

Reasons for Visits to Emergency Departments for Medicaid and State Children's Health Insurance Program Patients: United States, 2004

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Abstract

Objective: To describe the primary reason for visits to hospital emergency departments (EDs) by patients whose expected source of payment was Medicaid/State Children's Health Insurance Program (SCHIP). The primary reason for an ED visit is particularly important because it reflects the patients' perspective of the problem that necessitated a visit to the ED.

Study Design: Retrospective study.

Methods: Data for 2004 from the National Hospital Ambulatory Medical Care Survey (NHAMCS) were analyzed for reasons for ED visits. NHAMCS is a national probability sample survey of visits to hospital EDs and outpatient departments of non-federal, short-stay, and general hospitals in the United States. Data are collected annually and are weighted to generate national estimates.

Results: An estimated 24.5 million visits were made to hospital EDs in 2004 by patients whose expected method of payment was Medicaid/SCHIP (annual rate = 795 visits/1,000 Medicaid/SCHIP enrollees). Medicaid/SCHIP enrollees aged 25-44 years recorded the highest visit rate at 1,281 visits/1,000 persons. The rate of visits for African American Medicaid/SCHIP enrollees was 36% higher than that of whites (1,016 vs. 746 visits, respectively/1,000 persons). Nine of the 10 leading reasons for ED visits are similar for both Medicaid/SCHIP enrollees and the general population. Among Medicaid/SCHIP enrollees, the leading reason for visits include fever (54 visits/1,000 persons), stomach pain (37 visits/1,000 persons), and cough (35 visits/1,000 persons). For the general population, the leading reasons for visits include stomach pain (19 visits/1,000 persons), chest pain (19 visits/1,000 persons), and fever (14 visits/1,000 persons). For patients with an expected payment source other than Medicaid/SCHIP, 7 of the 10 leading reasons for visits are similar to Medicaid/SCHIP enrollees. For this category, the leading reason for visits are chest pain (18 visits/1,000 persons), stomach pain (16 visits/1,000 persons), and fever (10 visits/1,000 persons).

Conclusion: Although Medicaid/SCHIP enrollees shared the same leading reasons with the general population in their visits to EDs, they had higher rates of visits for these reasons. It is possible that the general population is making a higher proportion of visits for the same reasons to settings other than EDs, relative to the Medicaid population. Differences in the age distribution of these populations could also be a factor in the observed visit rates.

Keywords: emergency departments; reason for visits; National Hospital Ambulatory Medical Care Survey; Medicaid; SCHIP

Emergency department (ED) usage is a key indicator of the performance of the health care system. ED use can be used to evaluate health policies that affect access to care as well as prevent illness and injuries. Medicaid/State Children's Health Insurance Program (SCHIP) are two federal/state programs for low-income people or populations that are categorically eligible for services. Nationally, Medicaid/SCHIP recipients are of particular concern because one of every five visits to EDs is made by persons enrolled in these programs.¹ During 1994-2004, enrollees in the programs increased from an estimated 14

million to 31 million.² In addition, Medicaid expenditures account for the largest and fastest growing category of state expenditures, representing 21.9% in 2004.³ Proposals being considered in the US Congress have called for cuts of up to \$10 billion over five years; funding reductions in Medicaid could enlarge state deficit gaps and force states and localities to make program cuts and increase taxes.³

Anecdotal reports have described Medicaid/SCHIP recipients and their use of health services.^{4,5} For example, in their study of access to pediatric care and ED, Johnson and Rimsza indicated that children covered by Medicaid

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were less likely to use the ED than children with private insurance.⁴ However, Phelps and colleagues, in their study of factors associated with ED utilization for nonurgent pediatric problems, showed that those with Medicaid insurance were more likely to view the ED as the usual site of care.⁵ Nationwide, ED visit rates were higher among Medicaid/SCHIP enrollees in comparison with Medicare, those with no insurance, and those with private insurance.¹ Nationally, ED visits remain a major public health concern because estimated visits increased from 93.4 million in 1994 to 110 million visits in 2004.¹ Reasons for the continuing rise in ED visits remain elusive,^{6,7} and not all the increases in ED visits can be attributable to increases in the US population.

Medicaid enrollees have been reported to comprise a disproportionate share of ED visits for asthma, chronic obstructive pulmonary disease, congestive heart failure, diabetes, and hypertension,⁸ and enrollees have been cited as responsible for a high rate of inappropriate use of EDs.⁹ Previous research⁸ has been limited to the ambulatory care-sensitive conditions to gain knowledge into preventable hospitalizations, and the Centers for Disease Control and Prevention's (CDC) National Center for Health Statistics' (NCHS) publications¹⁰ currently does not specifically address reasons for visits among the Medicaid population. To fill in part of the gap in what we know about emergency room use, the author analyzed the emergency department component of the National Hospital Ambulatory Medical Care Survey (NHAMCS-ED) to obtain information about what the most common symptoms are that present in the ED for Medicaid patients.

Methods

Data for this report are derived from the 2004 NHAMCS-ED survey and were collected from December 29, 2003 through December 26, 2004.¹ NHAMCS-ED, an annual survey conducted by CDC's NCHS, is a national probability sample survey of visits to hospital emergency and outpatient departments of non-federal, short-stay, and general hospitals in the United States.¹ NHAMCS uses a four-stage probability design of primary sampling units, hospitals that had EDs, emergency service areas within EDs and clinics, and patient visits within emergency service areas and clinics.¹

In the 2004 survey, 457 emergency service areas participated. A total of 452 of the emergency service areas responded fully, yielding a response rate of 97% and an overall unweighted two-stage sampling response rate of 89%.¹ At each sampled ED, staff were asked to complete encounter forms for a systematic random sample of patient visits occurring during a randomly assigned four-week reporting period. Up to three reasons for an ED visit could be reported, using the patient's own words if possible. Text entries were converted to "reason for visit codes" by using a system developed by the American Medical Records Association under the auspices of CDC/NCHS.¹¹ Reason for visit is particularly important because it reflects the

patients' concern that necessitated a visit. In addition, this information assists in patient triage (resource allocation), quality assurance, and ED management. In 2004, a total of 36,589 patient record forms were completed at EDs.¹

Data are weighted to generate national estimates by using three estimation processes: inflating reciprocals of the sampling selection probabilities, adjusting for non-response, and applying a population weighting ratio adjustment.¹ This multistage estimation procedure produces unbiased estimates. A total of 8,707 patient record forms for which Medicaid/SCHIP was listed as the expected source of payment were identified. The primary reason-for-visit field recorded per patient at visit was used in this analysis.

Visit rates were calculated by age group, sex, race, census region, and for leading reason for visit for Medicaid/SCHIP enrollees. A comparative table, reflecting leading reasons for visits, is presented for Medicaid/SCHIP enrollees, general population, and patients with an expected payment source other than Medicaid/SCHIP. Denominators for the calculation of rates were provided by CDC/NCHS.¹² Appropriate 95% confidence intervals for the rates were determined by calculating the relative standard errors for the estimates of visits, using the coefficients provided by NCHS.

Data presented in this research include Medicaid and the State Children's Health Insurance Program (SCHIP) visits to emergency departments. Medicaid and SCHIP were combined because in approximately one-third of states, SCHIP is a Medicaid expansion program; in another one-third, SCHIP is a stand-alone program; and in the last third, it is a combination of both. Charges paid in part or in full by this plan include payments made directly to the hospital and payments reimbursed to the patient. In addition, these charges include those covered under a Medicaid-sponsored prepaid plan or SCHIP.

Results

Total Visits for Medicaid/SCHIP Enrollees

An estimated 24.5 million visits met the definition of Medicaid/SCHIP as a primary source of payment (see Table 1). This number represents 22% of the estimated 110 million ED visits in 2004. Eighty-nine percent of Medicaid/SCHIP enrollee visits relate to initial visits, and 7% were follow-up visits. ED visit rate for Medicaid/SCHIP enrollees was significantly higher than ED visits nationwide (795 vs. 382 visits, respectively/1,000 persons).

Although children under the age of 15 had the highest percentage of visits (40%), adults aged 25-44 had the highest rate of visits (1,281 visits/1,000 persons). The rate of visits for females was slightly higher than the rate for males (822 vs. 757 visits, respectively/1,000 persons). Whites made approximately 63% of ED visits; however, the visit rate was significantly higher among African Americans than among whites (1,016 visits vs. 746 visits, respectively/1,000 persons). An estimated 10 million ED visits occurred at southern US hospitals (41%), but the highest rate of ED visits was recorded

Table 1.
Number and Rate of Visits to Hospital Emergency Departments (EDs) for all Payment Categories and for Those With an Expected Pay Source of Medicaid/SCHIP, National Hospital Ambulatory Medical Care Survey (NHAMCS) — United States, 2004

Characteristic	Estimated number of visits for all payments to EDs	Rate of visits to EDs/1,000 persons for all payment methods ^a (95% confidence interval)	Estimated number of Medicaid/SCHIP-paid visits to EDs	Rate of visits to EDs/1,000 persons covered by Medicaid/SCHIP ^b (95% confidence interval)	Estimated number of non-Medicaid/SCHIP-paid visits to EDs	Rate of visits to EDs/1,000 persons not covered by Medicaid/SCHIP ^c (95% confidence interval)
Age group (years)						
0–14	22,942,000	378 (324–432)	9,882,667	637 (602–637)	13,050,000	289 (273–305)
15–24	17,931,000	441 (393–489)	4,280,869	903 (853–953)	13,650,000	381 (360–402)
25–44	32,105,000	391 (351–431)	6,226,771	1,281 (1,211–1,351)	25,871,000	335 (316–354)
45–64	21,506,000	306 (276–336)	3,321,014	1,026 (975–1,077)	18,184,000	272 (257–287)
≥ 65	15,732,000	454 (410–498)	778,239	322 (306–338)	14,954,000	465 (439–491)
Sex						
Female	59,896,000	406 (366–446)	14,590,659	822 (781–863)	45,307,000	350 (331–369)
Male	50,320,000	357 (323–391)	9,898,901	757 (719–795)	40,420,000	316 (299–333)
Race^d						
White	81,762,000	352 (316–370)	15,417,370	746 (709–783)	66,344,000	310 (293–327)
African American	24,898,000	689 (595–783)	8,173,934	1,016 (965–1,061)	16,724,000	603 (570–636)
Region						
South	41,150,000	397 (323–471)	10,044,853	868 (825–911)	31,105,000	341 (322–360)
Midwest	26,806,000	414 (377–488)	5,440,782	908 (863–953)	21,365,000	337 (318–356)
Northeast	22,274,000	414 (334–494)	5,203,061	966 (863–953)	17,071,000	358 (338–378)
West	19,986,000	301 (245–357)	3,800,864	483 (459–507)	16,185,000	293 (277–309)
Total	110,216,000	382 (347–417)	24,489,560	795 (755–835)	85,726,000	333 (314–352)

a. Denominator is the noninstitutionalized civilian population and includes the Medicaid/SCHIP population.

b. Denominator is persons covered by Medicaid/SCHIP.

c. Denominator is persons not covered by Medicaid/SCHIP.

d. Data not displayed for other race category (does not meet reporting requirement).

in the northeast (966 visits/1,000 persons). The lowest rate of visits was in the west (483 visits/1,000 persons).

Medicaid Enrollees' Five Leading Reasons for ED Visits (see Tables 2 and 3, pages 126 and 127)

Fever: Seven percent of ED visits for this population related to fever, and 92% of fever-related visits were among those under 15 years of age. Fever is the single highest reason for ED visits among those under 15 years of age, representing 16% of their visits (99 visits/1,000 persons). Variation in rates of fever-related visits existed by race, sex, and geographic region. The fever-related visit rate was higher among African Americans compared with whites (65 vs. 51 visits, respectively/1,000 persons). The visit rate for females was 70% higher than for males (46 vs. 27 visits, respectively/1,000 persons). The south recorded

the highest visit rate compared with other regions (78 visits/1,000 persons).

Stomach and abdominal pain: This condition represented 5% of total visits, with the highest visit rate among persons aged 25–44 years (84 visits/1,000 persons). The visit rate was higher among African Americans as compared with whites (44 vs. 37 visits, respectively/1,000 persons) and among females (49 visits/1,000 persons).

Cough: Four percent of visits were related to cough, and the highest rate of visits was among youth under the age of 15 (49 visits/1,000 persons). Eight percent of visits among those under the age of 15 related to cough. For all Medicaid/SCHIP enrollees, visit rates were higher among African Americans than whites (40 vs. 36 visits, respectively/1,000 persons) and higher among females than males (49 vs. 9 visits, respectively/1,000 persons).

Chest pain: Visits relating to chest pain represented 4% of Medicaid/SCHIP enrollee ED visits. Adults aged 45–64 years recorded the highest visit rate (96 visits/1,000 persons). Sixty percent of visits were among whites, but the visit rate was higher among African Americans than whites (44 vs. 27 visits, respectively/1,000 persons). Females recorded the highest percentage of visits (64%) and had a higher visit rate than males (37 vs. 11 visits, respectively/1,000 persons).

Vomiting: Visits relating to vomiting represent 3% of visits, with 75% of visits recorded among youth aged under 15 years of age. For youth under the age of 15, vomiting visits represents 6% of ED visits among Medicaid/SCHIP enrollees. The highest rate of visits was among youth aged under 15 years of age (40 visits/1,000 persons). As with the majority of other conditions, the visit rate was higher among African Americans compared with whites (40 vs. 24/1,000 persons). Females had the highest rate of visits compared with males (21 vs. 15 visits, respectively/1,000 persons). By region, the northeast had the highest rate of visits (34 visits/1,000 persons).

National Data Versus Medicaid Specific Visit Data

As presented in Table 2, after examining nationwide and Medicaid/SCHIP enrollee-specific visits, most of the 10 important reasons for visits are similar for the two payment-type groups: fever, abdominal pain, cough, chest pain, vomiting, headache, ear infection, sore throat, and back symptoms. The 10 leading reasons represent about one-third of Medicaid/SCHIP enrollee visits and 29% among the general population. However, visit rates were markedly higher among Medicaid/SCHIP enrollees for each reason of visit.

Table 2.
Ten Leading Primary Reasons for Visits to Emergency Departments (EDs) for United States and Medicaid/SCHIP Enrollees per 1,000 Persons, NHAMCS — United States, 2004

Primary reason for visit	Estimated visits (%)	Rate of visits/1,000 persons
United States, Total^a		
Chest pain	5,550,000 (5.0)	19
Stomach and abdominal pain	5,356,000 (4.9)	19
Fever	4,167,000 (3.8)	14
Headache	2,895,000 (2.6)	10
Back problems	2,838,000 (2.6)	10
Cough	2,702,000 (2.5)	9
Shortness of breath	2,553,000 (2.3)	9
Vomiting	2,524,000 (2.3)	9
Sore throat	1,811,000 (1.6)	6
Earache or ear infection	1,706,000 (1.5)	6
All other reasons	78,118,067 (70.9)	382
Medicaid/SCHIP enrollees^b		
Fever	1,676,646 (6.7)	54
Stomach and abdominal pain	1,123,615 (4.5)	37
Cough	1,086,297 (4.4)	35
Chest pain	931,532 (3.7)	30
Vomiting	832,756 (3.3)	27
Headache	608,218 (2.4)	20
Earache or ear infection	576,345 (2.3)	19
Skin rash	555,034 (2.2)	18
Sore throat	495,267 (2.0)	16
Back symptoms	490,560 (2.0)	16
Shortness of breath	435,228 (1.7)	14
All other reasons	16,113,290 (64.6)	523
Other than Medicaid/SCHIP^c		
Chest pain	4,619,000 (5.4)	18
Stomach and abdominal pain	4,233,000 (4.9)	16
Fever	2,490,000 (2.9)	10
Back symptoms	2,347,000 (2.7)	9
Headache	2,287,000 (2.7)	9
Shortness of breath	2,118,000 (2.5)	8
Upper extremity laceration	1,790,000 (2.1)	7
Accidents/injury (e.g., fall)	1,738,000 (2.0)	7
Vomiting	1,691,000 (2.0)	7
Cough	1,616,000 (1.9)	6
All other reasons	60,799,000 (70.9)	333

a. Denominator is the noninstitutionalized civilian population, and includes the Medicaid/SCHIP population.

b. Denominator is persons covered by Medicaid/SCHIP.

c. Denominator is persons not covered by Medicaid/SCHIP.

National Data, Patients with an Expected Payment Source Other than Medicaid/SCHIP Versus Medicaid Specific Visit Data

When examined in tandem, fever and stomach pain were most common among these three population categories. While noteworthy differences were noted in visit rates for these conditions, those exhibited by fever (among < 15 years old), race, gender, and region are particularly important among Medicaid/SCHIP enrollees (see Tables 3-5, pages 127-129).

Discussion

Examining the reason-for-visits data is critical as an approach to educate users about emergency departments, identify individual risk factors, intensify early detection and control of risk factors, and reduce risk. A major finding of the research reported here is that the leading reasons for visiting EDs is not different for Medicaid/SCHIP patients and the general population. Among Medicaid/SCHIP enrollees, fever, cough, and vomiting visit rates were highest among youth under 15 years of age; stomach pain visit rates are highest among persons aged 25-44 years; and chest pain visit rates are highest among those aged 45-64 years. For the five leading reasons for visits, rates were higher among African Americans and females. Although visit rates were generally higher among Medicaid/SCHIP enrollees compared with the general population, factors

that contribute to these findings are multifaceted. Lowe and colleagues recently looked at the association between primary care characteristics and ED use among Medicaid managed care organizations and concluded that patients enrolled in primary care practices with extended evening coverage were 20% less likely to use the ED. The authors found that focusing on system issues (e.g., primary care access, scope of services, etc.) had the propensity to reduce ED use.¹³ A government report also recently acknowledged that crowding continues to be a major problem in the EDs and that the primary reason was the inability of hospitals to move patients from EDs to inpatient beds,¹⁴ further attesting to the system issues identified by Lowe and colleagues.¹³ In his recent review of ED visits, Bernstein concluded that insurance status, race, and ethnicity are minor determinants of ED use and that health policy goals should focus on accessibility, convenience, and high quality of care in all settings.¹⁵ Irrespective of these factors, efforts should be directed to the subgroups with high visit rates.

This study has multiple implications for health care policies and practice. First, the extent to which the lack of a statewide electronic data system impedes ED performance measures and indicators across multiple states should be studied. This is of particular importance to Medicaid/SCHIP enrollees both in metropolitan and rural areas. According to the estimates generated in the current study, 86% of visits

Table 3. Rates^a of Emergency Department Visits for Medicaid/SCHIP Enrollees per 1,000 Persons for Primary Leading Reason for Visit, by Age Group, Race, Sex, and Region, NHAMCS — United States, 2004

	Fever	Stomach and abdominal pain	Cough	Chest pain	Vomiting
Age group (years)					
< 15	99	11	49	3	40
15-24	9	65	16	32	14
25-44	9	84	28	72	22
45-64	12	62	27	96	9
≥ 65	^b	15	12	28	^b
Race					
White	51	37	36	27	24
African American	65	44	40	44	40
Sex					
Female	46	49	33	37	21
Male	27	9	16	11	15
Region					
Northeast	47	43	44	38	34
Midwest	48	48	34	39	33
South	78	37	45	31	31
West	29	23	17	18	12

a. Denominator is persons covered by Medicaid/SCHIP.

b. Does not meet reporting requirements.

Table 4.
Rates^a of Emergency Department Visits for All Payment Enrollees per 1,000 Persons for Primary Leading Reason for Visit, by Age Group, Race, Sex, and Region, NHAMCS — United States, 2004

	Chest pain	Stomach and abdominal pain	Fever	Headache	Back problems
Age group (years)					
< 15	2	9	52	5	1
15–24	13	29	6	13	11
25–44	21	23	3	15	15
45–64	27	16	3	8	11
≥ 65	35	19	7	8	9
Race					
White	17	17	13	8	9
African American	37	31	27	23	16
Sex					
Female	20	25	14	13	10
Male	19	12	15	7	10
Region					
Northeast	18	17	12	9	10
Midwest	19	19	14	10	9
South	21	19	18	12	12
West	17	20	11	8	7

a. Denominator is the noninstitutionalized civilian population and includes the Medicaid/SCHIP population.

(20,962,663 visits) were from the metropolitan standard areas. Targeted surveys of subpopulation groups in states lacking electronic ED data should be encouraged because population characteristics might be different from the national and regional data reported in this study. Only 26 states have electronic statewide ED data systems.¹⁶

Second, although there may be myriad alternative explanations for the underlying results reported in this report, there are numerous conflicting studies on the impact of outpatient services and ED use in the literature. Weber and colleagues recently remarked that the success of efforts to decrease ED use might depend on improving delivery of outpatient care.⁶ It should be noted that this study did not provide an indication of how providing health insurance to an individual affects a person's health status. The data analyzed in this study did not contain an empirical measure of the health status of those persons who go to the ED, nor did it assess how an empirical measure of the health status of an individual who is uninsured changes after he/she is provided health insurance.

Third, the finding of higher visit rates for all visit reasons by females is interesting and cannot be explained by the data captured in the surveillance system. Although rates of hospitalizations are higher for females aged 18–44 years because of pregnancy and childbirth,¹⁷ the reasons for visits identified in this study reveal the need for future

research to address why women use the ED more than men. Just because women use the ED more does not mean it is inappropriate; the same argument applies to ED use among Medicaid enrollees. There are three broad possibilities:

- 1) Medicaid/SCHIP enrollees (or women, analogously) are overusing the ED.
- 2) Non-Medicaid/SCHIP enrollees (or women, analogously) are underusing the ED.
- 3) Medicaid/SCHIP enrollees (or women) are simply higher risk and sicker, so they are appropriately using the ED more than non-Medicaid individuals.

Fourth, the lower visit rates identified among adults over age 65 may reflect availability of the Medicare payment plan, which may prevent the need to go to the ED for treatment.

Lastly, the reason for markedly different results in visit rates for Medicaid/SCHIP enrollees and the general population could be partly explained by the different age distributions. For example, 50% of Medicaid/SCHIP enrollees are under 15 years old, in comparison to the general population (21%) and patients with an expected payment source other than Medicaid/SCHIP (18%) for this age category. The high visit rates for fever transcends race, gender, and region even when the Medicaid/SCHIP population is compared to the other populations.

Table 5.
Rates^a of Emergency Department Visits for Other than Medicaid/SCHIP Enrollees per 1,000 Persons for Primary Leading Reason for Visit, by Age Group, Race, Sex, and Region, NHAMCS — United States, 2004

	Chest pain	Stomach and abdominal pain	Fever	Back problems	Headache
Age group (years)					
< 15	2	8	36	1	5
15–24	10	24	6	9	10
25–44	18	19	3	13	13
45–64	24	13	3	10	7
≥ 65	36	19	7	9	7
Race					
White	16	16	9	9	8
African American	35	27	16	15	22
Sex					
Female	18	22	9	9	11
Male	18	11	10	15	7
Region					
Northeast	16	14	8	9	8
Midwest	18	16	11	9	9
South	20	16	11	11	11
West	17	19	8	7	7

a. Denominator is the noninstitutionalized civilian population, and excludes the Medicaid/SCHIP population.

This study also has certain limitations. First, because of the NHAMCS design, state-level data are unavailable. Second, an item in the survey asks for “primary expected source of payment” and that is what was used in this research. It is possible that the primary expected source of payment was different from who eventually paid for the visit. Third, a difference exists between the patient’s reason for visiting the ED and the final diagnosis. The reason is useful in understanding what caused the patient to come to the ED, but the diagnosis typically reveals what the physician’s opinion is regarding the ailment. Fourth, this study did not determine appropriate use or misuse of EDs. Previous research has indicated that Medicaid/SCHIP enrollees were more likely to use EDs as the usual site of care, despite the fact that visits to the ED for non-urgent conditions can be managed by primary care providers.⁵ Access to care has been associated with decreased ED usage, regardless of insurance status.⁴ However, examining how to keep patients satisfied with their usual source of care, which Sarver and colleagues reported are more likely to contribute to non-urgent ED visits,¹⁸ should be studied. Finally, multivariate

regression analysis could have been used to identify what parts of the increased rates is due to Medicaid/SCHIP, as opposed to numerous covariates such as age group, race, region, metropolitan vs. rural, etc. In addition, it would also be interesting to look at the difference between all non-Medicaid/SCHIP patients vs. Medicaid/SCHIP payments and statistically test difference in means. Separate research is looking at these important research methods.

Although NHAMCS-ED provides accurate data regarding the differences in health status, access to care, and health services experienced by multiple population groups, state epidemiologists and program directors should identify and focus on specific indicators amenable to change at their policy or program level (e.g., quality of care, state and local level estimates, strengthening health promotion and disease prevention, and expanding health education opportunities). Additionally, the recent requirement regarding citizenship documentation for Medicaid/SCHIP enrollment which has resulted in enrollment declines in several states should be examined.¹⁹ **NCMJ**

REFERENCES

1. McCaig LF, Nawar EW. *National Hospital Ambulatory Medical Care Survey: 2004 Emergency Department Summary*. Hyattsville, MD: US Dept of Health and Human Services; 2006. Advance Data from Vital and Health Statistics No. 372.
2. National Center for Health Statistics. *Health, United States, 2006*. Hyattsville, MD: US Dept of Health and Human Services; 2006.
3. Burton A, Campion D, Cohn D, et al. *State of the States: Finding Their Own Way*. Washington, DC: AcademyHealth; 2006. [http://www.statecoverage.org/files/SCI State of the States 2006.pdf](http://www.statecoverage.org/files/SCI%20State%20of%20the%20States%202006.pdf). Accessed March 29, 2007.
4. Johnson WG, Rimsza ME. The effects of access to pediatric care and insurance coverage on emergency department utilization. *Pediatrics*. 2004;113(3 pt 1):483-487.
5. Phelps K, Taylor C, Kimmel S, Nagel R, Klein W, Puczynski S. Factors associated with emergency department utilization for nonurgent pediatric problems. *Arch Fam Med*. 2000;9(10):1086-1092.
6. Weber EJ, Showstack JA, Hunt KA, Colby DC, Callahan ML. Does lack of a usual source of care or health insurance increase the likelihood of an emergency department visit? Results of a national population-based study. *Ann Emerg Med*. 2005;45(1):4-12.
7. Schull MJ. Rising utilization of US emergency departments: maybe it is time to stop blaming the patients. *Ann Emerg Med*. 2005;45(1):13-14.
8. Oster A, Bindman AB. Emergency department visits for ambulatory care sensitive conditions: insights into preventable hospitalizations. *Med Care*. 2003;41(2):198-207.
9. Frey L, Schmidt J, Derksen DJ, Skipper B. A rural emergency department. *West J Med*. 1994;160(1):38-42.
10. Schappert SM, Burt CW. Ambulatory care visits to physician offices, hospital outpatient departments, and emergency departments: United States, 2001-02. *Vital Health Stat*. 2006;13(159):1-66.
11. Schneider D, Appleton L, McLemore T. A reason for visit classification for ambulatory care. *Vital Health Stat*. 1979;2(78):1-63.
12. National Center for Health Statistics. Data file documentation, National Health Interview Survey, 2004 (machine readable data file and documentation). Hyattsville, MD: US Dept of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics; 2005.
13. Lowe RA, Localio AR, Schwarz DF, et al. Association between primary care practice characteristics and emergency department use in a managed care organization. *Med Care*. 2005;43(8):792-800.
14. Burt CW, McCaig L. Staffing, capacity, and ambulatory diversion in emergency departments: United States, 2003-04. *Adv Data*. 2006;27(376):1-23.
15. Bernstein SL. Frequent emergency department visitors: the end of inappropriateness. *Ann Emerg Med*. 2006;48(1):18-20.
16. National Association of Health Data Organizations. ED data development toolkit: states with statewide electronic emergency department data systems. National Association of Health Data Organizations website. <http://www.nahdo.org/eddatatoolkit.aspx>. Accessed February 7, 2007.
17. Merrill CT, Elixhauser A. *Hospitalization in the United States, 2002*. Rockville, MD: US Dept of Health and Human Services; 2005. HCUP Fact Book No. 6, AHRQ Publication No. 05-0056.
18. Sarver JH, Cydulka RK, Baker DW. Usual source of care and nonurgent emergency department use. *Acad Emerg Med*. 2002;9(9):916-923.
19. United States Government Accountability Office. *Medicaid: States Reported That Citizenship Documentation Requirement Resulted in Enrollment Declines for Eligible Citizens and Posed Administrative Burdens*. Washington, DC: United States Government Accountability Office; 2007. GAO-07-889.



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