Description of Data and Analysis for *Covering Kids & Families*
Back-to-School Campaign

Data Source and Sample

This analysis uses the National Health Interview Survey (NHIS) from 2002 to examine access to care for children with and without insurance. The NHIS is a continuous in-person household survey sponsored by the National Center for Health Statistics. The sample, which includes 40,000 households and approximately 93,000 persons, is nationally representative of the civilian, non-institutionalized U.S. population. The NHIS collects information on demographic characteristics, family income, insurance coverage, health status, access to care and use of health care services. More detailed questions about access to care, use of services, and the presence of acute and chronic health conditions are asked of a child in each family. A knowledgeable adult serves as the respondent for minor children.[1] Data were analyzed for children age 0 to 17 years on the 2002 NHIS sample child file. The sample size is 12,500 children.

Access Measures

The analysis focuses on three indicators that access to health care may have been compromised. These measures are based on responses to questions on the NHIS.

- Child Did Not Receive Well-Child Checkup During Previous Year: The NHIS collects information on whether the child had a checkup in the past 12 months. The analysis focuses on children who *did not* receive a checkup.

- Child Lacks Usual Source of Care (USOC), USOC is Emergency Department: The NHIS captures whether a child is reported to have a usual source of health care when they are sick, and the type of provider. The various types of USOC providers reported on the NHIS were grouped to create indicators for private (physician office, HMO), public (clinic or hospital outpatient department), and other settings (hospital emergency department, other). The analysis focuses on the proportion of children who lack a usual source of care entirely, and the proportion of children with a usual source of care that are reported to use a hospital emergency department.

- Reported Delay in Receiving Care or Unmet Need for Care Due to Cost: The NHIS collects information on whether medical care was delayed due to cost, and whether needed medical care, prescription drugs, mental health care, vision care, or dental care were forgone entirely due to cost. This analysis focuses on medical care and prescription drugs.[2] Unmet medical care need is defined broadly, encompassing both delay in seeking care and needed medical care foregone.

[1] As with any household survey, the information captured in the NHIS are based on self report and may be subject to various types of reporting error.
[2] By limiting the focus to unmet medical care and prescription drug needs, the estimated levels of unmet need overall and the gap between insured and uninsured children may be attenuated.

Identifying Children With and Without Health Insurance

The analysis compares children with and without health insurance. The NHIS collects information on the child's health insurance at the time of the survey, asking whether they had any of a variety of public or private insurance plans, or were without insurance other than plans that only covered a single service. Children with any general medical insurance were identified as having insurance; children who were reported to lack insurance other than a plan that covers only a single service were identified as uninsured.

This analysis compares children with and without insurance based on measures of insurance coverage available in the NHIS. The NHIS estimates that on average, 10.1 percent or 7.4 million children were uninsured during 2002. This NHIS estimate is lower than the estimate of 8.5 million uninsured children from the March Supplement of the Current Population Survey (CPS). At this time, researchers are uncertain as to why the NHIS and CPS estimates of uninsured children vary. The surveys differ in the wording of the questions concerning insurance coverage and in the time frame covered (current versus full year), but not necessarily in ways that are consistent with the differences in the estimates. The CKF Back-to-School Campaign uses the uninsured estimate from the CPS due to its widespread use in policy analysis. The NHIS is used because it has valuable information on health status and access to care that is not available on the CPS. Because of the differences in measurement, estimates of access to care from the NHIS should not be applied to the number of uninsured children reported by the CPS.

Grouping Children According to Relevant Characteristics

Sample proportions for the three groups of access measures are estimated and compared for all insured and uninsured children. In addition, children are grouped according to selected demographic and health characteristics:

- Ethnicity (white non-Hispanic, black non-Hispanic, Hispanic, other);
- Family income relative to the federal poverty level (FPL)[3] grouped into low income (below 200 % FPL) and higher income (200 % +);
- Age (0-1, 2-6, 7-13, 14-17 years);
- Health status. Children were grouped based on whether they were reported to have asthma currently.

Analysis

For each outcome measure, we compute the sample proportion for children overall, and then for children stratified by age, ethnicity, income, and the presence of asthma. For each stratum, the hypothesis is tested that uninsured children face greater

[3] We use imputed poverty percent values provided by the NCHS for those observations without valid reported income.

access problems than children with insurance.[4] Estimates for insured and uninsured children in each stratum are compared using t-tests, with conventional levels of significance ($p<=.05$).[5] All analyses are performed using Stata software. Sample proportions are weighted to national totals. Statistical comparisons take into account the complex sample design of the NHIS.

[4] Insurance status is captured at the time of the survey, thus it may not reflect the child's insurance status over the full 12 month period captured in two of the access measures, "lacks a well child checkup" and "reports unmet need." The potential discordance between measured insurance and access may attenuate the estimated differences in access between insured and uninsured children.

[5] The comparisons reflect the characteristics of the insured and uninsured populations. These comparisons do not adjust for demographic differences in characteristics of children in each group, that may have independent effects on access to care. The analysis also does not address selection of children into different insurance groups.