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Ten-Year Trends in the Health of Young Children in California: 2003 to 2011-2012

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“There have been significant improvements in health coverage, dental care, and parental involvement.”

SUMMARY: This policy brief presents 10-year trends in several key health and wellness indicators for children ages 0-5 in California. These indicators are health insurance coverage; source of medical care; dental visits; overweight-for-age; parents singing and reading to their child and going out with the child; and preschool attendance. The data are from the California Health Interview Survey (CHIS), the largest state health survey in the U.S. The survey gathers information on a range of health behaviors and health conditions, as well as on access to health care among children, adolescents, and adults in California. A number of these key indicators are compared by income and by racial/ethnic group.

This policy brief covers the years 2003 to 2011-2012, a period in which public health efforts

for children focused on childhood obesity and improved nutrition, access to low-cost and free dental services, and the expansion of children's health insurance programs. CHIS data show improvement in health insurance coverage and access to dental services for low-income children over the 10-year period. However, the percentage of children who were overweight for their age remained unchanged among those in households with incomes below 200 percent of the federal poverty level (FPL). In terms of measures associated with school readiness, preschool attendance dropped overall between 2003 and 2011-2012, but the proportions of parents who sang, read, and went out with their children every day increased significantly during the 10-year period.

Since the passage of the California Children and Families Act (1998), California has committed to improving the health and school readiness of poor and low-income children ages 0-5. Health and social well-being are central to school readiness and the ability of children to thrive and develop into happy, productive, engaged adults. Studies indicate that social and economic factors have a tremendous impact on the health and well-being of very young children.^{1,2} Using data from the California Health Interview Survey (CHIS), an ongoing statewide health survey,

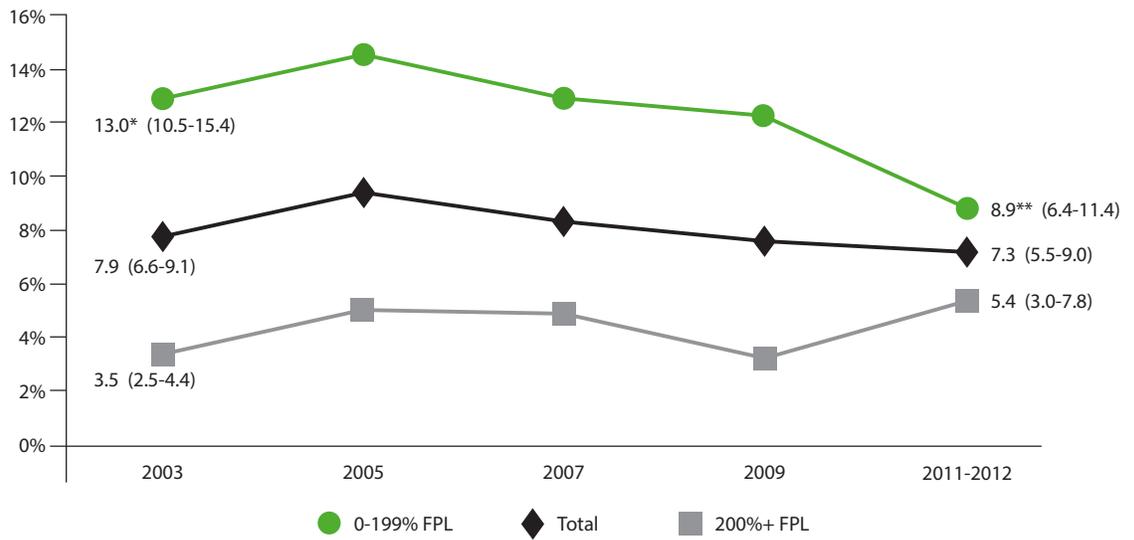
this brief provides findings on the health and school readiness of California's young children for the period from 2003 to 2011-2012. It follows an earlier policy brief using CHIS data on trends in child health from 2001 to 2005.³ Child health indicators were examined for overall trends and differences by income and by California's four main racial/ethnic groups: Latinos, whites, Asians, and African-Americans.⁴

The current findings show a mixed picture in which income disparities have been



Exhibit 1

Uninsured All or Part of Past 12 Months by Income, Children Ages 0-5, California 2003-2011/12



* Significantly higher than rate for 200%+ FPL.

** Significantly lower than 2003 rate but higher than rate for 200%+ FPL.

Source: 2003, 2005, 2007, 2009, 2011-2012 California Health Interview Surveys

“Low-income children were more likely to have coverage by 2012.”

eliminated in some areas, such as access to dental care and health insurance coverage, while remaining unchanged in others, such as overweight-for-age. Trends among California’s main racial/ethnic groups also held constant for most of the indicators included in this policy brief.

Examining trends over the 10-year period between 2003 and 2011-2012 provides data that can help guide policy and planning efforts to best meet the health and school readiness needs of young children in California.

Uninsured Rate Dropped Among Low-Income Young Children

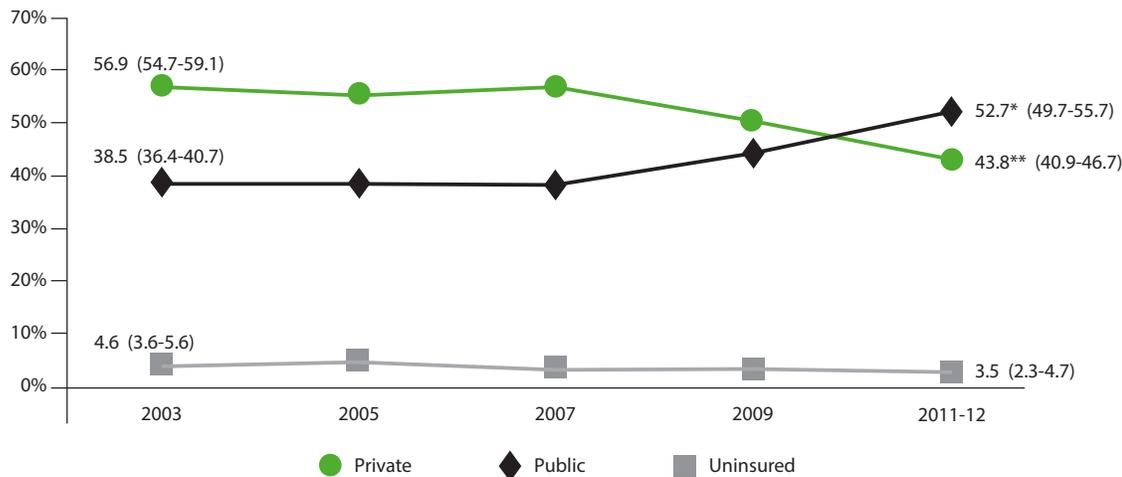
Due to a lack of employment-based coverage and the high cost of buying insurance, low-income households have historically had lower rates of health insurance coverage than middle- and upper-income households.^{5, 6} To examine both the extent and types of insurance coverage among young children in California, this policy brief shows two rates: (1) the percentage of children who were uninsured for all or part of the past 12 months by income category (Exhibit 1),

and (2) the percentage of children who were covered by public or private insurance or who were uninsured at the time of the interview (Exhibit 2).

In 2003, approximately one in twelve children ages 0-5 in California lacked health insurance for all or part of the preceding 12 months (7.9 percent; Exhibit 1). While this overall rate remained fairly flat from 2003 to 2011-2012 (7.3 percent in 2011-2012; Exhibit 1), income-based disparities eased. In 2003, children in households with incomes below 200 percent of the federal poverty level (FPL) were significantly more likely to have been uninsured for all or part of the past 12 months than children in higher-income households (0-199 percent FPL=13 percent; 200 percent and above FPL=3.5 percent). By 2011-2012, this income disparity was no longer significant (0-199 percent FPL=8.9 percent; 200 percent FPL and above=5.4 percent), due to a drop in the percentage of uninsured children in the low-income group between 2003 (13.0 percent) and 2011-2012 (8.9 percent; Exhibit 1).

Type of Health Insurance Coverage, Children Ages 0-5, California 2003-2011/12

Exhibit 2



* 2011-2012 public insurance rate is significantly higher than public insurance rate in 2003 among 0-5 yrs.

Source: 2003, 2005, 2007, 2009, 2011-2012 California Health Interview Surveys

** 2011-2012 private insurance rate is significantly lower than private insurance rate in 2003 among 0-5 yrs.

Public Coverage Increases as Private Health Insurance Declines

In this policy brief, “public” coverage refers to enrollment in the Medi-Cal or Healthy Families programs, and “private” health insurance means employer-based or individually purchased plans.

Trend data for public and private health insurance among young children in California present a stark contrast between 2003 and 2011-2012. As shown in Exhibit 2, the trend lines crossed between 2009 and 2011-2012. In 2003, more than half (56.9 percent) of children ages 0-5 had private health insurance; by 2011-2012, that percentage had dropped to 43.8 percent (Exhibit 2). During this period, the proportion of young children with public coverage increased significantly, from 38.5 percent in 2003 to 52.7 percent in 2011-2012 (Exhibit 2).

Overall, the proportion of young children who were uninsured at the time of the CHIS interview decreased slightly during the 10-year period, but the decline was not statistically significant (from 4.6 percent in 2003 to 3.5 percent in 2011-2012; Exhibit 2).

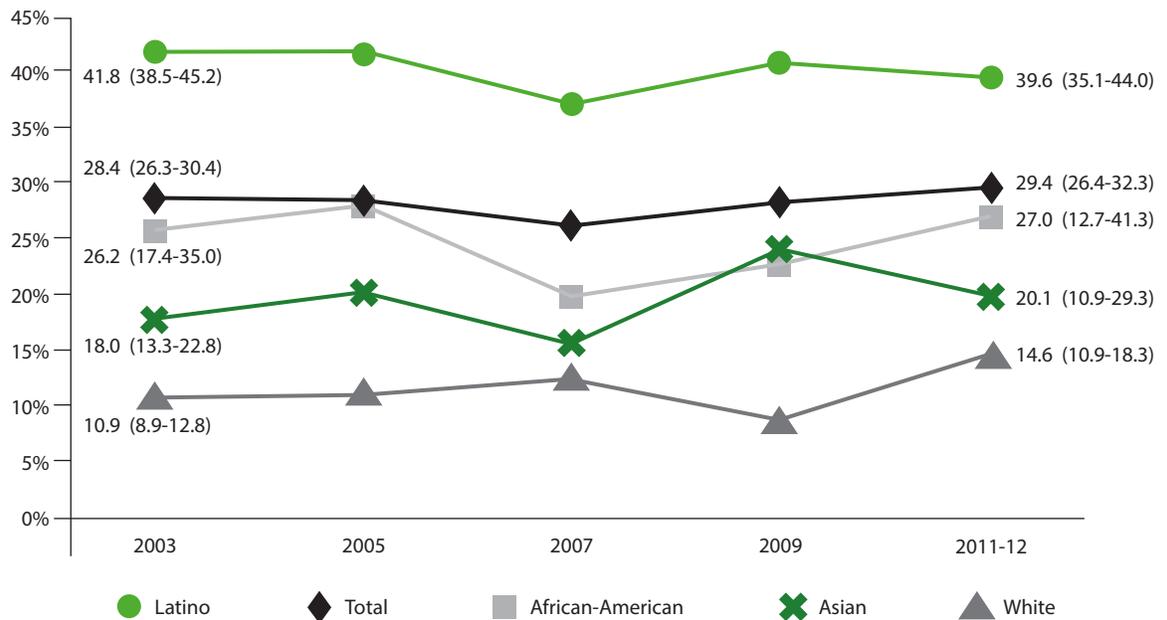
Disparities in Type of Usual Source of Medical Care

The majority of children ages 0-5 in California had a usual source of medical care during the period from 2003 to 2011-2012 (97 percent). More than two-thirds of them went to private providers, which includes private doctors’ offices and health maintenance organizations (HMOs), and about 30 percent went to public providers (e.g., community clinics and hospitals), according to parent reports.

“Private health coverage dropped significantly during the time period.”

Exhibit 3

Public Type of Usual Source of Care by Race/Ethnicity, Children Ages 0-5, California 2003-2011/12



Source: 2003, 2005, 2007, 2009, 2011-2012 California Health Interview Surveys

“Latino children were more likely to have a public usual source of care.”

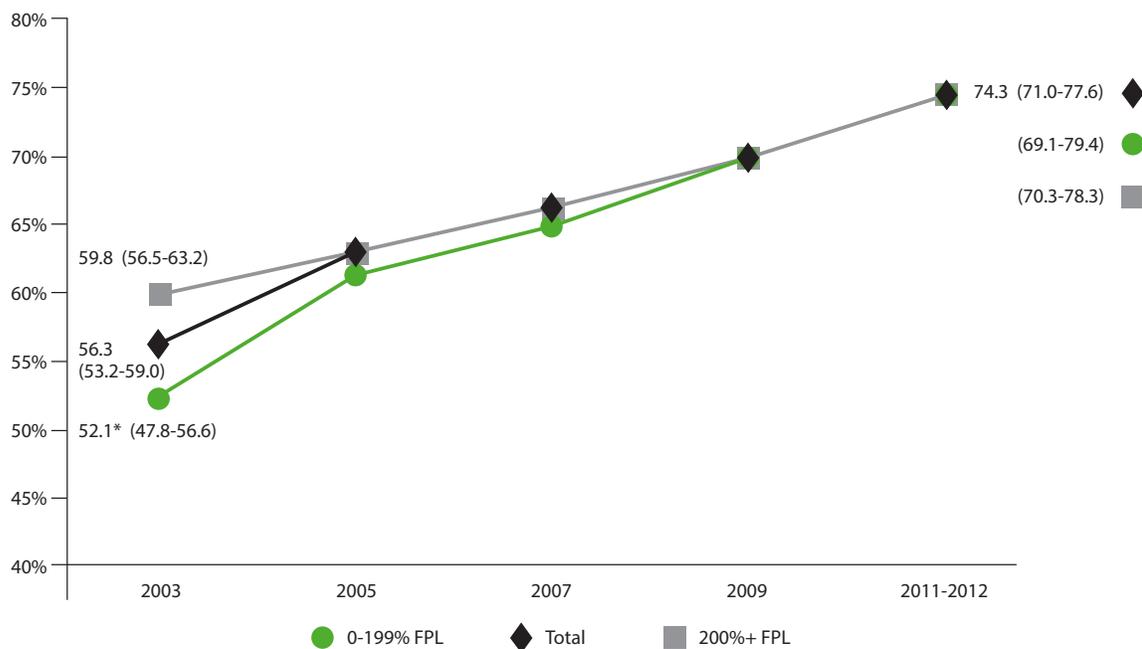
However, having a public or private usual source of care differed by racial/ethnic group. Among young Latino children, 41.8 percent had a public usual source of care in 2011-2012, while white (14.6 percent) and Asian children (20.1 percent) were much less likely to have a public usual source of care (Exhibit 3). The public/private rates for Latino and Asian children were consistent during the 10-year period, but among white children there was a significant decrease in the proportion who had a private usual source of care, from 87.4 percent in 2003 to 82.1 percent in 2011-2012 (data not shown). Because of the small sample size of white children who had a public usual source of care, the increase from 10.9 percent to 14.6 percent during this period did not reach statistical significance.

Income Differences in Dental Visits Greatly Reduced

Tooth decay is one of the most common childhood problems in the U.S. It can lead to other conditions, such as ear and sinus infections, and it can affect concentration and school performance.⁷ A healthy diet, good oral hygiene, and regular dental visits for cleaning and treatment can help prevent tooth decay. Dentists and pediatricians recommend that children visit a dentist at least once a year after getting their first tooth.

Visited a Dentist Within the Past 12 Months by Household Income, Children Ages 2-5, California 2003-2011/12

Exhibit 4



* 0-199% FPL significantly lower than 200%+ FPL

Source: 2003, 2005, 2007, 2009, 2011-2012 California Health Interview Surveys

According to parent reports in CHIS, the proportion of children ages 2-5 who had visited a dentist in the past year increased significantly between 2003 and 2011-2012, from 56.3 percent to 74.3 percent (Exhibit 4). One of the most positive aspects of this trend was the rise in dental care utilization among children living in households with incomes below 200 percent of the federal poverty level (FPL). In 2003, these children were significantly less likely to have visited a dentist in the past year (52.1 percent) than children with household incomes at or above 200 percent FPL (59.8 percent). By 2011-2012, there was no difference between the two income groups, with 74.3 percent of both groups reporting at least one dental visit in the previous 12 months (Exhibit 4). Even when comparing past-year dental visits among children in the poorest households (below 100 percent FPL) with those in the 300+ percent FPL group, we found no significant differences (data not shown).

These trends suggest that efforts over the past decade to improve dental health and access

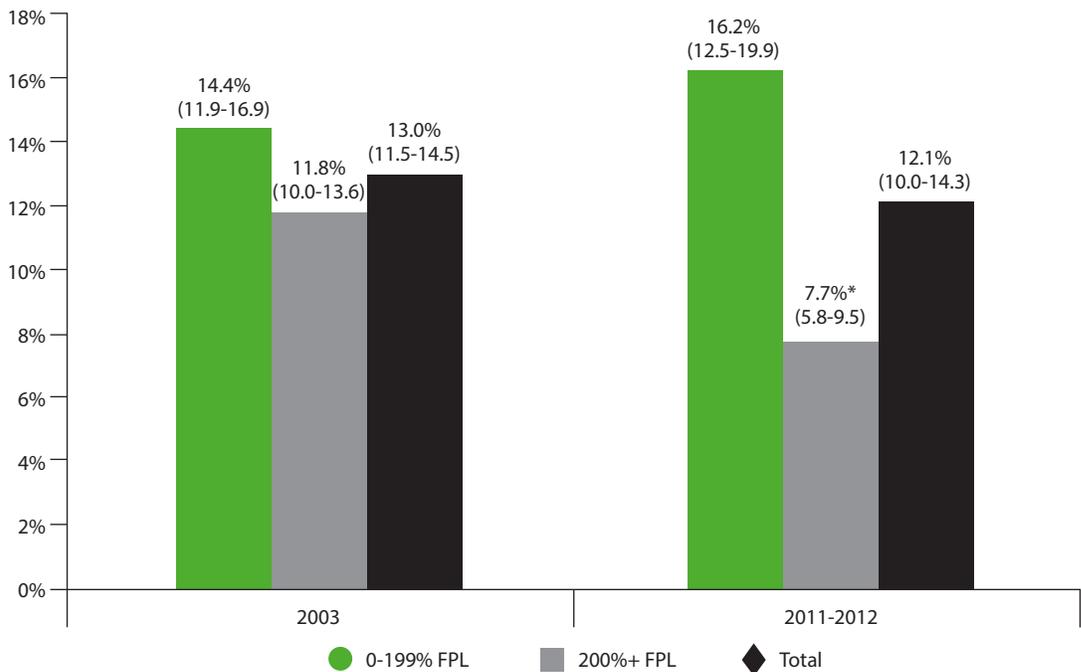
to dental care among children have paid off. First 5 California funded a \$7 million program between 2004 and 2008 called “Healthy Smiles,” which provided oral health training and education to more than 18,000 dental and medical providers at Women, Infants and Children (WIC), Head Start, and other child care programs and facilities.

An evaluation of the program found significant improvements in dental services for children, as well as in parents’ attention to brushing or wiping young children’s teeth. There was also a significant increase in the percentage of primary care providers who referred their pregnant patients to a dentist. Increased awareness of Medi-Cal and Healthy Families dental benefits was also an aim of this and other programs, particularly at the county level. While no causal effect in the population can be assigned to these programs, the steady increase in dental care utilization over the 10-year period measured with CHIS data paralleled the efforts to improve access to dental services.

“The proportion of young children who visited a dentist in the past year increased from 56 percent to 74 percent.”

Exhibit 5

Percent Reporting Overweight by Household Income, Children Ages 0-5, California 2003 and 2011-12



Note: "Overweight" refers to children whose weight is above the 95th percentile for their age and gender on national growth charts.

*Significantly lower than the 2003 rate for the 200%+ FPL group.
Source: 2003 and 2011-2012 California Health Interview Survey

“Overweight-for-age decreased significantly among children in wealthier households, but not among those in low-income households.”

Childhood Overweight-for-Age Rates Remained Constant in Most Groups

Children who are overweight-for-age (subsequently referred to as overweight) at young ages are more likely to develop asthma, diabetes, sleep apnea, and other health problems than children who are not overweight.⁸ Preventing childhood obesity is a public health priority nationwide and in California. In 2010, Congress passed the Healthy, Hunger-Free Kids Act (PL 111-296), which set policy for the U.S. Department of Agriculture’s (USDA) core child nutrition programs, including school lunch programs and the Women, Infants and Children (WIC) program.⁹ The goal was to reduce the amounts of sugar, fat, and salt in the foods available through these programs.

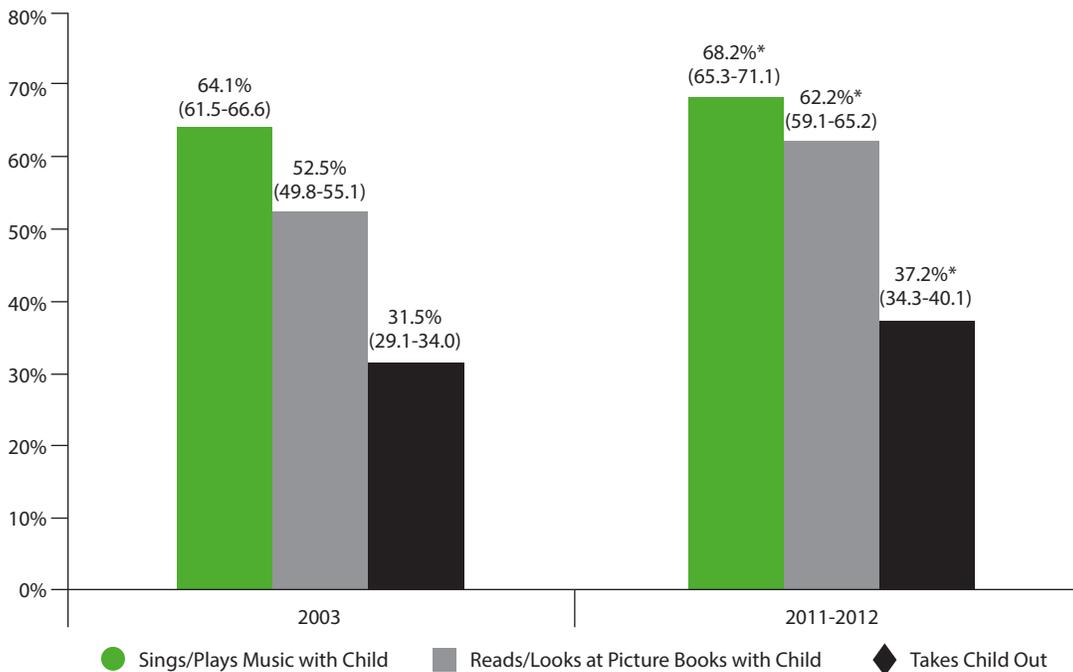
In California, the first healthy eating campaign was launched in 1985 with the “California 5 a Day—for Better Health!” program. In 2003, California became the first state in the nation to ban soda in elementary schools.¹⁰

CHIS has tracked overweight-for-age rates among children since 2001. Because of the inaccuracy of parental reports of children’s height, CHIS uses the child’s sex, age (in months), and weight to determine whether the child is overweight. A child is considered overweight if he or she is above the ninety-fifth percentile for age and gender on national growth charts.¹¹ Unlike the body mass index (BMI), this indicator does not incorporate height.

The prevalence of overweight among children ages 0-5 in California dropped slightly between 2001 and 2005, from 14 percent to 12 percent. CHIS data from 2003 to 2011-2012 show that the overall rate remained virtually unchanged (Exhibit 5).³ However, there was a significant decrease in overweight-for-age among children living in households with incomes at or above 200 percent FPL. The proportion of overweight children ages 0-5 in this group dropped from 11.8 percent in 2003 to 7.7 percent in 2011-2012 (Exhibit 5). Among children

Parent Involvement: Singing, Reading, or Going Out with Child Every Day, Children Ages 0-5, California 2003-2011/12

Exhibit 6



* 2011-2012 significantly higher than 2003 for all three variables

Source: 2003, 2005, 2007, 2009, 2011-2012 California Health Interview Surveys

living in households with incomes below 200 percent FPL, there was no statistically significant change during the 10-year period (14.4 percent in 2003 and 16.2 percent in 2011-2012). Changes in the proportions of Asian, Latino, white, and African-American children who were overweight were also not significant during this time period.

Research based on CHIS data has also explored the eating habits of young children and how those habits may contribute to overweight and obesity.^{12, 13} While soda consumption has declined significantly among young children in California over the past 10 years, only 57 percent of children ages two to five eat five servings of fruits and vegetables per day, and 60 percent eat at least one fast food meal per week. California has not witnessed the same decline in obesity among young children that has occurred nationally. According to data from the National Health and Nutrition Examination Survey (NHANES), the national prevalence of overweight among children two to five

years old decreased significantly between 2003-2004 and 2011-2012, from 13.9 percent to 8.4 percent, while California's rate remained flat at 12 percent.¹⁴

Parents Are Singing, Reading, and Going Out More with Their Young Children

In 2014, First 5 California started a media campaign called "Talk, Read, Sing," which encourages parents to interact with their young children to promote brain development and emotional and social growth. The First 5 California website has a range of related activities that parents can do with their children.¹⁵

Since 2003, CHIS has asked parents a set of questions about how often they read or look at picture books, play music, or sing songs with their children or take their child out somewhere, such as to a park, store, or playground. Exhibit 6 shows the percentages of parents who reported doing these activities every day in 2003 and in 2011-2012. Singing or playing music with their child was the

“Sixty-two percent of parents said they read or looked at picture books with their children in 2011–2012, a 10 percentage point increase since 2003.”

“In 2012, only 30 percent of three- and four-year-olds were enrolled in Head Start or another preschool program for 10 or more hours per week.”

most common of the three activities, followed by reading or looking at picture books and taking the child out (Exhibit 6).

Over the 10-year period, the proportions for all three activities increased significantly. In 2003, 64.1 percent of parents reported singing or playing music with their child every day; by 2011-2012, that figure had increased to 68.2 percent. About half (52.5 percent) of parents in 2003 said they had read or looked at picture books with their child every day; that proportion had risen to 62.2 percent by 2011-2012. In 2003, one-third (31.5 percent) of the parents surveyed reported that they took their child out somewhere every day; in 2011-2012, 37.2 percent of parents reported doing so.

In addition to promoting brain and social development, the actions of talking, reading, and singing with young children help prepare them for school, a top priority of First 5 California. The organization's investments in the “Talk, Read, Sing” campaign and in preschool programs reflect the importance that First 5 state and county commissions place on giving all children the ability to begin school ready to learn.

Preschool Enrollment Declines

Preschool programs are designed to introduce children to a fun learning environment that helps prepare them for kindergarten. Since 2001, CHIS has asked parents whether their child receives child care for 10 or more hours per week from “a Head Start or state preschool program, or from some other preschool or nursery school.” Grant and Kurosky reported CHIS data showing that between 2001 and 2003, the proportion of three- and four-year-olds who were enrolled in Head Start or another type of preschool for 10 or more hours per week increased from 25 percent to 37 percent, then stayed the same from 2003 to 2005.³

In 2011-2012, only 30.3 percent of three- and four-year-olds were enrolled in Head Start or another preschool program for 10 or

more hours per week, a significant decrease from 2003. The income and racial/ethnic differences that Grant and Kurosky found earlier remained consistent. Children living in households with incomes below 200 percent FPL were less likely to be enrolled in preschool, including Head Start (19.5 percent), than those in households with incomes at or above 200 percent FPL (42.7 percent) (data not shown). Latino children continued to have the lowest rate of enrollment (20.5 percent), but there was a trend toward higher enrollment among Asian children (32.6 percent in 2003 and 53.8 percent in 2011-2012). White and African-American children had similar preschool attendance rates in 2003 (41.3 percent and 38.3 percent, respectively) and 2011-2012 (data not shown). Because the preschool analyses were limited to three- and four-year-olds, the sample sizes were too small for measuring statistical differences other than the overall trend. However, the decrease in preschool enrollment among poor children during the 10-year period (from 27.1 percent to 19.5 percent) nearly reached statistical significance ($p < .057$).

Discussion and Recommendations

The findings presented in this policy brief point to several areas that merit continued attention as we strive to improve health and school readiness among young children. A summary table highlighting the main findings on trends related to young children's health in California is shown on page 9.

Although health insurance coverage has increased overall among young children in California, continued monitoring of uninsured rates and of disparities within particular communities and income groups will remain important. In addition, tracking demographic trends in usual sources of care among young children will help in state and local planning and policy efforts.

Closing the income gap in the percent of children who had at least one dental visit in the past 12 months was a significant



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

achievement over the 10-year period. Going forward, the focus should be on increasing the rate among all income groups.

Preventing obesity and improving eating habits have been at the center of public health efforts in California for more than two decades, yet overweight rates among young children are now higher in California than the national average, and the rate of overweight-for-age did not improve during the 10-year survey period. CHIS data show that low-income and Latino children are more likely to be overweight than other children. Renewed efforts are clearly required to reduce these disparities.

The measures of parental actions that support school readiness—playing music, reading, and going out with the child—showed significant increases over the 10-year period. First 5 campaigns such as “Talk. Read. Sing.” should continue to promote parental involvement with young children to maximize early brain development.

Preschool enrollment rates declined significantly over the 10-year period. The data show a trend toward decreased enrollment among low-income children, many of whom may qualify for Head Start and other state programs. Future research could help us to understand why enrollment among low-income children is declining. It is important

that policymakers in early childhood education and health continue to support access to quality preschools for all young children.

Data Source and Methods

Data for this policy brief are drawn from the 2003 to 2011-2012 California Health Interview Surveys (CHIS 2003, 2005, 2007, 2009, 2011-2012), a random-digit-dial telephone survey of the California population living in households and the largest statewide health survey in the nation. Sampling tolerances at the 95 percent confidence level were used to calculate statistically significant differences between groups. All differences between groups reported in the policy brief are statistically different at $p < .05$. Determination of adequate sample size to report data was based on analysis of the coefficient of variation (CV), using a criterion of 30.

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| Indicator | 2003 | 2011-2012 | Change |
|--|-------|-----------|--------|
| Children Without Health Insurance Any Time Past 12 Months | 7.9% | 7.3% | No |
| Low-Income Children Without Health Insurance Any Time Past 12 Months | 13.0% | 8.9% | ↓ |
| Children with Public Health Insurance | 38.5% | 52.7% | ↑ |
| Children with Private Health Insurance | 56.9% | 43.8% | ↓ |
| Children Who Had at Least One Dental Visit Past 12 Months (Ages 2-5) | 56.3% | 74.3% | ↑ |
| Low-Income Children with at Least One Dental Visit Past 12 Months (Ages 2-5) | 52.1% | 74.3% | ↑ |
| Middle- & Upper-Income Children with at Least One Dental Visit Past 12 Months (Ages 2-5) | 59.8% | 74.3% | ↑ |
| Children Who Are Overweight for Age | 13.0% | 12.1% | No |
| Low-Income Children Who Are Overweight for Age | 14.4% | 16.2% | No |
| Middle- & Upper-Income Children Who Are Overweight for Age | 11.8% | 7.7% | ↓ |
| Family Member Sings or Plays Music with Child Every Day | 64.1% | 68.2% | ↑ |
| Family Member Reads to Child Every Day | 52.5% | 62.2% | ↑ |
| Family Member Takes Child Out Every Day | 31.5% | 37.2% | ↑ |

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The analyses, interpretations, conclusions, and views expressed in this policy brief are those of the authors and do not necessarily represent the UCLA Center for Health Policy Research, the Regents of the University of California, or collaborating organizations or funders.

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Endnotes

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