CHIRI
The Child Health Insurance Research Initiative

ISSUE BRIEF No. 2
JUNE 2003

Children's Dental Care Access in Medicaid: The Role of Medical Care Use and Dentist Participation

Tooth decay is one of the most preventable childhood diseases, yet dental care remains the most prevalent unmet health care need for children in the United States. Low-income children are more likely to have dental disease than children in higher income families and are less likely to have regular dental care. Poor oral health can have a significant impact on children's overall health, growth and development, and learning. In fact, children's dental-related illnesses are responsible for more than 51 million lost school hours each year.

To address the significant disparities in low-income children's oral health status and dental care use, many States have enhanced program delivery efforts in Medicaid and offered dental services through optional expansions under the State Children's Health Insurance Program (SCHIP). This Child Health Insurance Research Initiative (CHIRI™) Issue Brief reports on children's dental care use in the Alabama and Georgia Medicaid programs before these States' efforts to improve dentist participation in Medicaid. Information about children's dental care use in Medicaid can help inform States when they assess the impact of dental program enhancements and make critical decisions about public insurance programs. Researchers found that:

- Less than 40 percent of Medicaid-enrolled children in the study States received dental care during the study period.
- Approximately half of the children who had dental care received intensive dental services, such as emergency and restorative care; nearly all received preventive dental care.
- Children who received medical care were more likely to receive dental care than those who received no medical care.
- The number of dentists participating in Medicaid had some effect on the likelihood of children receiving dental care.

AHRQ The David and Lucile Packard Foundation U.S. Department of Health and Human Services HRSA Health Resources and Services Administration

CHIRI™ is funded by the Agency for Healthcare Research and Quality, The David and Lucile Packard Foundation, and the Health Resources and Services Administration.

"Many Medicaid-enrolled children who accessed dental benefits used a full range of services."

WHAT WAS LEARNED

Researchers analyzed a year's worth of Medicaid dental claims data for children in Alabama (1999) and Georgia (1997), prior to these States' efforts to increase dentist participation in Medicaid. (See text box on page 3.) This CHIRI™ Issue Brief reports on which Medicaid-enrolled children were more likely to receive dental care, what dental services were most frequently used, and whether medical care use and/or the number of participating dentists were associated with greater dental care use.

Few Children Enrolled in Medicaid Received Dental Care

Less than one-quarter (22 percent) of Alabama Medicaid children, age 3 or over and enrolled at least 6 months, and 39 percent of comparable Georgia Medicaid children, received dental care during the study period. These rates were typical for Medicaid programs across the country during this time.

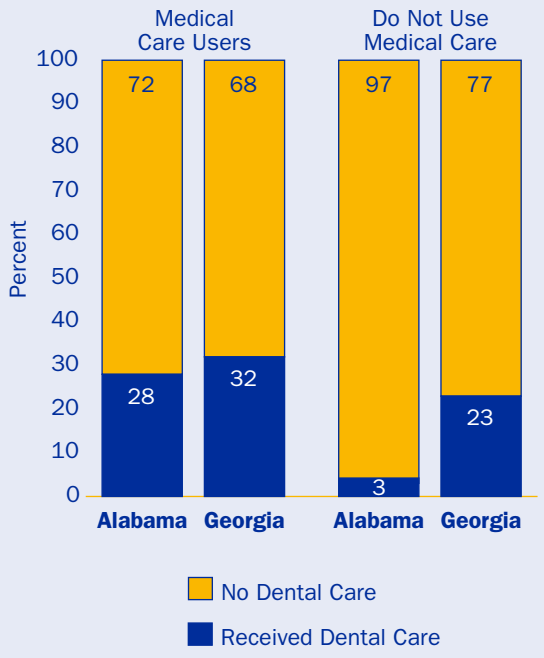
Preschoolers and adolescents received less dental care than elementary school children. One-fifth of Alabama children ages 3-5 and 12-18 received dental care as compared to 25 percent of children ages 6-11; in Georgia the figures for the same age groups were one-third versus 45 percent. Overall, children with special health care needs (CSHCN) received more dental care than other children enrolled in Medicaid. Minority children were slightly less likely to receive dental care than white children.

Definitions of Dental Care Service Terms

For purposes of this CHIRI™ Issue Brief:

- *Preventive dental care* includes oral exams, teeth cleanings, sealants, fluoride treatments, and x-rays.
- *Restorative care* includes fillings and crowns.
- *Surgical care* includes tooth extractions and endodontics.
- *Emergency care* includes pulp treatments and treatment of abscesses.

Figure 1. Dental and Medical Care Use for Medicaid-Enrolled Children



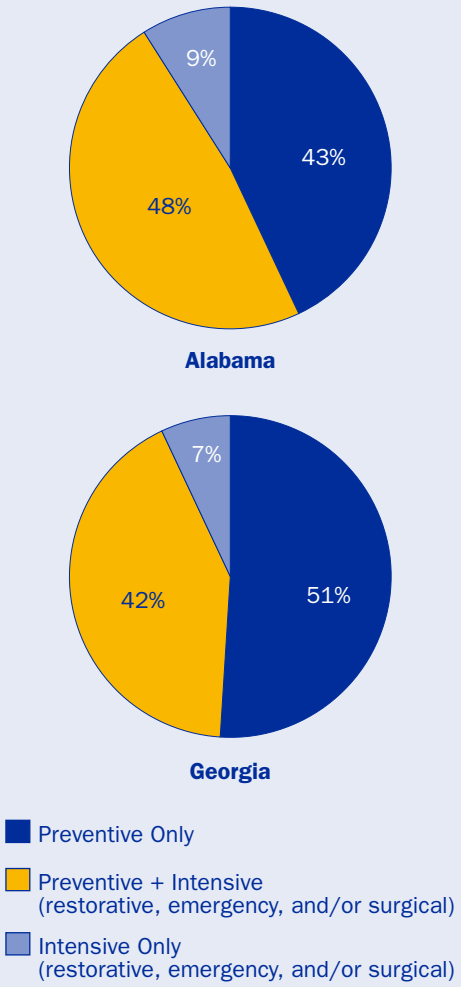
Medical Care Users Were More Likely to Receive Dental Care

In both Alabama and Georgia, nearly one-third of children enrolled in Medicaid who received medical care also received dental care (Figure 1). In contrast, children who did not receive medical care were much less likely to have received dental care (3 percent in Alabama and 23 percent in Georgia).

Half of Children with Dental Care Received Intensive Dental Services

Alabama and Georgia children enrolled in Medicaid used a full range of dental care services. Approximately half of those children who had a dental visit received intensive dental care services—restorative, emergency, and surgical—usually in addition to preventive care (Figure 2). Nearly all (over 90 percent) of the children with dental visits received preventive dental care.

Figure 2. Types of Dental Care Used by Medicaid-Enrolled Children



The Number of Medicaid Dentists Had Some Effect on Dental Care

Increasing dentist participation in Medicaid is often cited as one of the ways to improve access to dental care. Some support for this was found in Alabama and Georgia. Medicaid-enrolled children who lived in counties with the greatest number of Medicaid dentists per enrollee were 24 percent more likely to receive restorative dental care than their counterparts living in counties with the fewest Medicaid dentists per enrollee.

Highlights of Alabama and Georgia Efforts to Improve Children's Dental Care Access in Medicaid

Many States, including Alabama and Georgia, have implemented initiatives to improve dental care provider participation in children's public insurance programs as a means of improving children's access to dental care.

The **Alabama** Medicaid program implemented a dental initiative in October 2000 to recruit and retain dental providers and educate families in Medicaid about the importance of preventive dental care. Under the initiative, dentists are typically reimbursed at 100 percent of regular Blue Cross-Blue Shield rates.

The **Georgia** Medicaid program implemented the "Take Five" program in October 2000 to encourage dental providers to serve at least five children enrolled in Medicaid per year. Medicaid reimbursement fees for the 56 most-used dental services were significantly increased in July 2000 and received a 3.5-percent increase in July 2002.

The likelihood of receiving preventive dental care was also related to Medicaid dentist participation, but less strongly. Compared to children living in counties with an average number of Medicaid dentists per enrollee, children living in counties with more dentists were more likely to receive preventive dental care. The converse, however, was not always true. In some of the counties with a below-average number of Medicaid dentists per enrollee, the likelihood of receiving preventive dental care was still better than in average counties.

CONCLUSION

Whether children need early comprehensive dental care is not disputed. In fact, dental and pediatric provider organizations recommend that low-income children visit a dentist after the first tooth erupts or by 12 months of age, for a range of interventions designed to prevent oral disease. Furthermore, the Department of Health and Human Services recently released a five-step action strategy to improve oral health for all Americans.

The Alabama and Georgia Medicaid programs of the late 1990s are illustrative of the Nation's problems with dental care access for children in public insurance programs. Data from the national Medical Expenditure Panel Survey show that nearly three-quarters of children with Medicaid coverage received

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no dental services in a year even though they are entitled to dental care under Medicaid.

The Alabama and Georgia Medicaid dental programs were more effective at serving some populations than others. Children who had more contact with the health care system were more likely to receive dental care. But even though they fared better than their counterparts who did not use medical care, the majority of children who used medical care still did not receive any dental services. Preschool, adolescent, and minority children were less likely to receive dental care than others.

Most of the children who were able to get dental services received preventive care, and many received intensive services such as emergency and restorative care. It appears, however, that some dental needs were not met. For example, children in areas where there were fewer Medicaid dentists per enrollee were less likely to receive restorative care. Since there is no reason to believe that these children had less need of restorative care than children who lived in areas with more dentists, this finding suggests that many children went without needed treatment.

Improving dentists' participation in Medicaid may increase the likelihood of children receiving restorative and preventive dental care. The number of Medicaid dentists, however, only had a modest effect on children's likelihood of receiving restorative and particularly preventive dental care. Clearly, factors other than the availability of participating dentists influence children's dental care use in public insurance programs.

Medicaid-enrolled children were far more likely to receive medical care than dental care. If every child who had a medical visit also had a dental visit, many (61 percent in Alabama and 78 percent in Georgia) Medicaid children would have received dental care. States can take advantage of the fact that medical providers see more children than dentists to increase the proportion of children who receive dental care, as suggested in the Policy Implications section.

Policy Implications

These States' experiences provide important insights for improving dental care access and service delivery to children enrolled in Medicaid and SCHIP.

- *Increasing early access to and use of preventive dental services is an important goal for children's public insurance programs.* With most children failing to get recommended preventive care, State leaders will want to make improving the delivery of preventive dental care a priority.
- *Providing comprehensive dental benefits in public insurance programs permits children with dental disease to get treatment and not forgo vital dental care.* The full breadth of services that children used underscores the need for comprehensive dental care. More than half of the children who received dental care had cavities filled, teeth repaired, and/or abscesses treated, in addition to preventive dental care.
- *Implementing multi-pronged strategies that capitalize on where children and their families seek care should be pursued, particularly for underserved populations.*
  - ✓ Dentists, who play a central role in providing dental care services to children, could deliver dental care in primary care settings, where most children go to address health care needs.
  - ✓ Pediatricians and other primary care providers can play an important role in educating families about the importance of oral health, providing early oral health risk assessments and preventive counseling, and making critical links to dentists.
  - ✓ Alternative service delivery approaches, such as mobile health vans, may be needed in order to reach underserved populations who do not access either medical or dental care services.

STUDY METHODOLOGY

Analyses were based on a 25-percent sample of children enrolled in Medicaid in calendar years 1999 (Alabama) and 1997 (Georgia). Children enrolled fewer than 6 months were excluded from the analyses. Each State's data set included records for all enrolled children, even those who did not use any health or dental services in the year of analysis.

Dental visits were defined as encounters of a single child with a single provider on a single date that were billed for dental services. Age and race/ethnicity data were obtained from Medicaid administrative records. Dental service type was identified based on dental claims procedure codes. Identification of CSHCN status was based on a formula that identified diagnoses on claims that are indicative of a chronic illness or a mental health services need. Children were counted as using medical care if they had any medical evaluation and management and/or well-child care.

Dentist-to-enrollee ratios were calculated by dividing the number of dentists in each county by the number of children enrolled in Medicaid in the county. Dentists who billed for fewer than 12 Medicaid visits in the year were excluded. For both States, each county was assigned a percentile based on its Medicaid dentist-to-enrollee ratio as compared to other counties in the State.

The association between dentist-to-enrollee ratios in a residential county and children's likelihood of having a restorative or preventive dental visit in the year was assessed using logistic regression analysis, controlling for State, race/ethnicity, age, Medicaid eligibility group, rural or urban residence (based on the classification of ZIP Codes used by the U.S. Department of Agriculture), months of enrollment in the year, whether the child used medical care in the year, and whether the child was classified as a CSHCN. The likelihoods represent the odds ratios of having a visit, given the percentile of the dentist-to-enrollee ratio in the county. The odds are relative to the likelihood of having a visit in the county at the middle (50th percentile) of the distribution of dentist-to-enrollee ratios.

SOURCES AND RELATED STUDIES OF INTEREST

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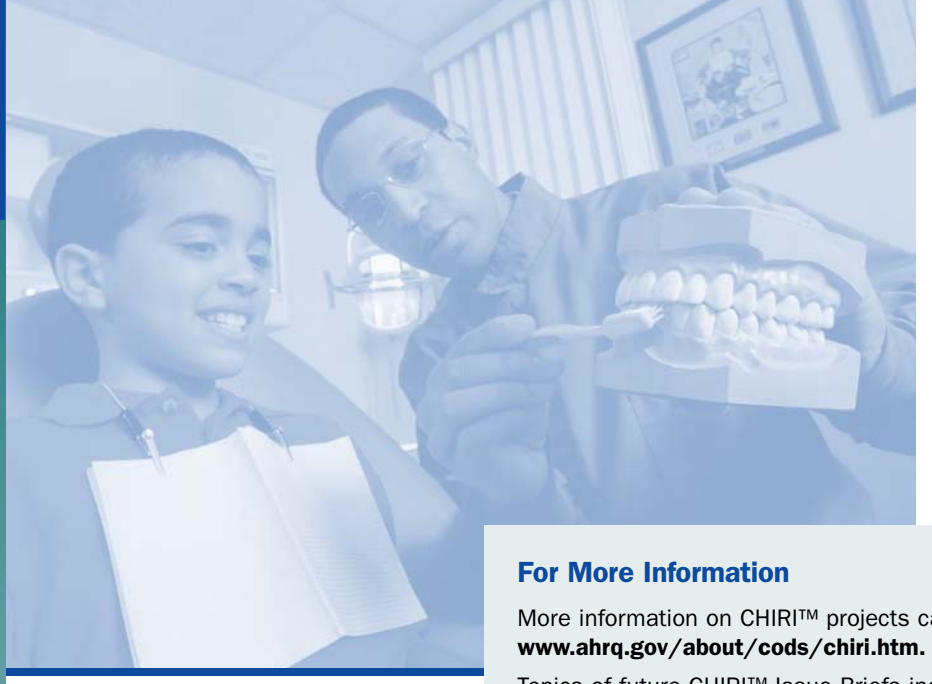

For More Information

More information on CHIRI™ projects can be found at **www.ahrq.gov/about/cods/chiri.htm.**

Topics of future CHIRI™ Issue Briefs include:

- Characteristics of SCHIP enrollees.
- Adolescents' quality of care prior to enrolling in SCHIP.
- Disenrollment and retention in public insurance programs.

ABOUT CHIRI™

The Child Health Insurance Research Initiative (CHIRI™) is an effort to supply policymakers with information to help them improve access to, and the quality of, health care for low-income children. Nine studies of public child health insurance programs and health care delivery systems were funded in the fall of 1999 by the Agency for Healthcare Research and Quality (AHRQ), The David and Lucile Packard Foundation, and the Health Resources and Services Administration (HRSA). These studies seek to uncover which health insurance and delivery features work best for low-income children, particularly minority children and those with special health care needs.

The CHIRI™ project "Provider Participation and Access to Care in Alabama and Georgia"(Principal Investigator: Janet Bronstein) provided the analyses for this Issue Brief.

Information about children's oral health is available from:

- The Children's Dental Health Project, http://www.cdhp.org.
- The Division of Oral Health, Centers for Disease Control and Prevention, http://www.cdc.gov/oralhealth/index.htm.
- The National Maternal and Child Oral Health Resource Center, http://www.mchoralhealth.org.
- Oral Health America, http://www.oralhealthamerica.org.

CHIRI™ FUNDERS

The Agency for Healthcare Research and Quality, part of the U.S. Department of Health and Human Services, is the lead Federal agency charged with supporting research designed to improve the quality of health care, reduce its costs, address patient safety and medical errors, and broaden access to essential services. AHRQ sponsors and conducts research that provides evidence-based information on health care outcomes; quality; and cost, use, and access.

The David and Lucile Packard Foundation is a private family foundation that provides grants in a number of program areas, including children, families and communities, conservation and science, and population.

The Health Resources and Services Administration, also part of the U.S. Department of Health and Human Services, directs national health programs that provide access to quality health care to underserved and vulnerable populations. HRSA also promotes appropriate health professions workforce supply, training and education.

Credits: This CHIRI™ Issue Brief was written by Karen VanLandeghem, Janet Bronstein, and Cindy Brach, based on research conducted by Janet Bronstein, with assistance from Betsy Shenkman, Nancy Swigonski, and Gin Schaffer.

Suggested Citation: VanLandeghem K, Bronstein J, Brach C. Children's dental care access in Medicaid: The role of medical care use and dentist participation. CHIRI™ Issue Brief No. 2. Rockville, MD: Agency for Healthcare Research and Quality. June 2003. AHRQ Pub. No. 03-0032.

AHRQ Pub. No. 03-0032
June 2003