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## Majority of Young Children in California Eat Fast Food Regularly but Drink Less Soda

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*“70% of young Latino children eat fast food at least once a week.”*

**SUMMARY:** This policy brief examines the eating habits of children ages two to five years. Despite steady declines in soda consumption, 60 percent of children in this age group continue to eat fast food at least once a week. Among young Latino children, the rate is 70 percent; overall, one in ten young children eats three or more fast food meals per week. The majority of children also fall short of the state standard on fruit and vegetable consumption, with only 57 percent of parents reporting that their child ate at least five fruit and vegetable servings the previous day. Asian children have the lowest levels of fruit and vegetable consumption, and

both Asian and Latino parents report lower levels of influence over their children's diets than do White and African-American parents. Policies and education designed to reduce soda consumption have clearly had an effect, as these and other data show. Given the poor trajectory for children who are overweight before they reach age six, investments in programs that help reduce fast food consumption and promote eating more fruits and vegetables (for example, serving fruit instead of fruit juice) may be among the policy solutions that will help improve young children's health.

Nationally, the prevalence of overweight and obesity among children started to rise in the 1980s and doubled between 1980 and 2000.<sup>1</sup> Today, about one-fourth of children ages two to five are overweight or obese.<sup>2,3</sup> Low-income and minority children are at greatest risk for overweight at an early age,<sup>4</sup> and the health consequences are well documented. Obese children are at increased risk for developing type 2 diabetes, high blood pressure, cardiovascular disease, asthma, and sleep apnea.<sup>5</sup> They are also at greater risk of experiencing social and emotional problems, such as discrimination and low self-esteem.<sup>6</sup> Research indicates that the types of poor quality food that are increasingly available and that are marketed to and consumed by children—for example, fast food and soda—have contributed to the growth of childhood obesity.<sup>1,7,8,9,10</sup>

California has been at the forefront of addressing childhood obesity, through both public health messaging and legislation.<sup>11</sup> In 2003, California became the first state in the nation to ban the sale of soda in elementary schools, and between 2005 and 2009 the ban was extended to high schools.<sup>12</sup> In 2010, additions were made to the California Health and Safety Code requiring that child day care facilities serve only low-fat (1 percent) or nonfat milk to children ages two and older, limit juice (100 percent fruit juice) to not more than one serving per day, serve no beverages with added sweeteners (whether natural or artificial), and make clean drinking water available all day.<sup>13</sup>

Using data from the California Health Interview Survey (CHIS), this policy brief examines the eating habits of young children,



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including fast food, soda, and fruit and vegetable consumption, as well as parents' perceptions of their influence over what their child eats.<sup>14</sup>

*“Children who eat more than one fast food meal a week drink more soda.”*

### Indicators

- Number of fast food meals the child ate during the past week
- Number of glasses or cans of soda or other sugary drinks the child drank the previous day
- Number of servings of fruits or vegetables the child ate the previous day
- Parent's perceived influence over what the child eats

### Assessing Young Children's Nutrition in California

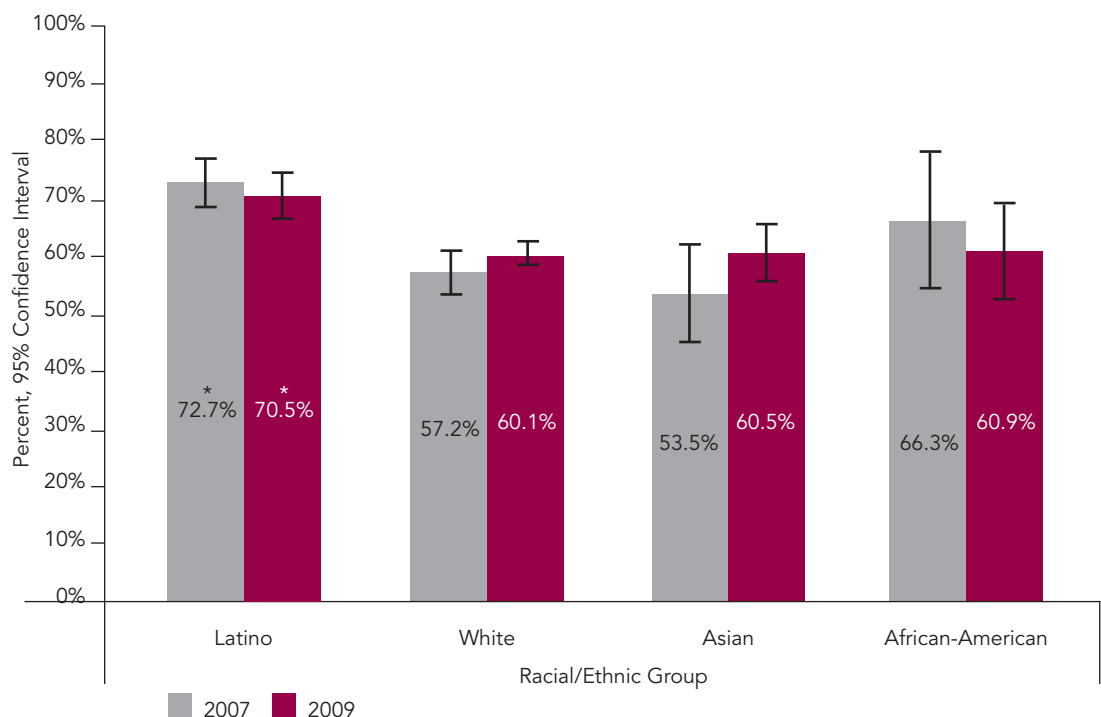
CHIS gathers information on children's eating habits through telephone interviews with the adult in the household who is most knowledgeable about the child's health (usually a parent). The side box lists the four dietary indicators that were examined across several years of CHIS data.

### Majority of Young Children Eat Fast Food Meals Regularly

In both 2007 and 2009, about two-thirds of children ages two to five ate at least one fast food meal during the previous week, and 29 percent ate two or more.<sup>15</sup> About 10 percent of children in this age group ate three or more fast food meals the previous week. The proportion was highest among Latino children, with about 70 percent consuming at least one fast food meal in the prior week, whereas about 55-60 percent of White, Asian, and African-American children did so (Exhibit 1).

Exhibit 1

Percent of Children Ages 2-5 Who Ate At Least One Fast Food Meal in Previous Week, by Racial/Ethnic Group

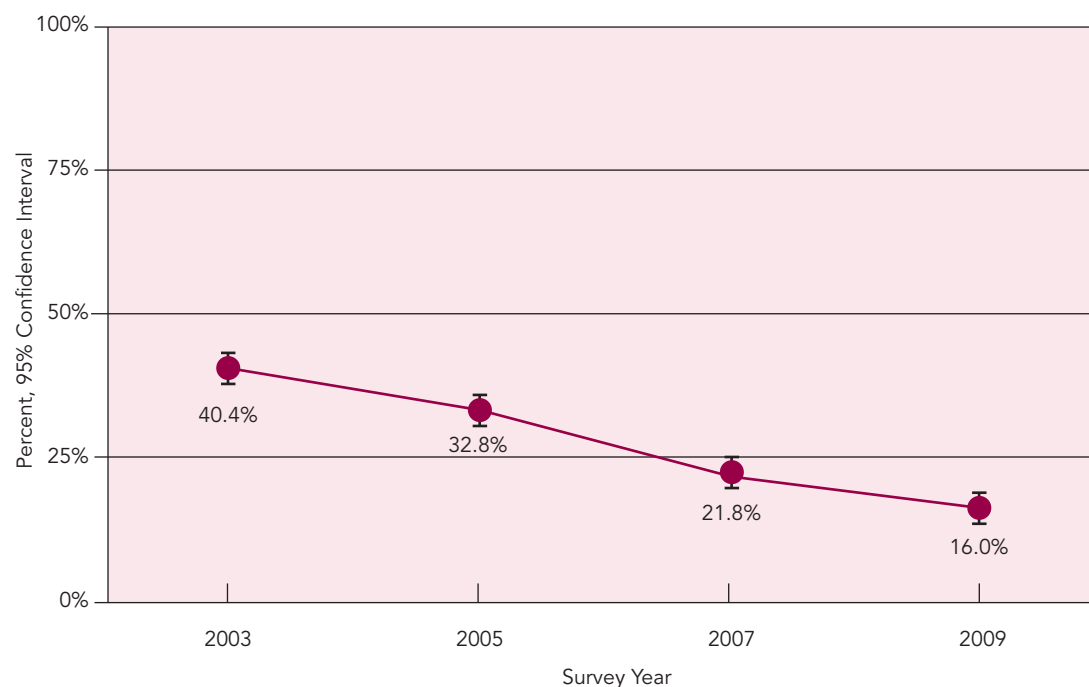


\*Latino percentages are significantly higher than White and Asian percentages.

Source: 2007, 2009 California Health Interview Survey

## Percent of Children Ages 2-5 Who Drank Soda or Other Sugary Drinks the Previous Day

## Exhibit 2



All differences are significant.

Source: 2003, 2005, 2007, 2009 California Health Interview Survey

The relationship between fast food and soda consumption was also examined, since they are often served together (e.g., McDonald's Happy Meals). Twenty-two percent of all children who ate two fast food meals the previous week and 34 percent of those who ate three or more fast food meals the previous week also drank soda on the prior day. These rates were significantly higher than the prior-day soda consumption rates for children who ate one fast food meal (13 percent) or no fast food (11 percent) the previous week.

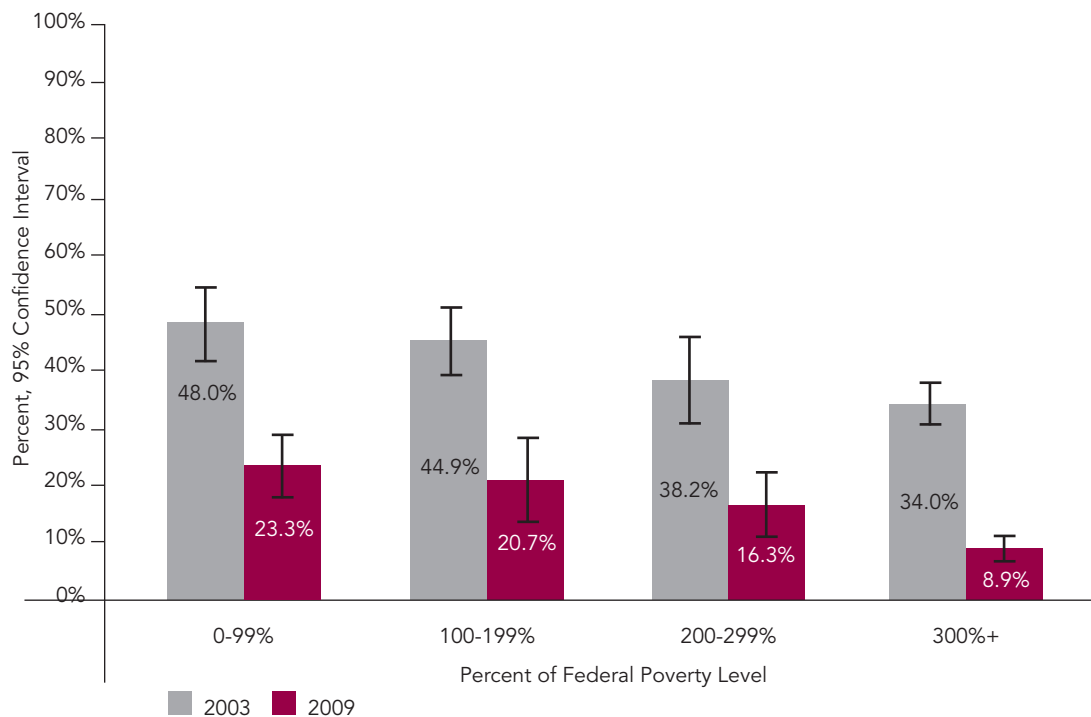
### Young Children Drinking Less Soda

Despite the association between fast food and soda consumption, there has been a sharp decline in the number of very young children drinking sugar-sweetened beverages in California (Exhibit 2). In 2003, 40.4 percent of young children drank soda the previous day, and by 2009 the proportion had dropped to 16.0 percent. The percentage in each reporting year was significantly lower than the percentage in the prior reporting year, with the biggest decrease occurring between 2005 and 2007 (with a drop from 32.8 percent to 21.8 percent). Overall, this reduction in soda consumption was seen in all income categories and all racial/ethnic groups, although demographic differences remained across the six years.

*“Overall soda consumption is on the decline.”*

## Exhibit 3

## Percent of Children Ages 2-5 Who Drank Soda or Other Sugary Drinks the Previous Day, by Household Income



All 2003-2009 differences are significant.

Source: 2003, 2009 California Health Interview Survey

*“Less than half of young children in California eat five servings of fruits and vegetables daily.”*

Children in households with incomes below 200 percent of the federal poverty level (FPL) were more likely to have consumed soda the previous day than those in households with incomes of 300+ percent FPL (Exhibit 3). In 2003, one-third (34.0 percent) of children in the highest income category (300+ percent FPL) drank soda the previous day, and 48.0 percent of children living in households with incomes below 100 percent FPL did so. By

2009, the percentages had decreased to 8.9 percent of children in the highest income category and 23.3 percent of children in the 0-99 percent FPL category. The decrease occurred across all income groups.

## Percent of Children Ages 2-5 Who Drank Soda or Other Sugary Drinks the Previous Day, by Racial/Ethnic Group

Exhibit 4



\*All 2003-2009 differences are significant.

Source: 2003, 2009 California Health Interview Survey

In addition to income group differences, there were racial/ethnic differences in young children's soda consumption. In 2009, the proportion of soda consumption remained significantly higher among Latino children than among White and Asian children (Exhibit 4). However, the percentage of Latino children who drank soda the previous day decreased from slightly less than half in 2003 (46.7 percent) to 22.1 percent in 2009.

### Asian Children Eat Fewer Fruits and Vegetables

Children's five-a-day fruit and vegetable consumption is not directly comparable across CHIS cycles due to changes in measurement. However, data from CHIS 2007 and 2009 show that there is room for improvement in the proportion of children meeting the five-a-day goal for fruits and vegetables. Fifty-six percent of parent respondents said their child met this goal

the previous day, with no change from 2007 to 2009. There were no differences in five-a-day consumption by household income, but Asian children had a significantly lower rate (40 percent) than children in all other racial/ethnic groups.

### Do Parents Feel They Have an Influence over What Their Child Eats?

Parents living in the poorest households—those below 100 percent of the federal poverty level—were less likely than parents in all other income groups to say they have “a lot” of influence over what their child eats.<sup>16</sup> There were no differences among the other income groups.

White (90.7 percent) and African-American (93.3 percent) parents were significantly more likely to say they had “a lot” of influence than Latino (78.1 percent) and Asian (70.9 percent) parents. Parents who spoke English

*“Asian and Latino parents say they have less influence over what their child eats than other groups.”*

*“One simple way to improve nutrition among young children is to serve them fruit instead of fruit juice.”*

in the home were also more likely to report having “a lot” of influence than parents who spoke Spanish in the home.<sup>17</sup> Household income and Latino ethnicity are highly correlated for the sample of two- to five-year-olds.<sup>18</sup> This strong association between low-income status, Latino ethnicity, and perceived influence does not hold for Asian parents. Although Asians are significantly less likely than White and African-American parents to report having “a lot” of influence over what their child eats, 60 percent of Asian children live in households with incomes at or above 300 percent of the FPL.

### **Percent of Children Overweight for Age Unchanged Since 2007**

The proportion of two- to five-year-olds who were overweight for their age declined significantly between 2003 (15.5 percent) and 2007 (10.5 percent), but remained unchanged from 2007 to 2009.<sup>19</sup> Although 10 percent is still high, it is well below the national average of 25 percent that was noted in the first paragraph of this brief.

### **Discussion**

Fast food consumption remains relatively high among preschool-age children in California, with two-thirds of children between two and five eating at least one fast food meal per week. As noted above, the rate is 70 percent among Latino children. Eating more than one fast food meal per week is also associated with drinking soda, so continuing public health messages about the poor nutrition contained in these foods is important.

One of the success stories in the public health push to reduce childhood obesity is the drop in soda consumption among children ages two to five. Studies have shown a clear link between soda intake and overweight,<sup>8,20</sup> and the soda ban in California schools sent a strong policy message in this regard. Although the proportion of children drinking soda has declined significantly, Latino families merit particular attention regarding soda intake: half of all children under age five in California are Latino, and young Latino

children continue to have significantly higher levels of soda consumption than young children in all other racial/ethnic groups.

Healthful eating habits for young children can be reinforced through public health policy and legislation. For example, First 5 California, a state commission that invests in the health and school readiness of young children, promotes healthful eating and exercise for families through its Hands-On Health Express, a mobile, bilingual children’s exhibit that travels throughout the state. First 5’s Tips for Parents and Caregivers offers recommendations for establishing healthful eating and exercise habits early in life and adopting a lifestyle of good health for the whole family.<sup>21</sup>

The California Department of Health Services Latino 5 a Day Campaign and the African-American 5 a Day Campaign were designed to promote more fruit and vegetable consumption among low-income families in these populations. A similar campaign for Asian children of all income groups could draw attention to their low levels of fruit and vegetable intake. Among *all* children ages two to five in California, only 56 percent eat the recommended five servings of fruits and vegetables daily, so continued encouragement is needed across the population. One simple way to increase fruit consumption among young children is to serve them fruit instead of fruit juice. Many parents do not understand the benefits of eating fruit over drinking juice—even 100 percent fruit juice. According to the American Academy of Pediatrics, drinking too much fruit juice can contribute to childhood obesity, dental caries, and diarrhea.

The conflicting findings on the relationship between income and perceived influence seen among Latino and Asian parents indicate that other factors are likely at play regarding perceived parental influence over what a child eats. Latino children are concentrated in the lowest income categories and Asian children in the highest, yet parents of both



This publication contains data from the California Health Interview Survey (CHIS), the nation’s largest state health survey. Conducted by the UCLA Center for Health Policy Research, CHIS data give a detailed picture of the health and health care needs of California’s large and diverse population. Learn more at: [www.chis.ucla.edu](http://www.chis.ucla.edu)

groups are significantly less likely than White and African-American parents to say they have “a lot” of influence over what their child eats. Qualitative studies that explore perceived influence through focus groups and in-depth interviews could contribute to our understanding of how perceived parental influence relates to the eating habits of young children.

### Data Source and Methods

This report is based on data from the 2003, 2005, 2007, and 2009 California Health Interview Survey. Telephone interviews were conducted with the parent or guardian who was most knowledgeable about the health of the selected child age two to five years. CHIS is an ongoing, population-based telephone survey of randomly selected households. It is the largest state health survey in the nation, with household sample sizes ranging from 42,000 to 55,000. The samples of children ages two to five years range from 2,600 to 3,400. Interviews are completed in every county in the state and are conducted in English, Spanish, Chinese (Mandarin and Cantonese dialects), Korean, and Vietnamese. For this report, data were weighted to the California Department of Finance’s Population Estimates and Population Projections to produce estimates that represent the population. Unless otherwise noted, all statements in this policy brief comparing rates for one group with those of another reflect statistically significant differences ( $p < 0.05$ ). For more information on the California Health Interview Survey, please visit [www.chis.ucla.edu](http://www.chis.ucla.edu).

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### Endnotes

- 1 Ogden C and Carroll M. Prevalence of Obesity Among Children and Adolescents: United States, Trends 1963-1965 through 2007-2008. CDC National Center for Health Statistics, Division of Health and Nutrition Examination Surveys, June 2010. [http://www.cdc.gov/nchs/data/hestat/obesity\\_child\\_07\\_08/obesity\\_child\\_07\\_08.pdf](http://www.cdc.gov/nchs/data/hestat/obesity_child_07_08/obesity_child_07_08.pdf)
- 2 See how childhood obesity is measured at <http://www.cdc.gov/obesity/childhood/basic.htm>.
- 3 Ogden CL, Carroll MD, Kit BK, and Flegal KM. Prevalence of Obesity and Trends in Body Mass Index Among U.S. Children and Adolescents, 1999-2010. *Journal of the American Medical Association*, 307(5):483-490. Obesity among 2- to 5-year-olds increased from 5.0 percent to 10.4 percent between 1976-80 and 2007-08.
- 4 Mei Z, Scanlon KS, Grummer-Strawn LM, Freedman DS, Yip R, and Trowbridge FL. Increasing Prevalence of Overweight Among U.S. Low-Income Preschool Children: The Centers for Disease Control and Prevention Pediatric Nutrition Surveillance, 1983 to 1995. *Pediatrics* 1998; 101(1): E12. <http://www.ncbi.nlm.nih.gov/pubmed/9417176>
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- 6 Swartz MB and Puhl R. Childhood Obesity: A Societal Problem to Solve. *Obesity Reviews* 2003; 4(1): 57-71.
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- 9 Davis B and Carpenter C. Proximity of Fast Food Restaurants to Schools and Adolescent Obesity. *American Journal of Public Health*, March 2009; 99(3): 505-510.
- 10 Block JP, Scribner RA, and DeSalvo KB. Fast Food, Race/Ethnicity, and Income: A Geographic Analysis. *American Journal of Preventive Medicine*, October 2004; 27(3): 211-217.
- 11 Over the past three decades, the California Department of Public Health (CDPH) and its predecessor, the California Department of Health Services, have instituted a number of programs to promote healthful eating and exercise. In 1985, California launched California 5 a Day—for Better Health! This program, which became national in 1991, uses social marketing to promote consumption of at least five servings of fruits and vegetables daily, as well as exercising for a minimum of 30 minutes per day. Champions for Change and California Project LEAN help parents make healthful food choices for their families.



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- 12 Passed in 2003, Senate Bill No. 677 (K-8 Soda Ban; Ortiz) went into effect on July 1, 2004, ensuring that sodas would not be sold on elementary, middle, and junior high school campuses in California. Senate Bill No. 965 (High School Soda Ban; Escutia) passed in 2005, defined school beverage standards in California's high schools. SB 965 curbed soda and other sweetened beverage sales by requiring that *half* of the beverages sold at high schools meet the new standards by July 1, 2007, and that *all* beverages sold on high school campuses meet the standards by July 1, 2009, effectively eliminating all soda and sweetened beverage sales on that date.
- 13 Section 1596.808, California Health and Safety Code. AB 2084, Brownley, chaptered September 30, 2010.
- 14 Because these are self-reports and not observational data, the data are subject to recall and response set bias.
- 15 Parents were asked how often in the past week their child ate "fast food meals at home or at fast food restaurants, carry-out, or drive-thru."
- 16 In an effort to measure parental influence over young children's eating habits, the following question was added to the 2007 CHIS Child Survey: "How much influence do you feel you have over what foods your child eats: a lot, some, or very little?"
- 17 The percentage speaking languages other than English and Spanish was too small for reliable measurement.
- 18 Eighty-five percent of households with incomes below 100 percent of the federal poverty level (FPL) are Latino, as are 68 percent of households with incomes of 100-199 percent of the FPL. Sixty-eight percent of all Latino children ages two to five live in households with incomes below 200 percent of the FPL, and 93 percent of Spanish-speaking households are in this income category.
- 19 CHIS researchers consistently found that the majority of parents of children in this age group cannot provide an accurate height for their child on the spot. Thus, "overweight for age" was constructed using sex, age in months, and weight. For details, see <http://www.cdc.gov/nchs/about/major/nhanes/growthcharts/datafiles.htm>.
- 20 Malik VS, Schulze MB, and Hu FB. Intake of Sugar-Sweetened Beverages and Weight Gain: A Systematic Review. *American Journal of Clinical Nutrition*, August 2006; 84(2): 274-288.
- 21 First 5's website has an entire section devoted to health: <http://www.cfca.gov/parents/home.aspx>.