By Kathryn R. Fingar, Mark W. Smith, Sheryl Davies, Kathryn M. McDonald, Carol Stocks, and Maria C. Raven

DOI: 10.1377/hlthaff.2015.0223
HEALTH AFFAIRS 34,
NO. 8 (2015): 1349–1357
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Foundation, Inc.

Medicaid Dental Coverage Alone May Not Lower Rates Of Dental Emergency Department Visits

ABSTRACT Medicaid was expanded to millions of individuals under the Affordable Care Act, but many states do not provide dental coverage for adults under their Medicaid programs. In the absence of dental coverage, patients may resort to costly emergency department (ED) visits for dental conditions. Medicaid coverage of dental benefits could help ease the burden on the ED, but ED use for dental conditions might remain a problem in areas with a scarcity of dentists. We examined county-level rates of ED visits for nontraumatic dental conditions in twenty-nine states in 2010 in relation to dental provider density and Medicaid coverage of nonemergency dental services. Higher density of dental providers was associated with lower rates of dental ED visits by patients with Medicaid in rural counties but not in urban counties, where most dental ED visits occurred. County-level Medicaid-funded dental ED visit rates were lower in states where Medicaid covered nonemergency dental services than in other states, although this difference was not significant after other factors were adjusted for. Providing dental coverage alone might not reduce Medicaid-funded dental ED visits if patients do not have access to dental providers.

Kathryn R. Fingar (katie.fingar@truvenhealth.com) is a research leader at Truven Health Analytics in Sacramento, California.

Mark W. Smith is a director in the Federal Government Division of Truven Health Analytics in Bethesda, Maryland.

Sheryl Davies is a research associate in the Center for Health Policy and the Center for Primary Care and Outcomes Research at Stanford University, in California.

Kathryn M. McDonald is executive director of and a senior scholar at the Center for Health Policy and the Center for Primary Care and Outcomes Research at Stanford University.

Carol Stocks is a senior research analyst in the Center for Delivery, Organization, and Markets at the Agency for Healthcare Research and Quality, in Rockville, Maryland.

Maria C. Raven is an associate professor of emergency medicine at the University of California, San Francisco.

From 2001 to 2008 emergency department (ED) visits for dental conditions increased by 41 percent in the United States, while ED visits for all conditions rose by only 13 percent.[1] Some researchers have hypothesized that the rising number of dental ED visits in recent years reflects decreasing access to community-based dental care.[1] The dental health of a population may be influenced by a range of factors, including water fluoridation—which has been shown to reduce tooth decay by 20–40 percent[2]—and access to dental care. A number of factors are thought to shape access, including the patient's income and dental insurance coverage status; the number of nearby dentists who accept the patient's insurance; and the number of nearby federally qualified health centers, some of which provide dental care.

Medicaid expansion under the Affordable Care Act (ACA) has made millions of individuals eligible for health insurance, but dental coverage for adults with Medicaid is left to each state's discretion. Dental benefits offered by state Medicaid programs typically fall into four categories: no coverage; emergency coverage (such as for extractions of diseased teeth); limited coverage, which includes diagnostic, preventive, and minor restorative services (such as x-rays and minor fillings); and comprehensive coverage, which includes major restorative services (such as root canals and dentures) in addition to diagnostic, preventive, and minor restorative services.[3–5] Limited and comprehensive coverage beyond emergency services is referred to below as *expanded dental coverage* or simply *expanded coverage*.

The recession that officially began in Decem-

ber 2007 led to budget reductions and increased Medicaid enrollment. In response, many states cut Medicaid benefits, including expanded dental coverage for adults.[6] Some states, such as California and Washington, have since reinstated nonemergency dental services,[7,8] but access continues to be very limited in other states.[9] In 2012 fewer than half of the states provided expanded dental coverage to nondisabled and nonpregnant adult Medicaid enrollees.[4] People with Medicaid for medical care but not dental care may choose to use EDs for dental conditions, because these medical services are covered by their Medicaid benefits.

Even in states whose Medicaid programs offer expanded dental coverage, patients may have difficulty locating dentists who accept Medicaid. The rate of dentists who accept Medicaid has been reported to be as low as 11 percent in Missouri,[10] 15 percent in Florida,[11] and 20 percent in New York.[12,13] Faced with pressure to cut costs, some states have lowered Medicaid reimbursement rates for dental services, which reduces the incentive for dentists to participate in the program.[12]

Additionally, as of January 2013 approximately forty-five million Americans were living in regions with shortages of dental care providers,[14] particularly in rural areas.[15,16] In coming years, the national supply of dentists is expected to decrease further, as many dentists retire.[17]

If states elect to offer expanded dental coverage to millions of individuals newly eligible for Medicaid under the ACA, there is the potential to reduce Medicaid ED expenditures by funding timely treatment of nontraumatic dental conditions in dentists' offices. Ideally, the treatment of dental conditions in office settings serves as a form of prevention, reducing the need for unscheduled use of the ED. Yet expanding dental coverage through Medicaid might not increase access to dental care or reduce ED visits if patients cannot find a provider.

We used hospital data from twenty-nine states to analyze county-level rates of ED visits by patients with nontraumatic dental conditions. We investigated the association between Medicaid dental coverage, the supply of dental providers, and use of the ED for dental conditions. We separately examined rates of nontraumatic dental ED visits among Medicaid enrollees and among patients with other types of health insurance or no health insurance.

Study Data And Methods

DATA SOURCE AND STUDY POPULATION We conducted a retrospective analysis of data for 2010 from the State Emergency Department Databases developed for the Healthcare Cost and Utilization Project by the Agency for Healthcare Research and Quality (AHRQ). We focused on nontraumatic dental conditions among adults ages 20–64 who were treated and released from the ED. We included adults only because Medicaid coverage differs for children and adults. We used data for 2010 for adults ages 20–64 because population counts by age and Medicaid status could be derived for this year and age group, which allowed us to calculate county-level rates.

The State Emergency Department Databases contained data for 2010 from twenty-nine states: Arizona, California, Connecticut, Florida, Georgia, Hawaii, Illinois, Indiana, Iowa, Kansas, Kentucky, Maine, Maryland, Massachusetts, Minnesota, Missouri, Nebraska, Nevada, New Jersey, New York, North Carolina, Ohio, Rhode Island, South Carolina, South Dakota, Tennessee, Utah, Vermont, and Wisconsin.[18] We used patients' county of residence to merge these data with information from the Area Health Resources Files, which compile county-level data from multiple sources and years.

All members of our research team signed a data use agreement. Because the Healthcare Cost and Utilization Project does not involve human subjects, Institutional Review Board approval and written informed consent were not required for this study.

DEPENDENT VARIABLE ED visits by patients for nontraumatic dental conditions were identified in the State Emergency Department Databases using the beta version of the ED Prevention Quality Indicators developed for AHRQ.[19] Nontraumatic conditions include conditions such as dental caries, tooth pain, and gingivitis. They exclude wounds and broken teeth that could result from traumatic events, which are unlikely to be sensitive to access to office-based dental care. If the same patient made multiple visits to the ED, each visit was counted separately.

The primary dependent variable was the unadjusted county rate of ED visits by patients for nontraumatic dental conditions per 1,000 population ages 20–64. The rate of dental ED visits made by patients with Medicaid and the rate of visits made by patients with another type of insurance were calculated using the first-listed expected payer. We derived population denominators using the Area Health Resources Files.

Medicaid enrollment among adults by county was obtained for 2008, the most recent year available. These data from the Centers for Medicare and Medicaid Services are contained in the Area Health Resources Files. We adjusted this number to 2010 using state enrollment in 2008 and 2010.[20] Because the Area Health Resources Files counted enrollees ages 21–64, we obtained

Providing expanded dental benefits through Medicaid might not help improve access to dental care as much as advocates have hoped.

state-specific enrollment by age group[21] and applied another adjustment to estimate the number of enrollees ages 20–64. To determine the non-Medicaid population in each county, we subtracted the number of Medicaid enrollees from the total number of adults ages 20–64 from the 2010 census.

INDEPENDENT VARIABLES The Area Health Resources Files contained the number of professionally active dentists by county in 2010. *Professionally active dentists* are defined as active and licensed dentists whose primary occupation is related to dentistry. Dental provider density was calculated as the number of professionally active dentists per 10,000 county residents.

The files also identify dental Health Professional Shortage Areas (HPSAs). A county is designated as a *whole-county shortage area* if all of the following are true: It is a rational area for the delivery of dental services; the ratio of population to full-time-equivalent dentists is at least 5,000:1 (4,000:1 where there is an unusual need for services); and dental services in contiguous counties are overused, distant, or inaccessible. When a county does not meet these criteria but a population within it has access barriers, defined in more detail elsewhere,[22] the area where the population in question resides is designated as a *partial shortage area*.

We obtained other county-level characteristics from the Area Health Resources Files: the percentages of residents whose incomes were below the federal poverty level, who had Medicaid, who were younger than sixty-five and had no insurance, and who were members of minority groups (that is, members of all racial/ethnic groups except non-Hispanic whites); the number of EDs in the county per 100,000 population; and whether the county was urban (metropolitan or micropolitan) or rural (noncore).

Census regions were used to categorize all counties in each state in the Northeast, South, Midwest, or West. We also obtained state policies for 2008 and 2012 on dental coverage of nondisabled, nonpregnant adult Medicaid enrollees to determine what the policy was in 2010.[3,4]

DATA ANALYSIS We examined descriptive statistics and conducted *t*-tests to determine whether the average county-level rate of ED visits by patients for nontraumatic dental conditions differed according to dental provider density, dental HPSA status, dental coverage through Medicaid, and urban versus rural status. We also examined these associations using multivariate regression models for rate data. We exponentiated the parameter estimate from the model to obtain the rate ratio. For dental provider density, the rate ratio was calculated as the effect associated with increasing the number of dentists by two per 10,000 population. This level of increase was chosen because the HPSA guidelines define *shortage areas* as having fewer than two dentists per 10,000 population. All other rate ratios were calculated for a one-unit increase in the independent variable.

LIMITATIONS This study had several limitations. First, we could not compute standardized rates by payer because the Area Health Resources Files do not contain counts of Medicaid enrollees by age and sex.

Second, the files include in counts of Medicaid enrollees those who are enrolled in both Medicaid and Medicare. Dental ED visits among dually enrolled individuals were not categorized as Medicaid visits if Medicare was the first-listed payer, which could have led us to underestimate Medicaid-funded rates.

To examine the impact of these limitations, we first computed age- and sex-standardized rates among all payers and then examined rates among patients whose dental ED visit was dually paid for by Medicaid and Medicare for a subset of states with data on multiple payers. In both instances, we found that the results were similar to the results presented below and did not affect our conclusions.

Study Results

PATIENT CHARACTERISTICS The twenty-nine states in the study had 42,919,519 ED visits among adults ages 20–64 in 2010. Of those visits, 2.1 percent (881,954) were nontraumatic dental visits. A total of 876,040 nontraumatic dental visits had information on payer, and for 30.8 percent of them, Medicaid was the first-listed payer (Exhibit 1). Among visits made by patients with other types of insurance, 8.5 percent were paid by Medicare, 24.1 percent were paid by private

EXHIBIT 1

Characteristics Of Visits To The Emergency Department In 2010 By Patients Ages 20–64 With Nontraumatic Dental Conditions, By Payer

	Non-Medicaid visits		Medicaid visits	
Visit characteristic	**Number**	**Percent**	**Number**	**Percent**
All	606,155	69.2	269,885	30.8
PRIMARY EXPECTED PAYER				
Medicaid	—[a]	—[a]	269,885	100.0
Medicare	51,679	8.5	—[a]	—[a]
Private insurance	146,009	24.1	—[a]	—[a]
No insurance	375,599	62.0	—[a]	—[a]
Other	32,868	5.4	—[a]	—[a]
SEX OF PATIENT				
Male	332,064	54.8	83,915	31.1
Female	274,091	45.2	185,970	68.9
AGE OF PATIENT (YEARS)				
20–24	118,185	19.5	63,124	23.4
25–34	236,947	39.1	120,927	44.8
35–44	130,132	21.5	52,313	19.4
45–54	91,360	15.1	26,677	9.9
55–64	29,531	4.9	6,844	2.5
PATIENT COUNTY OF RESIDENCE				
Census region				
Northeast	120,757	19.9	51,189	32.8
Midwest	181,248	29.9	88,636	19.0
South	238,632	39.4	91,937	34.1
West	65,518	10.8	38,123	14.1
Urban	567,068	93.6	250,109	92.7
Dental HPSA				
Whole county	82,986	13.7	46,565	17.3
Partial county	412,568	68.1	185,699	68.8
No	110,601	18.3	37,621	13.9
State Medicaid covers expanded dental services	346,787	57.2	142,274	52.7
	Mean	**SD**	**Mean**	**SD**
Residents in minority groups (%)	31.7	(20.3)	29.4	(19.8)
Residents in poverty[b] (%)	14.3	(4.9)	14.3	(4.7)
Residents with Medicaid (%)	21.1	(8.1)	22.0	(7.8)
Residents with no insurance (%)	17.0	(5.1)	16.0	(5.3)
Emergency departments per 100,000 population	1.2	(1.5)	1.3	(1.5)
Dental providers per 10,000 population	5.4	(2.5)	5.3	(2.3)

SOURCE Authors' analysis of data for 2010 from the State Emergency Department Databases for twenty-nine states, linked to data from the Area Health Resources Files. **NOTES** 2008 county Medicaid enrollment was adjusted to 2010. Adults ages 20–64 with Medicare as their first-listed payer may be dually eligible for Medicaid and Medicare. "Expanded dental services" are defined in the text. HPSA is Health Professional Shortage Area. SD is standard deviation. [a]Not applicable. [b]Income below the federal poverty level.

insurance, and 62.0 percent were by patients with no insurance.

Dental ED visits made by patients with Medicaid were different from visits made by patients with other types of insurance with respect to patients' sex, age, and region. For example, patients residing in whole-county dental HPSAs made 17.3 percent of the visits paid by Medicaid, compared with 13.7 percent of visits paid by other payers (Exhibit 1). Dental ED visits by patients with Medicaid and by other patients were similar with regard to other characteristics, such as whether the patient lived in an urban county (over 90 percent for both Medicaid and non-Medicaid visits).

COUNTY CHARACTERISTICS Information on the counties included in this analysis can be found in the online Appendix.[23] Of the 1,794 counties in our study, 41.1 percent (738) were rural, and 40.2 percent (722) were in a state with emergency-only or no dental coverage through Medicaid. Twelve of the twenty-nine states included in the study offered emergency-only or no dental coverage through Medicaid.

Compared with urban counties, rural counties had lower rates of dental providers and were

EXHIBIT 2

Rates Of Emergency Department Visits For Nontraumatic Dental Conditions Per 1,000 Patients With Medicaid Ages 20–64, 2010

			Dental services provided by state Medicaid									
			Urban counties					Rural counties				
	All counties		Emergency only or none		Expanded			Emergency only or none		Expanded		
Characteristic	Rate	*p* value[a]	Rate	*p* value[a]	Rate	*p* value[a]	*p* value[b]	Rate	*p* value[a]	Rate	*p* value[a]	*p* value[b]
Mean unadjusted rate	17.4	—[c]	22.0	—[c]	17.8	—[c]	<0.01	17.0	—[c]	12.7	—[c]	<0.01
DENTAL HEALTH PROFESSIONAL SHORTAGE AREA												
Whole county	13.5	<0.01	15.7	<0.01	14.0	0.54	0.50	14.0	0.04	8.1	0.01	<0.01
Partial county	18.8	0.01	21.9	0.01	20.2	<0.01	0.22	18.2	0.64	14.1	0.08	0.02
No	16.8	Ref	28.6	Ref	15.2	Ref	<0.01	19.5	Ref	11.9	Ref	<0.01
DENTAL PROVIDER DENSITY (QUARTILE)												
1 (low)	17.9	0.13	23.9	0.03	15.7	0.25	<0.01	18.0	0.03	14.5	<0.01	0.08
2	17.9	0.11	24.3	<0.01	17.8	0.85	<0.01	18.1	0.05	13.1	<0.01	0.03
3	17.7	0.17	23.3	0.03	19.1	0.27	0.07	14.7	0.45	12.3	0.01	0.32
4 (high)	16.3	Ref	18.1	Ref	17.5	Ref	0.70	12.4	Ref	8.6	Ref	0.11

SOURCE Authors' analysis of average county-level unadjusted rates using data for 2010 from the State Emergency Department Databases for twenty-nine states, linked to data from the Area Health Resources Files. [a]Difference from the reference category, according to a chi-square test. [b]Difference from the mean in counties where no dental services or only emergency dental services are covered, according to a chi-square test. [c]Not applicable.

more likely to be designated as dental HPSAs. Compared with counties in states with expanded dental coverage through Medicaid, counties in states with emergency-only or no dental coverage through Medicaid had lower rates of dental providers, and more of those counties were designated as HPSAs (81 percent versus 61 percent).

COUNTY RATES OF DENTAL EMERGENCY DEPARTMENT VISITS

▶ **MEDICAID:** The mean county-level rate of ED visits for nontraumatic dental conditions made by patients with Medicaid was 17.4 per 1,000 Medicaid enrollees ages 20–64 (Exhibit 2). The Medicaid-funded rate was higher in urban counties than in rural ones. It was also higher in counties in states with emergency-only or no dental coverage through Medicaid than in counties in states with expanded coverage, both in urban areas and in rural ones.

In urban areas, the rate of dental ED visits by patients with Medicaid did not follow the expected pattern across dental HPSAs or levels of dental provider density. Instead, rates generally remained high in nonshortage areas and areas with higher density of dental providers.

In rural counties, however, higher dental provider density was associated with a lower rate of ED visits for nontraumatic dental problems by patients with Medicaid. Rates generally decreased with each quartile increase in dental provider density. They decreased from 18.0 to 12.4 in counties with no or emergency-only dental coverage through Medicaid and from 14.5 to 8.6 in counties with expanded coverage.

▶ **OTHER INSURANCE:** Rates of ED visits for nontraumatic dental conditions made by patients with a type of insurance other than Medicaid can be found in the Appendix.[23] Rates were higher in urban than in rural counties and tended to decrease as dental provider density increased.

REGRESSION ANALYSES

▶ **MEDICAID:** In our multivariate regression models, we used dental provider density in the models instead of HPSA status because shortage areas were not correlated with lower rates in the descriptive analysis. After we adjusted for other factors, we found that increasing the number of dental providers by two per 10,000 population was associated with a reduced rate of dental ED visits by patients with Medicaid (rate ratio: 0.96; 95% confidence interval: 0.92, 1.00) (Exhibit 3).

Counties in states that provided expanded dental coverage through Medicaid had lower rates of dental ED visits by patients with Medicaid, compared with counties in states with emergency-only or no dental coverage through Medicaid. However, the association was not significant after other factors were adjusted for (rate ratio: 0.77; 95% CI: 0.46, 1.28). When we stratified by location, dental provider density was associated with lower rates in rural counties (rate ratio: 0.89; 95% CI: 0.82, 0.97), but not in urban counties.

▶ **OTHER INSURANCE:** After we adjusted for other factors, we found that dental provider density was not associated with the rate of ED visits for nontraumatic dental conditions by patients with other types of insurance or no insurance (see the Appendix).[23]

EXHIBIT 3

Associations Between County-Level Factors And Rates Of Nontraumatic Dental Emergency Department (ED) Visits By Patients With Medicaid, 2010

	All counties		Urban counties		Rural counties	
	RR	95% CI	RR	95% CI	RR	95% CI
Dental provider density	0.96	0.92, 1.00[a]	0.98	0.94, 1.03	0.89	0.82, 0.97
Urban status	1.38	1.23, 1.54	—[b]	—[b]	—[b]	—[b]
Expanded Medicaid dental coverage	0.77	0.46, 1.28	0.75	0.43, 1.32	0.78	0.50, 1.22
Percentage of residents						
In a minority group	0.99	0.98, 0.99	0.99	0.98, 0.99	0.99	0.98, 1.00
In poverty	1.01	0.99, 1.03	1.02	1.00, 1.04	0.98	0.96, 1.01
With Medicaid	1.00	0.99, 1.02	1.00	0.98, 1.02	1.01	0.99, 1.03
With no insurance	1.00	0.98, 1.03	0.99	0.97, 1.02	1.03	0.99, 1.06
Number of EDs	0.98	0.97, 1.00	1.01	0.98, 1.04	0.98	0.97, 0.99
Census region						
Northeast	1.08	0.72, 1.62	1.09	0.73, 1.64	1.06	0.46, 2.42
Midwest	Ref	—[b]	Ref	—[b]	Ref	—[b]
South	1.13	0.69, 1.84	1.17	0.67, 2.01	1.15	0.75, 1.77
West	0.75	0.47, 1.21	0.74	0.41, 1.33	0.82	0.53, 1.24

SOURCE Authors' analysis of data for 2010 from the State Emergency Department Databases for twenty-nine states, linked to data from the Area Health Resources Files. **NOTES** The exhibit shows results from multivariate regression models. The rate ratio (RR) for dental provider density was calculated as the ratio of rates associated with increasing the supply by two dentists per 10,000 population; all other RRs are associated with a one-unit increase in the independent variable. People "in poverty" are those whose income is below the federal poverty level. [a]Confidence interval (CI): 0.924, 0.996; $p < 0.05$. [b]Not applicable.

Discussion

A larger supply of dentists was associated with lower rates of Medicaid-funded ED visits by patients with nontraumatic dental conditions in rural counties but not in urban counties, where over 90 percent of all dental ED visits occurred. The rate of Medicaid-funded ED visits by patients with nontraumatic dental conditions was lower in states that provided expanded dental coverage through Medicaid, compared with states that provided emergency-only or no dental coverage through Medicaid. However, this difference was not significant after other factors were adjusted for. The fact that expanded dental coverage and supply of dentists were not associated with fewer dental ED visits suggests that, in and of itself, providing expanded dental benefits through Medicaid might not help improve access to dental care as much as advocates have hoped.

There could be several explanations for our findings, including constraint in the supply of dentists who accept Medicaid; the presence of other service options for patients seeking dental care, such as those available through some federally qualified health centers; excessive travel costs associated with dental care outside the ED; or a continued pattern of ED use despite having insurance, which has been observed for other types of medical care.[24,25]

Approaches to reducing ED use for dental conditions vary. Many current efforts involve volunteer or charity care (such as waived or reduced fees for low-income individuals and care provided by trainees) and are funded by grants, so that large-scale implementation may prove challenging.

A limited number of pilot programs have shown promise in their ability to reduce dental ED visits by offering immediate referrals to an on-site dental clinic[26] or expanding coverage using telehealth and midlevel dental providers, who receive lower salaries than dentists but who are trained to provide both preventive and restorative care, such as fillings and minor extractions.[27] Health plans or primary care practices, especially those that serve low-income patients, might consider embedding midlevel dental providers to ensure that basic preventive and acute dental care can be provided for more people at a lower cost, compared with costs at health plans and primary care practices that rely solely on dentists to provide these services. Incentivizing payers or providers to offer or refer patients to preventive dental care—similar to standard practice for other preventive care, such as colon and cervical cancer screening—might also expand access. To implement these types of solutions, which may require alterations in the way dental services are bought and paid for in the United States, dental care must be viewed not as an optional add-on but as an integral part of an individual's overall health care.

Research has consistently shown that Medicaid enrollees have difficulty finding a provider

who accepts their insurance.[12,13] Under these circumstances, neither increasing dental provider density nor making dental coverage available to people who do not have it would reduce the use of EDs for dental problems.

We did not have data on the number of providers who accepted Medicaid. However, we found that rates of dental ED visits made by patients with Medicaid remained high in urban areas, even in states with expanded dental coverage through Medicaid and in counties with an adequate number of dental providers.

Studies suggest that dentists in urban areas may be less likely than dentists in rural areas to accept Medicaid.[28,29] Although the reasons for this are unknown, rural providers might be less likely to turn patients away because they are the only source of care in their community.[28] Dentists who choose to practice in densely populated urban areas because they represent greater financial opportunity than less populated areas[30] might be less likely to accept Medicaid, compared with dentists who choose to practice in rural areas. Recruiting dentists who are more likely to serve patients with Medicaid—such as dentists from minority racial and ethnic groups and those in pediatric specialties[28,31,32]—might increase the dental workforce in underserved areas.[30]

Previous studies have also suggested that patients with Medicaid often continue to use the ED for medical problems despite having health insurance.[24,25] The same may be true in the case of dental problems. Reasons cited for using the ED for medical care include difficulty reaching a provider during normal business hours[24] and perceptions that EDs offer care of higher quality.[33]

Previous research suggests that establishing a relationship with a physician, the availability of evening appointments, less crowded offices, shorter wait times, and the presence of community health centers might reduce reliance on the ED for general medical care.[34] Future research should examine whether these factors also reduce dental ED visits.

Partnerships between federally qualified health centers and dentists could improve access to dental care for patients with Medicaid. In 2009 Congress determined that these centers could contract with private dentists to provide dental services to their patients. Contracted dentists can provide care to patients with Medicaid without registering as a provider who accepts Medicaid, and the dentists are paid through the health center rather than Medicaid.[35]

However, some Medicaid beneficiaries do not use federally qualified health centers. In 2010 these centers served only 16 percent of the Medicaid population,[36] despite the fact that the health centers are more likely than other primary care settings to have appointments available for patients with Medicaid.[37]

Additionally, federally qualified health centers are not available in every community, and many health center sites do not provide dental services. In 2013 there were over 1,200 federally funded federally qualified health centers in the United States.[38] Although 75 percent of the funded health centers provided some on-site dental care, many have multiple sites and do not necessarily provide dental services at all locations.[39] Future studies should examine whether the centers reduce dental ED visits among Medicaid beneficiaries in areas where the supply of dental providers, particularly those who accept Medicaid, is low.

Most EDs do not have a dentist or dental clinic on-site and therefore can do little for patients seeking dental care except prescribe pain medications and antibiotics. Research has shown that many patients who visit EDs with dental complaints are prescribed medication and referred elsewhere.[40,41] A survey of adults who sought treatment for a dental problem in the previous year found that 7 percent of respondents had contacted an ED and 14 percent had contacted a physician. Over 90 percent of the respondents who contacted an ED or physician ultimately followed up with a dentist.[40]

Our study focused on patterns of ED use in the context of the dental delivery system before implementation of the ACA, instead of on the outcomes of care or subsequent contact with dental providers. More research is needed to examine the impact of the ACA on access to dental care and ED use for dental conditions, as well as consequences for patient outcomes.

Conclusion

In 2010 ED visits for nontraumatic dental problems accounted for 2.1 percent of all ED visits in this multistate study. Most ED visits for dental conditions were funded by Medicaid or made by uninsured patients, some of whom have become eligible for Medicaid under the ACA. The American Dental Association estimates that approximately 8.3 million adults are eligible to gain expanded dental benefits through the expansion of Medicaid under the ACA.[42]

It is not clear how these newly insured individuals will be absorbed into the current dental delivery system. We found no significant relationship between dental provider density, Medicaid dental coverage, and nontraumatic dental ED visits by patients in urban areas, where most such visits occurred. These findings are an im-

8.3

Million

According to the American Dental Association, about 8.3 million adults are eligible to gain expanded dental benefits under the ACA.

portant addition to the literature because they suggest that simply providing expanded dental coverage to Medicaid recipients might not translate into lower rates of dental ED visits. Moreover, more than 80 percent of counties with emergency-only or no dental coverage through Medicaid were designated as dental Health Professional Shortage Areas. Even if Medicaid dental coverage were expanded in these areas, enrollees could have trouble finding a provider.

EDs will likely continue to provide care to individuals without adequate access to community-based dental care unless new dental service delivery models are developed to expand access in underserved areas and more dental providers begin to accept Medicaid under the ACA. ■

Funding was provided by the Agency for Healthcare Research and Quality (AHRQ) (Contract No. HHSA290201200003I). Maria Raven was supported by AHRQ under Award No. K12HS021700. The findings and conclusions in this article are those of the authors, who are responsible for its content, and do not necessarily represent the views of AHRQ or the Department of Health and Human Services. The authors acknowledge the following team members and federal agency staff members for their participation in the development and testing of conceptual models, indicators, and supporting materials: at AHRQ, Pam Owens and Carol Stocks; at Stanford University, Kit Delgado, Lauren Riendeau, Eric Schmidt, Ellen Schultz, Karey Shuhendler, and Ewen Wang; at Truven Health Analytics, Marguerite Barrett, Rosanna Coffey, Bob Houchens, and Audrey Weiss. In addition, the authors thank the members of the various internal expert, stakeholder, and validation panels that participated in this work for their review of the materials. Finally, the authors acknowledge Nils Nordstrand of Truven Health Analytics for analyzing the study data. The analysis files used to develop and test the emergency department Prevention Quality Indicator software included records from the 2008–10 State Emergency Department Databases (SEDD) and State Inpatient Databases (SID). The authors acknowledge the Healthcare Cost and Utilization Project (HCUP) partner organizations that participated in the HCUP 2008–10 SEDD and SID (see http://www.hcup-us.ahrq.gov/partners.jsp).

NOTES

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