-year-old children receiving CalFresh and analyzed by demographic, behavioral, and environmental factors. Key findings for California's low-income children are summarized below. Additionally, only significant ($p < 0.05$) findings are discussed. This document highlights the most notable findings from the 2013 survey and references the more detailed findings posted to the Nutrition Education and Obesity Prevention Branch's (NEOPB) website:

Sampling California's Low-Income Children

Low-income is defined as households receiving CalFresh.

<http://www.cdph.ca.gov/programs/cpns/Pages/CaliforniaStatewideSurveys.aspx#1>.

Fruits & Vegetables:

The *2010 DGA* and NEOPB recommend that children consume between 2½-5 cups of FV each day (dependent upon their age, gender, and activity level) to promote healthy growth and development. California's low-income children fall nearly 1 cup below the recommended minimum intake for FV. Examining FV consumption patterns among children helps identify opportunities for NEOPB's nutrition education interventions to support Californians' progress towards meeting this recommendation.

- FV consumption among California's low-income children was 1.7 cups (or 3.5 servings) per day, significantly below the amount recommended. (**Table 1**)
- One-quarter (26.8%) of these children met the *DGA MyPlate* guideline for fruit; while only one in ten (10.1%) reported eating the recommended amount of vegetables. (**Table 5**)
- Among low-income children, vegetables accounted for 0.7 of the 1.7 cups (or 1.5 of the 3.5 servings) of FV reported per day (**Table 1**); fruit intake made up 0.6 of a cup (or 1.2 servings) (**Table 2**). Fruit juices were consumed least often (0.4 cup; 0.8 serving), but still accounted for nearly one-quarter (23.3%) of the total FV reported by children. (**Table 2**)

Sugar-Sweetened Beverages:

Decreasing sugar-sweetened beverage¹ (SSB) consumption among Californians is a more recent priority area of NEOPB. The *2010 DGA* indicated that 46% of added sugar consumed by Americans comes from SSBs. Emerging from this is the recommendation to reduce consumption of added sugars in the diet, and specifically reduce intake of SSBs. Although significant improvements have been seen in SSB consumption among California children from 1999 to 2009,² there is still room for additional progress.

- California's low-income children averaged just under one (0.82) serving of SSBs per day. (**Table 51**)
- Looking at the type of SSBs consumed, these children reported drinking the most daily servings of sweetened fruit drinks (0.34 serving) followed by flavored milks and soft drinks (0.21 and 0.18 serving). (**Table 51**)
- Children from low-income homes who consumed SSBs drank one-third of a serving less milk than those not having sugary drinks (0.9 vs. 1.2 servings). (**Table 58**)

Fast Food & Dietary Practices:

An objective of the *HP2020* is to reduce the consumption of calories from solid fats and added sugars. While high calorie, low nutrient foods come from many sources, fast foods are often more calorie dense and less nutritious than meals cooked at home. The *2010 DGA* provides suggestions to families for achieving a healthy diet which include: 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. Decreasing the consumption of fast foods among low-income children in California can improve diet quality and reduce caloric intake.

- Children from low-income households in California who ate fast food were less likely than those without fast food to meet the *HP2020* objectives for fruit (13.3 vs. 38.3%; **Table 130**), vegetables (2.9 vs. 13.2%; **Table 131**), whole grains (43.4 vs. 56.9%; **Table 133**), and added sugars (37.0 vs. 54.7; **Table 135**).
- When examining high calorie, low nutrient foods (HCLN), children eating fast food were more likely to consume SSBs (77.1 vs. 54.7%), sweets (87.5 vs. 74.6%), and high-fat snacks (52.7 vs. 29.9%) (**Table 65**); and twice as likely to consumed larger quantities (3 or more servings) of HCLN foods compared to the children not reporting fast food (31.7 vs. 14.7%). (**Table 57**)
- Fast food consumption was associated with 379 more total calories (1,712.2 vs. 1,333.7) and 139 more empty calories (451.7 vs. 312.9) per day among low-income children. (**Table 59**)

Physical Activity and Sedentary Time:

In line with the *2008 Physical Activity Guidelines for Americans*, the NEOPB recommends that children engage in 60 minutes or more of physical activity (PA) daily. The *2010 DGA* and *HP2020* also provide a guideline for limiting screen time among children (no more than 2 hours a day). The *HP2020* set a target

¹ Sugar-sweetened beverages include soda/soft drinks, fruit drinks, sweetened tea, sweetened coffee/coffee substitutes, sweetened water, sports/energy drinks or sweetened meal replacement/supplement, and sweetened flavored milks. Servings of beverages are measured as 8 fluid ounce-equivalents; dairy is measured in 1 cup-equivalents.

² Keihn AJ, Linares AM, Rider CD, Sugerman S, Mitchell PR, Hudes M. Education, Diet, and Environmental Factors Influence Sugar-Sweetened Beverage Consumption Among California Children, Teens, and Adult. Sacramento, CA: California Department of Public Health; 2012.

of increasing the proportion of children meeting this objective to 86.8% by 2020. Facilitating increased opportunities for PA and reducing screen time encourages the development of healthy and active lifestyles among low-income children in California.

- Just over half (55.5%) of the children surveyed reported getting the recommended amount of PA (60 or more minutes per day). (**Table 73**)
- In contrast, 85.9% of low-income children in California met the guideline for television (TV) viewing (no more than 2 hours a day), falling just below the *HP2020* target of 86.8%. (**Table 77**)
- California children from low-income homes who played on a sports team reported 12 more minutes of PA per day (88.4 vs. 76.3 minutes) and were more likely to meet the PA recommendation than those not participating in team sports (61.3 vs. 52.4%). (**Table 104**)

Overweight:

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. One major objective of the *HP2020* that aligns with NEOPB is to reduce the prevalence of obesity among children aged 6 to 11 (*HP2020* target: 15.7%). To reach this target, obesity among low-income children in California will need to be reduced by over 40%. Promising approaches to support healthy weight among low-income children include family meals, removing televisions from children's bedrooms, and household rules limiting screen time.

- In 2013, three out of seven (43.1%) of California's low-income children were classified as overweight or obese. The prevalence of obesity was 27.1% among low-income children. (**Table 90**)
- When comparing overweight and obese children to those not overweight, overweight and obese children were less likely to have household rules limiting TV time (75.2 vs. 82.4%; **Table 102**); more likely to have a TV in their bedroom (68.6 vs. 59.3%; **Table 82**); spent more time watching TV, videos/DVDs, or playing video games (87.9 vs. 73.7 minutes; **Table 77**); and were less likely to meet the screen time recommendation (no more than 2 hours a day) (80.5 vs. 88.1%; **Table 77**).
- Family meals were reported less often by overweight and obese children from low-income homes (86.5 vs. 92.3%). (**Table 60**) They also reported drinking nearly one-third of a serving more SSBs per day than children who were not overweight (0.7 vs. 1.0 serving). (**Table 50**)

Social Norms and Environment:

A key priority of NEOPB is to facilitate changes to policies, systems, and environments that support healthy eating, regular PA, and reduced screen time as the norms for California children. Family norms, household rules, school physical education (PE) classes, and home and school environments can support or inhibit these health behaviors among low-income children in California:

- Participation in school meals was positively related to FV consumption. Low-income children reported a half serving more FV when eating school breakfast (3.8 vs. 3.3 servings) and nearly three-quarters of a serving more FV at school lunch than those not eating these school meals (3.9 vs. 3.2 servings). (**Table 1**)

- Children from low-income homes who reported that the PE offered at their school met the California mandate of 200 or more minutes every 10 days were more likely to meet the daily PA recommendation (60 or more minutes) than those attending schools that provided less PE (61.4 vs. 51.2%). (Table 104)
- Access to the vegetables you like at home and eating family meals together related to higher FV intake among low-income children (1.9 vs. 1.6 servings, 1.8 vs. 1.3 servings; respectively). In contrast, children who reported that adults in their home always eat high-fat foods drank one-third of a serving more SSBs per day (1.1 vs. 0.8 servings). (Tables 103)
- Household rules limiting TV time to no more than two hours a day related to nearly 17 minutes less screen time per day (77.7 vs. 94.6 minutes) and more children meeting the *HP2020* objective (88.3 vs. 76.4%). In addition, low-income children who had a TV in their bedroom were less active (75.5 vs. 88.6 minutes) and less likely to meet the screen time recommendation (83.7 vs. 89.9%) than those without a TV in their bedroom. (Table 104)
- Low-income children who exercised together with their family reported nearly 25 more minutes of PA per day (84.0 vs. 59.6 minutes) and were more likely to meet the recommendations for PA (60 or more minutes per day; 57.3 vs. 43.3%) and screen time (no more than 2 hours a day; 87.0 vs. 78.3%). (Table 104)
- Finally, obesity prevention initiatives targeting young low-income children (6-8 years) should engage parents in the promotion of family support, home availability, and household rules that support healthy eating, PA, and reduced screen time to prevent declining rates among older children (9-11 years) (see figure below).

