Disparities in Child Access to Emergency Care for Acute Oral Injury
Joanna Bisgaier, Diana B. Cutts, Burton L. Edelstein and Karin V. Rhodes

Pediatrics; originally published online May 23, 2011;
DOI: 10.1542/peds.2011-0011

The online version of this article, along with updated information and services, is located on the World Wide Web at:
http://pediatrics.aappublications.org/content/early/2011/05/19/peds.2011-0011
Disparities in Child Access to Emergency Care for Acute Oral Injury

**WHAT’S KNOWN ON THIS SUBJECT:** Traumatic injuries to permanent front teeth affect 1 in 7 preadolescent children, but more than 10% of significant dental fractures go untreated. Medicaid and CHIP are designed to provide access to care, but there is underutilization of dental services by low-income children.

**WHAT THIS STUDY ADDS:** This study directly measured dentists’ willingness to provide emergency oral health care in the second-largest US urban county and finds significant disparities in access for children covered by Medicaid or CHIP versus private insurance, controlling for all non–insurance-related access barriers.

**abstract**

**OBJECTIVE:** We examined the impact of insurance status on dental practices’ willingness to schedule an appointment for a child with a symptomatic fractured permanent front tooth.

**PATIENTS AND METHODS:** Between February and May 2010, 6 research assistants posed as mothers of a 10-year-old boy seeking an urgent dental appointment. Two calls 4 weeks apart, with the same clinical scenario, were made by the same caller to a stratified random sample of dental practices, one-half of which were enrolled in the state’s combined Medicaid and Children’s Health Insurance Program (CHIP) dental program. The only difference in the calls was the child’s insurance coverage (Medicaid/CHIP versus private Blue Cross dental coverage). We estimated differences in the log-odds probability of scheduling an appointment for a child with public versus private insurance by using exact conditional (fixed-effects) logistic regression, which accounts for paired data.

**RESULTS:** Of 170 paired calls to 85 dental practices (41 participating in the Medicaid program), only 36.5% of Medicaid beneficiaries obtained any appointment compared with 95.4% of Blue Cross—insured children with the same oral injury. Among dental providers enrolled in the Medicaid program, children with Medicaid were still 18.2 times more likely to be denied an appointment than privately-insured counterparts (95% confidence interval: 3.1 to ∞; P < .001).

**CONCLUSIONS:** Illinois dentists, including those participating in Medicaid, are less likely to see a child for an urgent dental complaint if the child has public versus private dental coverage. These results have implications for developing policies that improve access to oral health care. *Pediatrics* 2011;127:e1428–e1435

**AUTHORS:** Joanna Bisgaier, MSW,a Diana B. Cutts, MD,b Burton L. Edelstein, DDS, MPH,c,d and Karin V. Rhodes, MD, MS,a,e

aSchool of Social Policy and Practice and bDepartment of Emergency Medicine, University of Pennsylvania, Philadelphia, Pennsylvania; cDepartment of Pediatrics, Hennepin County Medical Center, Minneapolis, Minnesota; dSocial and Behavioral Sciences, Columbia University College of Dental Medicine, New York, New York; and eThe Children’s Dental Health Project, Washington, DC

**KEY WORDS**

access to oral health care, access to dental care, Medicaid, Children’s Health Insurance Program, provider participation in public insurance, restorative dental care, acute oral injury

**ABBREVIATION**

CHIP—Children’s Health Insurance Program

Ms Bisgaier contributed to the study concept and design; acquisition of the data; analysis and interpretation of the data; drafting of the manuscript; critical revision of the manuscript for important intellectual content; statistical expertise; administrative, technical, or material support; study supervision; and review for content. Dr Cutts contributed to the study concept and design; analysis and interpretation of data; critical revision of the manuscript for important intellectual content; administrative, technical, or material support; and review for content. Dr Edelstein contributed to the analysis and interpretation of the data; drafting of the manuscript; critical revision of the manuscript for important intellectual content; administrative, technical, or material support; and review for content. Dr Rhodes contributed to the study concept and design; acquisition of the data; analysis and interpretation of the data; drafting of the manuscript; critical revision of the manuscript for important intellectual content; statistical expertise; obtaining funding; administrative, technical, or material support; study supervision; and review for content.

doi:10.1542/peds.2011-0011

Accepted for publication Feb 11, 2011

Address correspondence to Karin V. Rhodes, MD, MS, Emergency Care Policy Research, Department of Emergency Medicine and School of Social Policy and Practice, University of Pennsylvania, 3815 Walnut, Room 201, Philadelphia, PA 19104. E-mail: kvr@sp2.upenn.edu

**FINANCIAL DISCLOSURE:** The authors have indicated that they have no personal financial relationships relevant to this article to disclose.
Traumatic injuries to permanent front teeth affect 1 in 7 children between the ages of 8 and 13 years and nearly 1 in 4 adolescents between the ages of 16 and 19 years in the United States. Despite the need for urgent care, 11% of significant dental fractures go untreated. Medicaid and the Children’s Health Insurance Program (CHIP) include coverage for oral health procedures that prevent disease, repair damage, relieve pain, and restore function. There are multiple, interacting mechanisms associated with children’s inability to access dental services, including insurance nonacceptance, inconvenient appointment times, unreliable transportation, parental education, language proficiency, and health-seeking behaviors. This complexity makes it difficult to discern the extent to which parent-reported access failures and observed underutilization of dental services by low-income children are explained by dentists’ unwillingness to provide care for children who are publicly insured. Studies of dentists indicate low acceptance of Medicaid and but provider surveys are prone to response and recall biases and lack precision in measuring the extent of access disparities.

The goal of this study is to directly measure dentists’ willingness to provide treatment for acute oral injury to children with Medicaid/CHIP versus private insurance, while holding all other variables constant. The study setting is Illinois, which has implemented 2 major policy interventions to increase the supply of dentists accepting Medicaid: (1) contracting with a national dental benefits management company to streamline billing processes, administer benefits, perform family outreach, and recruit/enroll providers (beginning in 1999); and (2) increasing Medicaid reimbursement rates for basic preventive services (examination, prophylaxis, fluoride, and sealant) in 2006 up to the fee levels of the state employee plan (without analogous increases for restorative procedures). Illinois is among 26 states implementing the CHIP and Medicaid as a combination program under 1 name with identical reimbursement rates. Moreover, in Illinois, even non-enrolled dentists can be reimbursed by Medicaid/CHIP for providing emergency dental services.

PATIENTS AND METHODS

Between February 22, 2010, and May 12, 2010, we conducted an audit study in Cook County, Illinois, to measure dentists’ acceptance of private versus public insurance. Audit studies have been used to measure “real-life” behaviors and generate estimates of discrimination in markets such as housing and employment and, more recently, health care markets. Graduate-level research assistants, trained and supervised by the University of Chicago Survey Laboratory, posed as mothers making paired-calls to the same dental practice. They attempted to schedule an appointment for a 10-year-old boy who was referred from an emergency department for an acutely fractured upper front tooth with pain. The same caller contacted the same practice twice separated by ~4 weeks. The order of the child’s reported insurance type, the only variant between pair calls, was randomly assigned. This approach allows for a direct comparison of access by insurance status. If questioned about their child’s symptoms, callers reported symptoms indicative of a crown fracture of a permanent tooth, which requires urgent dental care, ideally within 24 hours. This clinical scenario was chosen by a pediatric primary care provider and dental consultants as a common dental condition warranting timely treatment to optimize outcomes.

To sample Cook County dental practices, we constructed a comprehensive list of dentists who are and are not enrolled in the Illinois Medicaid/CHIP dental administrator program, using dentist licensure data provided by the Illinois Department of Professional Regulations and a list of Medicaid/CHIP-enrolled dentists provided by the Illinois Department of Health Care and Family Services. Because more than 2 dentists may work at the same practice and 1 dentist may work at multiple practices, we sampled practices rather than individual dentists. A practice was defined as a unique (unduplicated) telephone number used for scheduling appointments. Two random samples of dental practices (enrolled versus not enrolled in the Medicaid/CHIP) were stratified to reflect the distribution of practice locations within and outside of the city of Chicago. Random samples were drawn using a computer algorithm that randomly sorted each sampling frame 3 times. The lists with the first 40 practices best matching their sampling frame’s practice location distribution were chosen. Because the lists were in random order, call-order randomization was achieved by assigning case 1 to report Medicaid/CHIP first, case 2 to report Medicaid/CHIP second, and continued alternating assignment.

Data Collection

This study was approved by the institutional review boards at the University of Pennsylvania and the University of Chicago, with debriefings to practices in the sampling frame. Calls to dental practices were made from the Survey Laboratory’s central computer-assisted telephone interview center with prepaid cell telephones. Standardized computer-assisted telephone interview scripts began with, “My 10-year-old son needs to see a dentist.” If asked why, callers responded, “He fell off his bike and
broke his tooth, so we took him to the [emergency department], and the [emergency department] said there’s nothing more they could do and we should follow-up with a dentist.” If denied an appointment or given an appointment more than 2 weeks from the call date, callers said, “My child does have some pain. Is there an appointment sooner than that?” If asked the location of the tooth, callers reported, “It’s the right front tooth, on the top.”

Callers were trained to use the computer-assisted telephone interview script and a postcall evaluation form by performing practice calls with Survey Laboratory supervisors, where their performance was evaluated. In addition, the Survey Laboratory director initially conducted calls as callers observed and took notes. Once supervisors believed that callers were comfortable with the script, they were allowed to conduct calls. All callers were closely supervised (listening in) for adherence to the script and adequate note taking.

To control for the effects of a voice sounding like a certain race, all samples were randomly assigned into 3 groups of the self-identified race of callers (African American, Hispanic, and white). There were minor variations in patient and callers’ names, dates of birth, addresses, and primary care provider names and addresses. If asked for their child’s primary care provider, callers gave 1 of 10 most frequently occurring physician surnames from Fiscal Year 2008 Medicaid/CHIP claims (provided by Illinois Health Care and Family Services). For private insurance, callers reported that their child had Blue Cross dental coverage because it has the largest market share in Illinois.36 Carriers did not volunteer their insurance status unless asked. If an appointment was granted without insurance questions, callers confirmed the acceptance of their child’s insurance. If an insurance type was denied, callers inquired about cash payment.

Calls were kept as short as possible, and all appointments were cancelled immediately. To avoid appointment denials on the basis of geographic discrimination, we geocoded all dental practices and generated false patient and primary care provider addresses that were in the relative vicinity (but more than 1 mile away) of practices using ArcGIS9.3. If asked, callers reported emergency departments located in the general area of the dental practice. If asked for insurance card numbers, callers provided dummy Medicaid/CHIP numbers generated by Illinois Health Care and Family Services that would seem valid in the Medicaid computer system. Standardized “work-arounds” were developed for questions that callers were unable to answer (eg, social security numbers, private insurance number).

Dental practices were deemed “out of scope” if they reported not treating 10-year-old patients (before knowing the child’s insurance) or if there were no providers able to treat a fractured tooth. After 3 calls without reaching a live person, callers left a voicemail with their assigned name, cell telephone number, and insurance type. If voicemails were not returned, callers tried 6 more times, leaving additional voicemails, after which numbers were considered nonfunctional. Out-of-scope practices and nonfunctional telephone numbers were replaced with the next random practice listed. Primary outcomes were the percentage of callers by insurance status who were denied any appointment and the percentage of callers who were denied an appointment within 2 days (ie, denied a timely appointment given the clinical severity). Descriptive data about screening questions asked to the caller by the practices, wait times (number of days) between calls and scheduled appointment dates, and caller inquiries about cash payment also were recorded.

**Statistical Analysis**

All analyses were performed by using Stata/SE11.0 (Stata Corp, College Station, TX). Descriptive statistics were tabulated for the overall sample and by the insurance profile of the paired calls. We estimated differences in the log-odds probability of scheduling an appointment for a child with Medicaid/CHIP versus private insurance using exact conditional (fixed-effects) logistic regression, which accounts for matched data by controlling for all time-invariant covariates (ie, caller characteristics and clinical symptoms). Sample size calculations were based on previous data, using a matched-paired audit design to measure adults’ access to medical appointments after an emergency-department visit.28 We calculated that a sample of 20 dental practices would give 80% power to detect a 34% difference, and 32 practices were needed to detect a 20% difference in the rate of practices accepting public versus private insurance at α=0.05. Therefore, our target was ~40 dental practices per practice type (ie, enrolled versus nonenrolled in the Medicaid/CHIP dental administrator program). If callers left voicemails, they called the next random case while awaiting the returned call (opening the possibility of >40 practices per sample). We used χ² analyses to test our assumption of no associations between call order and appointment success and callers’ vocal ethnicity and appointment success; a value of P<.05 was indicative of significance.

**RESULTS**

As depicted in Fig 1, only 671 of 4617 dental practices (14.5%) in Cook County participate in Medicaid/CHIP.
The Survey Laboratory attempted to contact 51 dental practices with at least 1 Medicaid/CHIP-enrolled dentist and 72 dental practices without any Medicaid/CHIP-enrolled dentists. Six enrolled practices (11.8%) and 8 non-enrolled practices (11.1%) were deemed out of scope when front office staff stated that the practice did not treat either children or dental fractures. Because of nonfunctional numbers, 4 enrolled practices (7.8%) and 20 non-enrolled practices (27.8%) were excluded. Of 85 practices in the final sample, callers were able to complete both calls of the study protocol with 100%.

Table 1 summarizes descriptive features of calls by insurance status. Of 170 calls, 57 callers (33.5%) were asked for their child's insurance type before knowing if they could schedule an appointment, and in more than one-half of these cases (56.1%), insurance type was the first question asked. When insurance type was not asked before scheduling (113 calls), callers checked that their insurance was accepted. After learning insurance status, 7.3% of scheduled Medicaid/CHIP appointments were retracted by Medicaid/CHIP-enrolled practices and 40.9% were retracted by nonenrolled practices, whereas scheduled appointments for Blue Cross callers were never retracted. Overall, callers were told their insurance type was not accepted by the dental practice in 63.5% of Medicaid/CHIP calls and 4.7% of Blue Cross calls. Of 41 practices enrolled in the Medicaid/CHIP, 31.7% denied appointments to children covered by Medicaid/CHIP, whereas they scheduled appointments for 100% of Blue Cross–insured children. Nonenrolled practices denied appointments to 93.2% of Medicaid/CHIP beneficiaries. There were no associations between call order and appointment success ($\chi^2 = 0.11 \ [n = 170] ; P = .748$) or callers' vocal race/ethnicity and appointment success ($\chi^2 = 0.04 \ [n = 170] ; P = .982$).

For children covered by Medicaid/CHIP who scheduled appointments with enrolled practices, the average wait time was 2.6 days (range: 0–17), whereas appointments for Medicaid/CHIP-insured children at nonenrolled practices had an average wait time of 6.3 days (range: 6–7). Among Medicaid/CHIP-enrolled practices that denied an appointment for a child with Medicaid/CHIP, callers inquired about cash payment with 9 practices. Of these 9 practices, 100% were willing to schedule cash-payment appointments, requiring an average of $124.00 (range: $30.00–$200.00). Among nonenrolled practices that denied an appointment for a child with Medicaid/CHIP, 88.6% were willing to schedule a cash-payment appointment (mean: $95.50 [range: $25.00–$205.00]).
### TABLE 1 Descriptive Information About Calls Reporting Medicaid/CHIP Coverage Versus Blue Cross/Blue Shield Coverage to 85 Dental Practices (Each Practice Was Called Twice by the Same Caller, Varying Only Reported Insurance Coverage)

<table>
<thead>
<tr>
<th>All Practices</th>
<th>Medicaid/CHIP-Enrolled Practices</th>
<th>Nonenrolled Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Medicaid/CHIP Calls (n = 85)</td>
<td>Blue Cross/Blue Shield Calls (n = 85)</td>
</tr>
<tr>
<td>Screening/intake procedures, %</td>
<td>Medicaid/CHIP</td>
<td>Blue Cross/Blue Shield</td>
</tr>
<tr>
<td>Insurance identification number required</td>
<td>2.4</td>
<td>10.6</td>
</tr>
<tr>
<td>Parent/child's home location requested</td>
<td>11.8</td>
<td>9.4</td>
</tr>
<tr>
<td>Primary care provider's location requested</td>
<td>0.0</td>
<td>1.2</td>
</tr>
<tr>
<td>Primary care provider's name requested</td>
<td>3.5</td>
<td>3.5</td>
</tr>
<tr>
<td>Emergency department's name requested</td>
<td>1.2</td>
<td>0.0</td>
</tr>
<tr>
<td>Practice attempted to assess the severity of condition</td>
<td>64.7</td>
<td>63.5</td>
</tr>
<tr>
<td>Caller divulged emergency status of child's condition</td>
<td>77.6</td>
<td>76.4</td>
</tr>
<tr>
<td>Practice asked for insurance type prior to scheduling</td>
<td>30.6</td>
<td>36.5</td>
</tr>
<tr>
<td>Insurance type was the first question asked on the call</td>
<td>18.8</td>
<td>18.8</td>
</tr>
<tr>
<td>Insurance type was provided by caller after scheduling</td>
<td>68.4</td>
<td>63.5</td>
</tr>
<tr>
<td>No change to the scheduled appointment</td>
<td>44.7</td>
<td>63.5</td>
</tr>
<tr>
<td>Appointment was completely retracted</td>
<td>24.7</td>
<td>0.0</td>
</tr>
<tr>
<td>Practice suggested the caller go to a different practice</td>
<td>5.9</td>
<td>0.0</td>
</tr>
</tbody>
</table>

#### Insurance acceptance

| Denied any appointment because of insurance, % | 63.5 | 4.7 | 31.7 | 0.0 | 93.2 | 9.1 |
| Average wait time with insurance, mean ± SE (range), d | 3.0 ± 0.7 (0–17) | 2.6 ± 0.4 (0–17) | 2.6 ± 0.7 (0–17) | 2.9 ± 0.7 (0–17) | 6.3 ± 0.3 (6–7) | 2.5 ± 0.5 (0–15) |
| Denied appointment in ±2 d because of insurance, % | 75.3 | 34.1 | 48.8 | 31.7 | 100.0 | 36.4 |
| Cash payment inquiries (after insurance was denied)* | 57.6 | 4.7 | 22.0 | 0.0 | 90.9 | 9.1 |
| The option of paying cash was discussed, %* | 1.2 | 0.0 | 0.0 | NA | 2.3 | 0.0 |
| The practice said the caller could not pay cash, % | 56.5 | 4.7 | 22.0 | NA | 88.6 | 9.1 |
| Cash-payment appointment was not otherwise available, % | 101.94 ± 9.07 | 65.00 ± b | 124.00 ± 21.99 | NA | 95.50 ± 9.68 | 65.00 ± b |
| Total amount of cash needed, mean ± SE, $ | 8.2 | 0.0 | 2.4 | NA | 13.5 | 0.0 |
| Practice agreed to an initial partial payment, % | 97.54 ± 9.82 | 65.00 ± b | 121.57 ± 22.77 | NA | 90.54 ± 10.66 | 65.00 ± b |
| Amount needed on day of appointment, mean ± SE, $ | 2.7 ± 0.7 (0–21) | 0.8 ± 0.5 (0–2) | 2.8 ± 1.6 (0–14) | NA | 2.6 ± 0.7 (0–21) | 0.8 ± 0.5 (0–2) |
| Average wait time with cash payment, mean ± SE (range), d | e1432

---

*aThere were 5 Medicaid/CHIP calls (4 to enrolled practices and 1 to a nonenrolled practice) in which the caller neglected to inquire about cash payment even though the child’s reported insurance coverage was denied.

*bThere were 3 Blue Cross/Blue Shield calls in which the caller was told that Blue Cross/Blue Shield was out of network and they would have to pay whatever Blue Cross/Blue Shield did not cover in cash. The practices told the caller that they did not know the required amount of cash to comprise the difference between the charge and what was covered by Blue Cross/Blue Shield. Therefore, there was only 1 Blue Cross/Blue Shield call in which the amount of cash payment is known and no SE to report.
TABLE 2 Difference in the Likelihood of Medicaid/CHIP-Enrolled Patient Being Denied an Urgent Restorative Dental Care Appointment Compared to Privately Insured Patients

<table>
<thead>
<tr>
<th>Practice Status</th>
<th>No. of Practices</th>
<th>Medicaid/CHIP Denied Any Appointment Compared With Private Insurance, Odds Ratio (95% Confidence Interval)</th>
<th>Medicaid/CHIP Denied Appointment ≤2 d Compared With Private Insurance, Odds Ratio (95% Confidence Interval)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All practices</td>
<td>85</td>
<td>51.0 (8.8 to 2053.9) a</td>
<td>8.0 (3.2 to 26.0) a</td>
</tr>
<tr>
<td>Enrolled practices</td>
<td>41</td>
<td>18.2† (3.1 to ∞) b</td>
<td>2.4 (0.8 to 8.7)</td>
</tr>
<tr>
<td>Nonenrolled practices</td>
<td>44</td>
<td>38.0 (6.4 to 1539.9) a</td>
<td>39.9† (7.1 to ∞)</td>
</tr>
</tbody>
</table>

a P < .001.

† As a result of an extreme split on the dependent variable, exact conditional (fixed-effects) logistic regression odds ratios are medium unbiased estimates with no upper confidence interval.

aid/CHIP was 38 times more likely to be denied any appointment (odds ratio: 38.0 [95% confidence interval: 6.4–1539.9]; P < .001) and almost 40 times more likely to be denied an appointment within 2 days (odds ratio: 39.9 [95% confidence interval: 7.1 to ∞]; P < .001).

DISCUSSION

Children with an acute oral injury seeking dental treatment were significantly less likely to be able to access dental care if they had public versus private insurance. This was true even when dental practices that are enrolled in the Medicaid/CHIP were called. Enrolled practices that were unwilling to schedule an urgent appointment for a child with Medicaid/CHIP were able to schedule 100% of privately insured patients and usually were willing to schedule the appointment if parents were able to pay in cash. This indicates that appointment availability hinged on payment status. In Illinois, less than 15% of dentists are enrolled in the Medicaid/CHIP, but even nonenrolled dentists can be reimbursed by the state for emergency services provided to Medicaid/CHIP beneficiaries. However, this did not guarantee access to emergency dental care for publicly insured children.

Although our findings of disparities in oral health access by insurance status are consistent with other studies, previous studies have not overcome common design limitations. Provider and family surveys are subject to response and recall biases, and parents may lack understanding of dental urgency or specifics of their insurance coverage. Studies using administrative utilization data are unable to control for multiple interacting domains of access barriers. These methods are unable to isolate and measure the difference between dentists’ willingness to accept patients with Medicaid/CHIP coverage versus analogous patients with private coverage. Smith and Lewis (2005) used simulated parent telephone calls inquiring about new patient appointments for preventive dental visits in a large urban area and found that only 15% of practices were willing to schedule appointments for Medicaid, whereas 99% of the same practices would schedule cash-payment appointments. However, that study did not test a private insurance comparative condition, did not schedule “real” appointments, and only asked about hypothetical Medicaid appointments after disclosing that they were willing and able to pay cash. Previous studies also have not tested dental provider behavior with an urgent clinical scenario. Although interviews with dental practice personnel indicate a tendency to make “appropriate exceptions” to their insurance acceptance policies on the basis of the level of empathy of the case, we found that provider unwillingness to accept Medicaid/CHIP recipients persists even in urgent cases.

The literature cites reasons for provider nonacceptance of Medicaid, including low fees, less patient compliance, negative attitudes toward beneficiaries, and administrative requirements being too burdensome. There also is literature on dentists’ unwillingness to treat certain populations, including young children, patients with developmental disabilities, and patients living with HIV/AIDS. A general theme across these studies is dentists’ lack of comfort, which, in turn, relates to perceptions of competency treating vulnerable individuals.

Our findings speak directly to Medicaid legislation’s “Equal Access Provision,” which requires states to provide “methods and procedures relating to the utilization of, and the payment for [care],” adequate to “enlist enough providers so that care and services are available under the plan at least to the extent that such care and services are available to the general population in the geographic area.” The law requires that care be “consistent with efficiency, economy, and quality.” Study results raise the need to consider Medicaid/CHIP financing levels and dental safety-net adequacy as prerequisite policy interventions before allocating resources to other mechanisms aimed at improving access to oral health care. Policies that have been advocated to expand the workforce serving poor and low-income children nationwide include changes to federal and state financing of Medicaid/CHIP, changes in the scope of practice of allied dental professionals, changes in the training of dentists, and the expansion of dental services offered in the existing infrastructure of federally qualified...
One concerning finding is that one-fifth of calls to Medicaid/CHIP-enrolled practices on behalf of Medicaid/CHIP beneficiaries resulted in appointments that callers could not otherwise schedule without agreeing to cash payment. Dentists enrolled in the Illinois dental program are not permitted to collect cash for services rendered to Medicaid/CHIP-enrolled patients, and doing so is in violation of their contract with the state dental administrator. This signals the need for increased monitoring and education of enrolled practices. In addition, there is a need to raise awareness among dentists and parents about the extension of Medicaid/CHIP coverage to nonenrolled practices in the case of dental emergencies. Lastly, our findings indicate a need for emergency and medical providers to assume greater responsibility in locating and coordinating treatment for children with acute dental trauma.

Study results must be considered in the context of several limitations. A variable that we could not measure is whether callers were speaking with the same receptionist across paired calls. In addition, the generalizability of our results to other states is limited by interstate variation in Medicaid/CHIP policies, particularly in reimbursement rates for dental procedures and the provision of payment to non-Medicaid-participating dentists for delivery of urgent dental services. Nonetheless, Illinois can serve as a meaningful example. Most state Medicaid programs pay far less than retail rates, and Illinois Medicaid reimbursements to dentists are 53.0% of dentists’ median usual fees, which places it among 26 states that are below the national average of 60.5% of median usual fees for the same procedures. Our study was conducted in a populated urban area. Children in rural areas are known to have lower overall dental utilization rates than metropolitan areas, but previous findings indicate that rural dentists are more likely to accept public insurance (eg, less likely to discriminate on the basis of insurance). Therefore, the magnitude of difference in acceptance of public versus private insurance that we found might be greater than what would be found by similar studies in rural areas. Finally, we measured access to general dentists rather than focusing on pediatric dentists, a subgroup that is known to accept Medicaid beneficiaries at higher rates.

CONCLUSIONS

We found disparities in access to emergency dental care for children with public compared with private insurance. Results have implications for changes in oral health policy and Medicaid/CHIP financing, as well as for dental education, practice organization, and payment strategies. Although removing provider barriers may not eliminate all oral health disparities, finding dental providers willing to accept public insurance and serve children from low-income families is arguably the first vital step toward improving the oral health of our nation’s children.

ACKNOWLEDGMENTS

The State of Illinois provided funding and support to investigators at the University of Pennsylvania (including the provision of dentist licensure data, Medicaid medical claims data, and dummy Medicaid identification numbers) because of a court-ordered consent decree stemming from class action litigation on behalf of Cook County children enrolled in Medicaid.

We appreciate the collaboration, review, and methodologic advice provided by the staff of the Illinois Department of Healthcare and Family Services, Martha Van Haitsman, David Chearo, Theresa Anast, Daniel Polsky, Paul Allison, A. Russell Localio, and members of our oral health review panel.

REFERENCES

9. Al Agili DE, Pass MA, Bronstein JM, Lockwood SA. Medicaid participation by private

BISGAER et al. e1434

Downloaded from pediatrics.aappublications.org at University of Pennsylvania Library on May 23, 2011


Disparities in Child Access to Emergency Care for Acute Oral Injury
Joanna Bisgaier, Diana B. Cutts, Burton L. Edelstein and Karin V. Rhodes

*Pediatrics*; originally published online May 23, 2011;
DOI: 10.1542/peds.2011-0011

<table>
<thead>
<tr>
<th>Updated Information &amp; Services</th>
<th>including high resolution figures, can be found at: <a href="http://pediatrics.aappublications.org/content/early/2011/05/19/peds.2011-0011">http://pediatrics.aappublications.org/content/early/2011/05/19/peds.2011-0011</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>Permissions &amp; Licensing</td>
<td>Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at: <a href="http://pediatrics.aappublications.org/misc/about.xhtml#permissions">http://pediatrics.aappublications.org/misc/about.xhtml#permissions</a></td>
</tr>
<tr>
<td>Reprints</td>
<td>Information about ordering reprints can be found online: <a href="http://pediatrics.aappublications.org/misc/addir.xhtml#reprints">http://pediatrics.aappublications.org/misc/addir.xhtml#reprints</a></td>
</tr>
</tbody>
</table>

**PEDIATRICS** is the official journal of the American Academy of Pediatrics. A monthly publication, it has been published continuously since 1948. PEDIATRICS is owned, published, and trademarked by the American Academy of Pediatrics, 141 Northwest Point Boulevard, Elk Grove Village, Illinois, 60007. Copyright © 2011 by the American Academy of Pediatrics. All rights reserved. Print ISSN: 0031-4005. Online ISSN: 1098-4275.