Annual Report on Health Care for Children and Youth in the United States: Trends in Racial/Ethnic, Income, and Insurance Disparities Over Time, 2002–2009

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ABSTRACT

OBJECTIVE: To examine trends in children's health access, utilization, and expenditures over time (2002–2009) by race/ethnicity, income, and insurance status/expected payer.
METHODS: Data include a nationally representative random sample of children in the United States in 2002–2009 from the Medical Expenditure Panel Survey (MEPS) and a nationwide sample of pediatric hospitalizations in 2005 and 2009 from the Healthcare Cost and Utilization Project (HCUP).
RESULTS: The percentage of children with private insurance coverage declined from 65.3% in 2002 to 60.6% in 2009. At the same time, the percentage of publicly insured children increased from 27.0% in 2002 to 33.1% in 2009. Fewer children reported being uninsured in 2009 (6.3%) compared to 2002 (7.7%). The most significant progress was for Hispanic children, for whom the percentage of uninsured dropped from 15.0% in 2002 to 10.3% in 2009. The uninsured were consistently the least likely to have access to a usual source of care, and this disparity remained unchanged in 2009. Non-Hispanic whites were most likely to report a usual source of care in both 2002 and 2009. The percentage of children with a doctor visit improved for whites and Hispanics (2009 vs 2002). In contrast, black children saw no improvement during this time period. Between 2002 and 2009, children's average total health care expenditures increased from $1294 to $1914. Average total expenditures nearly doubled between 2002 and 2009 for white children with private health insurance. Among infants, hospitalizations for pneumonia decreased in absolute number (41,000 to 34,000) and as a share of discharges (0.8% to 0.7%). Fluid and electrolyte disorders also decreased over time. Influenza appeared only in 2009 in the list of top 15 diagnoses with 11,000 hospitalization cases. For children aged 1 to 17, asthma hospitalization increased in absolute number (from 119,000 to 134,000) and share of discharges (6.6% to 7.6%). Skin infections appeared in the top 15 categories in 2009, with 57,000 cases (3.3% of total).
CONCLUSIONS: Despite significant improvement in insurance coverage, disparities by race/ethnicity and income persist in access to and use of care. Hispanic children experienced progress in a number of measures, while black children did not. Because racial/ethnic and socioeconomic disparities are often reported as single cross-sectional studies, our approach is innovative and improves on prior studies by examining population trends during the time period 2002–2009. Our study sheds light on children's disparities during the most recent economic crisis.

KEYWORDS: children's health; children's health care; community income; disparities; HCUP; health care access; health care trends; income; insurance; MEPS; race/ethnicity; utilization

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WHAT'S NEW

This annual report is the 10th in a series of descriptive reports summarizing various dimensions of health care for children and youth in the United States.

THIS REPORT IS the 10th in an annual series of descriptive reports summarizing various dimensions of health care for children and youth in this country.[1–9] The last 6 reports have focused on a central theme to generate specific discussion and policy attention as well as prompt hypothesis-driven research to better understand the patterns identified in each report. This year, we extend this idea to focus on trends in children's health insurance coverage; their implications for changes in access to care, use, and expenditures; and how these trends vary by race/ethnicity, insurance, and income subgroups.

As in past reports in *Ambulatory Pediatrics* and *Academic Pediatrics,* we base our analyses on 2 leading national data sets supported by the Agency for Healthcare Research and

Quality: the 2002–2009 Medical Expenditure Panel Survey (MEPS) and the 2005 and 2009 reports of the Healthcare Cost and Utilization Project (HCUP). These 2 complementary data sources provide a broad overview of recent trends in children's health care outcomes. Consistent with previous years, we also provide the standard updated tables on overall insurance coverage, utilization, and expenditures in Appendix A (data from MEPS) and Appendix B (data from HCUP) (appendices available online at http://www.academicpedsjnl.net).

Over the past 50 years, children have experienced substantial improvements in health insurance coverage, beginning with the passage of Medicaid in 1965, its subsequent expansions, and finally the passage of the Balanced Budget Act of 1997, which created the State Children's Insurance Program, a program that has also undergone expansion and reauthorization.[10,11] In our fourth report, in which we previously examined trends in insurance coverage, 10.4% of children were noted to be uninsured in 1996 in MEPS.[4] By 2009, this had decreased to 8%.[12] Thus, one would expect to see decreases in the adverse effects associated with lack of insurance.[13]

However, the improvement in overall insurance coverage does not reflect the dynamic picture in types of coverage and their potential effect on use of services. First, there remain substantial differences in access to insurance for children by age, race/ethnicity, poverty, and geographic area, with older children and youth, Hispanics, and those in certain states being more likely to be uninsured.[13] Second, there has been a shift in the type of coverage for children from private insurance to public forms of insurance.[10] Eligibility requirements and access to specific services are known to vary by state, such that even the presence of public insurance programs does not guarantee coverage or coverage of all needed services.[14] In addition, changes in family circumstances may result in shifts between public and private programs or gaps in coverage.[15] Changes in private coverage have also affected access to care with an increase in families covered by high-deductible plans, placing families at risk for paying more out of pocket for care.[15] Consideration of these changes suggests that children may experience gaps in coverage and/or be underinsured for specific types of care, conditions known to be sensitive to preventive care, lack of usual source of care (USC), and care foregone.[13,16]

To further examine these changes, we examined the trends in health insurance coverage by race/ethnicity and income, and explored the potential effect of any changes on access, utilization, and expenditures. Although our analysis is descriptive, it is structured by several key research questions:

1. Has insurance coverage changed for children over time?
2. Has children's access to health care increased or decreased over time?
3. Has children's health care utilization increased or decreased over time?
4. Health care costs have increased dramatically in recent years. How have costs changed over time for children?
5. Have out-of-pocket health care expenditures for children increased or decreased over time?
6. Have hospital discharges for children increased or decreased over time? Have these trends been similar for subpopulations according to community income, race/ethnicity, and expected payer?
7. Did the leading diagnostic categories for children's hospitalizations change between 2005 and 2009?
8. Has the number of potentially preventable hospital admissions among children increased or decreased over time in association with the economic decline? Are there differences between acute and chronic conditions?

For each of these trends, we explore differences by race/ethnicity, income, and type of insurance coverage.

METHODS

DATA SOURCES

In this report, as in previous reports, we use 2 complementary Agency for Healthcare Research Quality (AHRQ)-sponsored data sources: MEPS and HCUP. The MEPS is an ongoing nationally representative survey of US civilian households and provides estimates of health care use, access, and expenditures for individuals over a 2-year period.[17] The HCUP data include a census of hospital discharge billing records collected from 40 states; the data are able to provide the hospital and reimbursement perspective of health care quality in terms of effectiveness and patient safety (eg, rates of hospital admissions for specific conditions per population or rates of specific events per procedures).[18,19]

MEDICAL EXPENDITURE PANEL SURVEY

In this report, we pool individual level cross-sectional data from the MEPS household component files for the years 2002, 2003, 2004, 2005, 2006, 2007, 2008, and 2009. The majority of data come from the full-year consolidated files for these years (HC-070, HC-079, HC-089, HC-097, HC-105, HC-113, HC-121, and HC-129). The MEPS sample for this analysis includes children aged 0 to 17. Our estimates represent health care access and utilization for children during the time period 2002–2009.

HEALTHCARE COST AND UTILIZATION PROJECT

HCUP is a federal-state-industry partnership of state data organizations, hospital associations, private data organizations, and AHRQ. The state and industry organizations collect billing data directly from hospitals and voluntarily provide it to HCUP for uniform formatting and possible distribution. Each year, HCUP produces a Nationwide Inpatient Sample (NIS) from statewide discharge databases (44 states in 2009). The NIS is designed to be a stratified national sample of 20% of nonfederal, short-term hospitals. There are approximately 1000 hospitals containing 8 million hospital discharges. For this study, enhanced versions of the NIS were constructed for 2005 and 2009 to permit more accurate breakdowns by race/ethnicity of patients. Hospitals in states with relatively incomplete