

Pediatric Emergency Department Visits in Community Hospitals from Selected States, 2005

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Introduction

During 2005, Americans made an estimated 115.3 million visits to hospital-affiliated emergency departments (EDs) with children comprising over a quarter of these visits.¹ In fact, about 20 percent of children visited hospital EDs at least once during the year.² Policymakers are concerned that high ED use by children may be a result of inadequate child health insurance coverage or limited access to primary care. Increased reliance on EDs may result in overcrowding and compound issues related to the availability of staff and resources needed to adequately tend to childrens' special emergency needs. Understanding the conditions for which children visit EDs may provide much needed insight into the accessibility of preventive and ambulatory care, as well as assist in improving ED resources for treating child patients.

This Statistical Brief presents data from the Healthcare Cost and Utilization Project (HCUP) on ED visits for children (patients under 18 years old) from the 23 states that provided ED data to HCUP in 2005.³ Information focusing on the reasons for childrens' ED visits is provided. Variations in ED visits based on demographic characteristics, disposition status, and expected payer are also discussed.

This brief is the second report in a two-part series on ED visits in community hospitals in selected states. Because adults and children are treated in the ED for very different reasons, discussion of ED visits by adults was presented in a separate brief (HCUP Statistical Brief #47).

Findings

General findings

In the 23 states included in this brief, individuals made about 55 million visits to EDs in 2005. About a quarter of these visits—12.4 million—were for children under 18 years old (table 1). The overwhelming majority (95.5 percent) of these were "treat-and-release" cases,* in which the child was released from the ED rather than being admitted to that hospital for further care. The remaining 4.5 percent of visits resulted in hospital admission. This is in contrast to adult ED visits, for which about 20 percent of visits resulted in the patient being admitted to the hospital.⁴

Rates of pediatric ED visits varied by demographic characteristics with rates being highest among the youngest children (0–4 years) and boys, as well as by children residing in micropolitan⁵ areas and the poorest communities. The mean age of children seen in the ED was about seven years of age. The youngest children displayed the highest rate of ED visits: children ages 0–4 were about 2.5 times more likely to visit an ED than those 5–9 years and 10–14 years of age, and 1.8 times more likely than teenagers 15–17 years of age. This age difference was even more striking for ED visits that resulted in hospitalization: rates of admission were over 3 times greater among the youngest children compared to the 5–9 and 10–14 age groups (27.7 admissions per 1,000 children 0–4 years of age compared to 8.4 and 8.8 admissions per 1,000 children 5–9 and 10–14 years of age, respectively).

Rates of ED visits were 9.0 percent greater among boys than girls (342.6 visits per 1,000 boys compared to 314.2 visits per 1,000 girls) with this gender difference increasing to 15.6 percent for those ED visits that resulted in hospitalization (16.0 admissions per 1,000 boys compared to 13.8 admissions per 1,000 girls).

Overall, rates of pediatric ED visits related to place of residence were highest in micropolitan areas (407.4 visits per 1,000 children) and lowest in large metropolitan areas (303.4 visits per 1,000 children). This pattern, however, did not hold true for pediatric ED visits that resulted in hospitalization—in fact, the rate of admission was highest in large metropolitan areas (15.7 admissions per 1,000 children) compared to all other locations (about 14 admissions per 1,000 children).

The rate of ED visits was inversely related to wealth: the rate of ED visits in the poorest communities was 86.1 percent higher than the rate in the wealthiest communities (413.8 visits per 1,000 children in the poorest communities versus 222.3 visits per 1,000 children in the wealthiest communities). While this relationship persisted with treat-and-release* and admitted ED cases, the magnitude of difference between the poorest and wealthiest communities decreased for ED visits that resulted in hospital admission.

Most common reasons for ED visits among children

Highlights

- In the 23 states included in this brief, there were about 55 million visits to EDs in 2005. About a quarter of these visits—12.4 million—were for children under 18 years of age.
- The majority of ED visits were treat-and-release cases, but about half a million pediatric ED visits resulted in hospital admission.
- Rates of ED visits were inversely related to wealth: the rate of ED visits in the poorest communities was 86.1 percent higher than the rate in the wealthiest communities (413.8 visits per 1,000 children in the poorest communities compared to 222.3 visits per 1,000 children in the wealthiest communities).
- Among children, six of the top ten reasons for ED visits were for injuries such as bruises, open wounds, sprains and strains, broken arms, and other injuries due to external causes.
- Four of the ten most common conditions for which children were admitted to the hospital from the ED were related to the respiratory system—pneumonia, asthma, acute bronchitis, and upper respiratory infections—collectively accounting for about 133,900 hospital stays that began in the ED.
- About a quarter of children were covered by Medicaid, but 44.6 percent of ED visits were billed to Medicaid.
- While 64.0 percent of children had commercial insurance coverage, private insurance was billed for only 42.4 percent of ED visits.

Table 2 presents the top ten reasons for ED visits among children. Injuries and respiratory infections were the most common reasons for pediatric ED visits. Injuries were responsible for a larger portion of ED visits among older children, while respiratory infections were more common in ED visits by younger children.

Accounting for more than 30 percent of all ED visits by children, injuries have a substantial effect on the health of millions of children as well as a significant impact on the health care system. In fact, six of the top ten reasons for pediatric ED visits were for injuries: superficial injuries such as bruises, open wounds, sprains and strains, broken arms, and other injuries due to external causes. While injuries were common reasons for ED visits, only a small portion of each of these injuries (about 2 percent overall) resulted in admission to the hospital—most children were treated and released* from the ED.

Upper respiratory infection, such as sinusitis, strep throat, and croup, was the most common condition that accounted for ED visits by children (11.6 percent). Other common reasons for ED visits among children included ear infections, fevers, and viral infections accounting for 6.5 percent, 4.0 percent and 3.3 percent of ED visits, respectively, in the 23 study states.

Most common conditions seen in the ED that resulted in hospital admission among children

While the majority of ED visits were treat-and-release cases* (table 3), about half a million pediatric ED visits resulted in hospital admission (table 4). Respiratory conditions were the most common reasons that children were admitted to the hospital after being seen in the ED. Four of the ten most common admitted conditions were related to the respiratory system—pneumonia, asthma, acute bronchitis, and upper respiratory infections—collectively accounting for about 133,900 hospital stays that began in the ED. This was especially true in the youngest children, 0 to 4 years of age, for which these respiratory conditions accounted for over a third of ED visits that resulted in admission to the hospital. In the two older pediatric age groups (10 to 14 years and 15 to 17 years), appendicitis and mood disorders were the two main reasons children were admitted to the hospital after being seen in the ED.

Fluid and electrolyte disorders and two infections—skin and urinary tract infections—were also among the top conditions for which children were seen in the ED and subsequently admitted to the same hospital. About a third of all pediatric visits for fluid and electrolyte disorders, 30,300 visits, resulted in the child being admitted to the hospital, and 8 to 9 percent of children with skin and urinary tract infections were admitted to the same hospital (16,000 and 14,600 cases, respectively). For most pediatric conditions seen in the ED, only a small portion of children were admitted to the hospital for further care. However, in the case of appendicitis cases, more than three-quarters (31,400 children) were admitted.

ED visits among children, by expected payer

In the 23 study states, Medicaid—the government payer for low-income people—and private insurance plans were billed for nearly equal portions of pediatric ED visits (over 40 percent each). Medicaid, however, was billed for disproportionately more pediatric ED visits compared to private insurance plans (figure 1). While about a quarter of children were insured by Medicaid in the 23 study states, 44.6 percent of pediatric ED visits were billed to Medicaid. ED visits that were covered by commercial insurance showed the opposite pattern: 64.0 percent of children in the 23 study states had some type of commercial insurance coverage, but private insurance was billed for only 42.4 percent of pediatric ED visits. About 10.6 percent of children lacked health insurance in 2005—these uninsured children accounted for 8.6 percent of ED visits in the 23 study states.

ED disposition—treat-and-release or hospital admission—among children, by expected payer*

In the 23 study states, ED disposition for children varied by insurance status (figure 2). Insured children were more likely to be admitted to the hospital for further care compared to uninsured children. About 5 percent of ED visits billed to Medicaid and private insurance resulted in hospital admission. In contrast, only 2.2 percent of uninsured pediatric ED visits resulted in the child being admitted to the hospital.

Data Source

The estimates in this Statistical Brief are based upon data from the HCUP 2005 State Emergency Department Databases (SEDD) and 2005 State Inpatient Databases (SID) for the following 23 states: Arizona, California, Connecticut, Florida, Georgia, Hawaii, Indiana, Iowa, Kansas, Maryland, Massachusetts, Minnesota, Missouri, Nebraska, New Hampshire, New Jersey, Ohio, South Carolina, South Dakota, Tennessee, Utah, Vermont, and Wisconsin.

Supplemental sources included:

- 1) State population estimates from the Annual Estimates of the Resident Population by Single-Year of Age and Sex for the United States and States: April 1, 2000 to July 1, 2006 (SC-EST2006-AGESEX_RES), Population Division, U.S. Census Bureau, Release date: May 17, 2007 (http://www.census.gov/popest/states/asrh/files/SC_EST2006_AGESEX_RES.csv)
- 2) Denominator data for the population rates presented in Table 1 were derived from 2005 Claritas data.
- 3) Health insurance coverage estimates from the Current Population Survey (CPS) Table Creator for the 23 study states in the 2005 data year (http://www.census.gov/hhes/www/cpstc/cps_table_creator.html).

Definitions

Case Definition

ED visits

Pediatric ED visits includes information on all visits to hospital-affiliated emergency rooms for patients under 18 years of age in the 23 study states regardless of whether the child was treated-and-released from that ED or admitted to that hospital from the ED. This information was obtained by combining the State Emergency Department Databases (SEDD) with the State Inpatient Databases (SID) to get a complete enumeration of hospital-based ED visits within each participating state.

Treat-and-release ED visits

Treat-and-release ED visits were those pediatric ED visits in which patients were treated-and-released from that ED— i.e., they were not admitted to that specific hospital. While the majority of children were discharged home (97.1%), some left without being treated (1.1%), were transferred to another acute care facility (0.9%), were sent to a long-term care facility (0.8%), were discharged to home health care (0.03%), or died (0.04%). Information on treat-and-release cases is included in the State Emergency Department Databases (SEDD).

ED visits resulting in a hospital stay

ED visits resulting in a hospital stay included those pediatric patients initially seen in the ED and then admitted to the hospital. This information is included in the State Inpatient Databases (SID).

Diagnoses, ICD-9-CM, and Clinical Classifications Software (CCS)

For ED hospital records that were treat-and-release cases, this brief reports the first-listed diagnosis which is the diagnosis that appears first on the record and may not be the principal diagnosis. For ED visits that result in hospital admission, this brief reports the principal diagnosis that appears on the inpatient hospital record. The principal diagnosis is that condition established after study to be chiefly responsible for admission to the hospital.

ICD-9-CM is the International Classification of Diseases, Ninth Revision, Clinical Modification, which assigns numeric codes to diagnoses. There are about 3,500 procedure codes and 12,000 ICD-9-CM diagnosis codes.

CCS categorizes ICD-9-CM diagnosis and procedure codes into clinically meaningful categories⁶. This "clinical grouper" makes it easier to quickly understand patterns of procedure use. Data in this brief are based on the principal CCS diagnosis.

Types of hospitals included in HCUP

HCUP is based on data from community hospitals, defined as short-term, non-Federal, general and other hospitals, excluding hospital units of other institutions (e.g., prisons). HCUP data include OB-GYN, ENT, orthopedic, cancer, pediatric, public, and academic medical hospitals. They exclude long-term care, rehabilitation, psychiatric, and alcoholism and chemical dependency hospitals, but these types of discharges are included if they are from community hospitals.

Unit of analysis

The unit of analysis is the ED visit or hospital discharge (i.e., the hospital stay), not a person or patient. This means that children visiting the ED multiple times in one year will be counted each time as a separate case. Multiple ED visits by children is not uncommon; thus, rates presented in this brief must be interpreted with caution. The numerator for the rates is "number of ED visits," while the denominator is the number of children based on Census Bureau estimates. One child may have several visits to the ED in a given year; thus, the rates should be interpreted as the rate of "visits" or "rate of hospitalizations" rather than the "rate of children" being seen in the ED or admitted to the hospital from the ED.

Patient Residence

Patient residence is a four category urban-rural designation for the patient's county of residence. The categorization is a simplified adaptation of the 2003 version of the Urban Influence Codes (UIC). The 12 categories of the UIC are combined into four broader categories that differentiate between large and small metropolitan, micropolitan, and a non-urban residual.

Median community-level income

Median community-level income is the median household income of the patient's ZIP Code of residence. The cut-offs for the quartile designation is determined using ZIP Code demographic data obtained from Claritas. The income quartile value is missing for homeless and foreign patients.

Payer

Payer is the expected payer for the hospital stay. To make coding uniform across all HCUP data sources, Payer combines detailed categories into more general groups:

- Medicaid includes fee-for-service and managed care Medicaid patients. Patients covered by the State Children's Health Insurance Program (SCHIP) may be included here. Because most state data do not identify SCHIP patients specifically, it is not possible to present this information separately.
- Private insurance includes Blue Cross, commercial carriers, and private HMOs and PPOs.
- Other includes Workers' Compensation, TRICARE/CHAMPUS, CHAMPVA, Title V, and other government and non-government programs. Note: For this brief, when discussing pediatric visits Medicare is included in the "other" category due to the small number of children covered by the Medicare program. For adult stays, Medicare is reported as a separate category.
- Uninsured includes an insurance status of "self-pay" and "no charge."

When more than one payer is listed for a hospital discharge, the first-listed payer is used.

About HCUP

HCUP is a family of powerful health care databases, software tools, and products for advancing research. Sponsored by the Agency for Healthcare Research and Quality (AHRQ), HCUP includes the largest all-payer encounter-level collection of longitudinal health care data (inpatient, ambulatory surgery, and emergency department) in the United States, beginning in 1988. HCUP is a Federal-State-Industry Partnership that brings together the data collection efforts of many organizations—such as State data organizations, hospital associations, private data organizations, and the Federal government—to create a national information resource.

HCUP would not be possible without the contributions of the following data collection Partners from across the United States (asterisk indicates states that are included in this brief):

- Arizona** Department of Health Services*
- Arkansas** Department of Health
- California** Office of Statewide Health Planning & Development*

Colorado Hospital Association
Connecticut Integrated Health Information (Chime, Inc.)*
Florida Agency for Health Care Administration*
Georgia Hospital Association*
Hawaii Health Information Corporation*
Illinois Health Care Cost Containment Council and Department of Public Health
Indiana Hospital & Health Association*
Iowa Hospital Association*
Kansas Hospital Association*
Kentucky Cabinet for Health and Family Services
Maryland Health Services Cost Review Commission*
Massachusetts Division of Health Care Finance and Policy*
Michigan Health & Hospital Association
Minnesota Hospital Association*
Missouri Hospital Industry Data Institute*
Nebraska Hospital Association*
Nevada Division of Health Care Financing and Policy, Department of Human Resources
New Hampshire Department of Health & Human Services*
New Jersey Department of Health & Senior Services*
New York State Department of Health
North Carolina Department of Health and Human Services*
Ohio Hospital Association*
Oklahoma Health Care Information Center for Health Statistics
Oregon Association of Hospitals and Health Systems
Rhode Island Department of Health
South Carolina State Budget & Control Board
South Dakota Association of Healthcare Organizations*
Tennessee Hospital Association*
Texas Department of State Health Services
Utah Department of Health*
Vermont Association of Hospitals and Health Systems*
Virginia Health Information
Washington State Department of Health
West Virginia Health Care Authority
Wisconsin Department of Health & Family Services*

About the SEDD

The State Emergency Department Databases (SEDD) are hospital databases, from data organizations in participating States, that capture discharge information on all emergency department visits that do not result in an admission. Information on patients initially seen in the emergency room and then admitted to the hospital is included in the State Inpatient Databases (SID). The SEDD contain a core set of clinical and non-clinical information on all patients, regardless of payer. SEDD data can be combined with SID discharges that originate in the emergency department to enumerate all emergency department visits in a given state or market area. The SEDD can be used to investigate questions unique to one state; to compare data from two or more states; to conduct market area variation analyses; and to identify state-specific trends in ED care utilization, access, charges, and outcomes.

About the SID

The HCUP State Inpatient Databases (SID) are hospital inpatient databases from data organizations participating in HCUP. The SID contain the universe of the inpatient discharge abstracts in the participating HCUP states, translated into a uniform format to facilitate multistate comparisons and analyses. Together, the SID encompass about 90 percent of all U.S. community hospital discharges in 2005. The SID can be used to investigate questions unique to one state; to compare data from two or more states; to conduct market area variation analyses; and to identify state-specific trends in inpatient care utilization, access, charges, and outcomes.

About HCUPnet

HCUPnet is an online query system that offers instant access to the largest set of all-payer health care databases that are publicly available. HCUPnet has an easy step-by-step query system, allowing for tables and graphs to be generated on national and regional statistics, as well as trends for community hospitals in the U.S. HCUPnet generates statistics using data from HCUP's Nationwide Inpatient Sample (NIS), the Kids' Inpatient Database (KID), the State Inpatient Databases (SID) and the State Emergency Department Databases (SEDD).

For More Information

For more information about HCUP, visit www.hcup-us.ahrq.gov.

For additional HCUP statistics, visit HCUPnet, our interactive query system, at www.hcup.ahrq.gov.

For information on other hospitalizations in the U.S., download *HCUP Facts and Figures: Statistics on Hospital-based Care in the United States in 2005*, located at <http://www.hcup-us.ahrq.gov/reports.jsp>.

For a detailed description of HCUP and more information on the SEDD please refer to the following publications:

Steiner, C., Elixhauser, A., Schnaier, J. The Healthcare Cost and Utilization Project: An Overview. *Effective Clinical Practice* 5 (3):143-51, 2002.

Introduction to the HCUP State Emergency Department Databases (SEDD). Online. December 2007. U.S. Agency for Healthcare Research and Quality. http://www.hcup-us.ahrq.gov/db/state/sedd/dist/Introduction_to_SEDD.pdf.

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AHRQ welcomes questions and comments from readers of this publication who are interested in obtaining more information about access, cost, use, financing, and quality of health care in the United States. We also invite you to tell us how you are using this Statistical Brief and other HCUP data and tools, and to share suggestions on how HCUP products might be enhanced to further meet your needs. Please e-mail us at hcup@ahrq.gov or send a letter to the address below:

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Rockville, MD 20850

- ¹ Nawar EW, Niska RW, Xu J. National Hospital Ambulatory Medical Care Survey: 2005 Emergency Department Summary. Advance data from vital and health statistics; no. 386. Hyattsville, MD: National Center for Health Statistics. 2007.
- ² National Center for Health Statistics Health, United States, 2007 With Chartbook on Trends in the Health of Americans Hyattsville, MD: 2007 Library of Congress Catalog Number 76-641496. Washington, DC 20402
- ³ AHRQ is evaluating the feasibility of producing a national ED database that samples from the states that provide ED data to HCUP. The following 23 states are covered in this brief: Arizona, California, Connecticut, Florida, Georgia, Hawaii, Indiana, Iowa, Kansas, Maryland, Massachusetts, Minnesota, Missouri, Nebraska, New Hampshire, New Jersey, Ohio, South Carolina, South Dakota, Tennessee, Utah, Vermont, and Wisconsin. These states comprise 51 percent of the U.S. population and 47 percent of ED visits in the U.S.
- ⁴ Merrill, CT (Thomson Healthcare), Owens PL (AHRQ), and Stocks, C (AHRQ). *Emergency Department Visits for Adults in Community Hospitals from Selected States, 2005*. HCUP Statistical Brief #47. February 2008. Agency for Healthcare Research and Quality, Rockville, MD. <http://www.hcup-us.ahrq.gov/reports/statbriefs/sb47.pdf>.
- ⁵ Micropolitan areas are defined as urban areas with a population between 10,000 and 49,999 residents (U.S. Census Bureau).
- ⁶ HCUP CCS. Healthcare Cost and Utilization Project (HCUP), May 2008. U.S. Agency for Healthcare Research and Quality, Rockville, MD. <http://www.hcup-us.ahrq.gov/toolssoftware/ccs/ccs.jsp>.
- *Cases are outpatient visits to the ED. Among treat-and-release visits, the majority of children were discharged home (97.1%), some left without being treated (1.1%), were transferred to another acute care facility (0.9%), were sent to a long-term care facility (0.8%), were discharged to home health care (0.03%), or died (0.04%).

	All pediatric ED visits	Treat-and-release ED visits**	ED visits resulting in hospital admission
Number of visits (percentage of all ED visits)	12,372,300 (100.0%)	11,810,800 (95.5%)	561,500 (4.5%)
Mean child age	6.9 years	6.9 years	6.5 years
<i>Rates per 1,000 children</i>			
All pediatric ED visits	329.1	314.1	14.9
<i>Age</i>			
0-4 years	550.3	522.6	27.7
5-9 years	243.5	235.1	8.4
10-14 years	219.3	210.5	8.8
15-17 years	299.4	283.9	15.4

Gender			
Girls	314.2	300.4	13.8
Boys	342.6	326.6	16.0
Patient residence*			
Large metropolitan	303.4	287.7	15.7
Small metropolitan	341.1	327.5	13.6
Micro-politan	407.4	393.2	14.2
Non-metropolitan, non-micro-politan	386.4	372.4	14.0
Median community-level income*			
Bottom quartile (poorest)	413.8	394.9	18.9
Second quartile	355.1	340.2	14.8
Third quartile	298.9	285.4	13.5
Top quartile (wealthiest)	222.3	210.9	11.5
<p>*A small percentage of ED records that were missing patient residence or median community-level income information were excluded from rate calculations. **Among treat-and-release visits, the majority of children were discharged home (97.1%), some left without being treated (1.1%), were transferred to another acute care facility (0.9%), were sent to a long-term care facility (0.8%), were discharged to home health care (0.03%), or died (0.04%). Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project (HCUP), State Emergency Department Databases (SEDD) and State Inpatient Databases (SID) for the following 23 states: Arizona, California, Connecticut, Florida, Georgia, Hawaii, Indiana, Iowa, Kansas, Maryland, Massachusetts, Minnesota, Missouri, Nebraska, New Hampshire, New Jersey, Ohio, South Carolina, South Dakota, Tennessee, Utah, Vermont, and Wisconsin; Denominator data for rates were based on 2005 Claritas data for the 23 study states.</p>			

Table 2. Top 10 most common reasons for all ED visits for children in 23 study states, 2005*

Rank	First-listed/principal CCS diagnosis	Number of ED visits for this condition (percentage of all pediatric ED visits)	Number of ED visits for this condition that were treat-and-release (percentage of ED visits for this condition that were treat-and-release)**	Number of ED visits for this condition that resulted in admission to the hospital (percentage of ED visits for this condition that resulted in admission)
1	Other upper respiratory infections (nose, throat, trachea) †	1,428,700 (11.6%)	1,414,600 (99.0%)	14,100 (1.0%)
2	Superficial injury, bruise	853,900 (6.9%)	852,000 (99.8%)	1,900 (0.2%)
3	Otitis media (middle ear infection) and related conditions	806,200 (6.5%)	804,400 (99.8%)	1,800 (0.2%)
4	Open wounds of head, neck, and trunk	639,800 (5.2%)	636,700 (99.5%)	3,100 (0.5%)
5	Sprains and strains	523,200 (4.2%)	522,800 (99.9%)	400 (0.1%)
6	Fever of unknown origin	490,000 (4.0%)	481,200 (98.2%)	8,800 (1.8%)
7	Other injuries and conditions due to external causes	452,700 (3.7%)	446,500 (98.6%)	6,200 (1.4%)
8	Viral infections	409,000 (3.3%)	398,300 (97.4%)	10,700 (2.6%)
9	Fracture of arm	396,800 (3.2%)	385,800 (97.2%)	1,900 (2.8%)
10	Open wounds of arms and legs	392,800 (3.2%)	390,300 (99.4%)	2,500 (0.6%)

*Reasons for treat-and-release visits were based on the first-listed diagnosis on the ED record; hospital-admitted cases were based on principal diagnosis on the inpatient record.
 **Among treat-and-release visits, the majority of children were discharged home (97.1%), some left without being treated

(1.1%), were transferred to another acute care facility (0.9%), were sent to a long-term care facility (0.8%), were discharged to home health care (0.03%), or died (0.04%).

‡ The "other upper respiratory infections" category includes a mix of nose, throat, and trachea infections, such as sinusitis, strep throat, and croup.

Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project (HCUP), State Emergency Department Databases (SEDD) and State Inpatient Databases (SID) for the following 23 states: Arizona, California, Connecticut, Florida, Georgia, Hawaii, Indiana, Iowa, Kansas, Maryland, Massachusetts, Minnesota, Missouri, Nebraska, New Hampshire, New Jersey, Ohio, South Carolina, South Dakota, Tennessee, Utah, Vermont, and Wisconsin.

Table 3. Top 10 most common reasons for treat-and-release ED visits for children in 23 study states, 2005*

Rank	First-listed/principal CCS diagnosis	Number of ED visits for this condition (percentage of all pediatric ED visits)	Number of ED visits for this condition that were treat-and-release (percentage of ED visits for this condition that were treat-and-release)**	Number of ED visits for this condition that resulted in admission to the hospital (percentage of ED visits for this condition that resulted in admission)
1	Other upper respiratory infections (nose, throat, trachea) ‡	1,428,700 (11.6%)	1,414,600 (99.0%)	14,100 (1.0%)
2	Superficial injury, bruise	853,900 (6.9%)	852,000 (99.8%)	1,900 (0.2%)
3	Otitis media (middle ear infection) and related conditions	806,200 (6.5%)	804,400 (99.8%)	1,800 (0.2%)
4	Open wounds of head, neck, and trunk	639,800 (5.2%)	636,700 (99.5%)	3,100 (0.5%)
5	Sprains and strains	523,200 (4.2%)	522,800 (99.9%)	400 (0.1%)
6	Fever	490,000 (4.0%)	481,200 (98.2%)	8,800 (1.8%)
7	Other injuries and conditions due to external causes	452,700 (3.7%)	446,500 (98.6%)	6,200 (1.4%)
8	Viral infections	409,000 (3.3%)	398,300 (97.4%)	10,700 (2.6%)
9	Open wounds to extremities	392,800 (3.2%)	390,300 (99.4%)	2,500 (0.6%)
10	Fracture of arm	396,800 (3.2%)	385,800 (97.2%)	11,000 (2.8%)

*Reasons for treat-and-release visits were based on the first-listed diagnosis on the ED record; hospital-admitted cases were based on principal diagnosis on the inpatient record.

**Among treat-and-release visits, the majority of children were discharged home (97.1%), some left without being treated (1.1%), were transferred to another acute care facility (0.9%), were sent to a long-term care facility (0.8%), were discharged to home health care (0.03%), or died (0.04%).

‡ The "other upper respiratory infections" category includes a mix of nose, throat, and trachea infections, such as sinusitis, strep throat, and croup.

Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project (HCUP), State Emergency Department Databases (SEDD) and State Inpatient Databases (SID) for the following 23 states: Arizona, California, Connecticut, Florida, Georgia, Hawaii, Indiana, Iowa, Kansas, Maryland, Massachusetts, Minnesota, Missouri, Nebraska, New Hampshire, New Jersey, Ohio, South Carolina, South Dakota, Tennessee, Utah, Vermont, and Wisconsin.

Table 4. Top 10 most common reasons for ED visits that resulted in a hospital stay for children in 23 study states, 2005*

Rank	First-listed/principal CCS diagnosis	Number of ED visits for this condition (percentage of all pediatric ED visits)	Number of ED visits for this condition that were treat-and-release (percentage of ED visits for this condition that were treat-and-release)**	Number of ED visits for this condition that resulted in admission to the hospital (percentage of ED visits for this condition that resulted in admission)
1	Pneumonia	225,100 (1.8%)	177,000 (78.6%)	48,100 (21.4%)
2	Asthma	328,100 (2.7%)	288,500 (87.9%)	39,600 (12.1%)

3	Acute bronchitis	227,100 (1.8%)	195,000 (85.9%)	32,100 (14.1%)
4	Appendicitis	41,000 (0.3%)	9,600 (23.4%)	31,400 (76.6%)
5	Fluid and electrolyte disorders	91,800 (0.7%)	61,500 (67.0%)	30,300 (33.0%)
6	Mood disorders	58,000 (0.5%)	38,700 (66.7%)	19,400 (33.3%)
7	Epilepsy, convulsions	125,800 (1.0%)	109,000 (87.3%)	16,800 (12.7%)
8	Skin and subcutaneous tissue infections	192,300 (1.6%)	176,300 (92.4%)	16,000 (12.7%)
9	Urinary tract infections	164,900 (1.3%)	150,300 (91.4%)	14,600 (7.6%)
10	Other upper respiratory infections (nose, throat, trachea) ‡	1,428,700 (11.6%)	1,414,600 (99.1%)	14,100 (8.6%)

*Reasons for treat-and-release visits were based on the first-listed diagnosis on the ED record; hospital-admitted cases were based on principal diagnosis on the inpatient record.

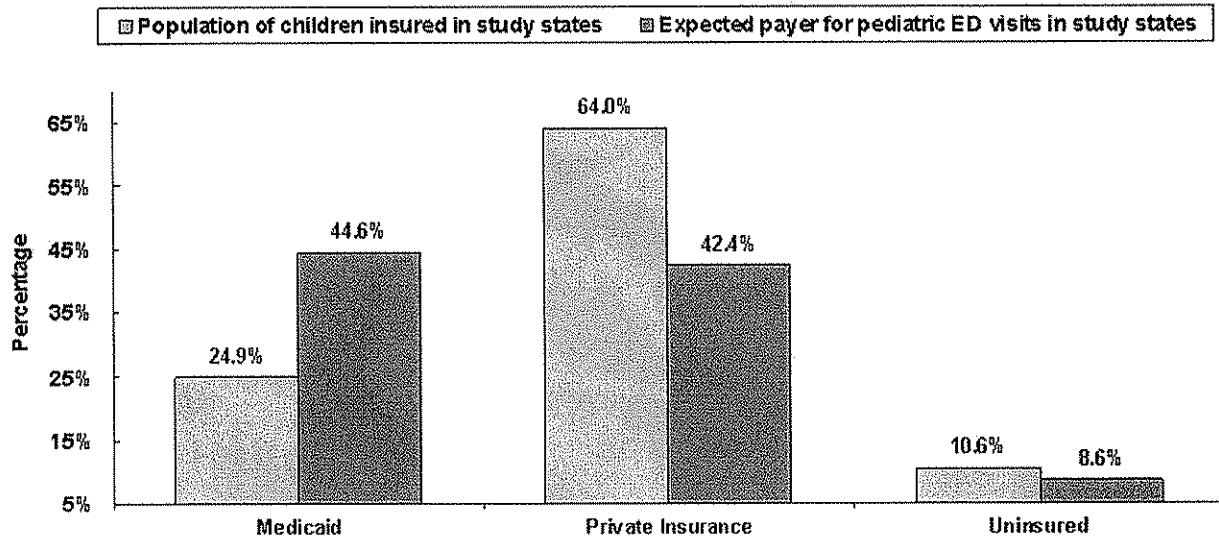
**Among treat-and-release visits, the majority of children were discharged home (97.1%), some left without being treated (1.1%), were transferred to another acute care facility (0.9%), were sent to a long-term care facility (0.8%), were discharged to home health care (0.03%), or died (0.04%).

‡ The "other upper respiratory infections" category includes a mix of nose, throat, and trachea infections, such as sinusitis, strep throat, and croup.

Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project (HCUP), State Emergency Department Databases (SEDD) and State Inpatient Databases (SID) for the following 23 states: Arizona, California, Connecticut, Florida, Georgia, Hawaii, Indiana, Iowa, Kansas, Maryland, Massachusetts, Minnesota, Missouri, Nebraska, New Hampshire, New Jersey, Ohio, South Carolina, South Dakota, Tennessee, Utah, Vermont, and Wisconsin.



Figure 1. Medicaid was billed for disproportionately more pediatric ED visits compared to private insurers, 2005*

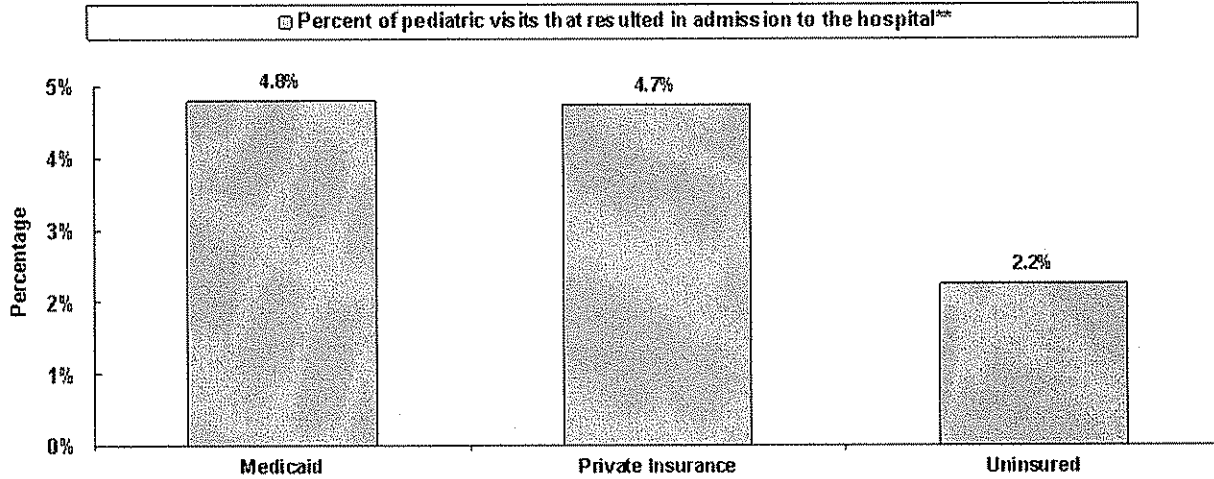


*About 4 percent of pediatric ED visits were billed to "other insurance" which includes Medicare, Workers' Compensation, TRICARE/CHAMPUS, CHAMPVA, Title V, and other government programs. They are not represented in this figure.

Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, 2005 State Emergency Department Databases (SEDD) for the following 23 states: Arizona, California, Connecticut, Florida, Georgia, Hawaii, Indiana, Iowa, Kansas, Maryland, Massachusetts, Minnesota, Missouri, Nebraska, New Hampshire, New Jersey, Ohio, South Carolina, South Dakota, Tennessee, Utah, Vermont, and Wisconsin; 2005 U.S. Census Bureau Current Population Survey (CPS) Table Creator.



Figure 2. Insured children were more than twice as likely to be admitted to the hospital from the ED compared to uninsured children, 2005*



*About 4 percent of pediatric ED visits were billed to "other insurance" which includes Medicare, Worker's Compensation, CHAMPVA, TRICARE/CHAMPUS, Title V, and other government programs. They are not represented in this figure.

**This percent reflects children who were admitted to the *same* hospital as where the ED was located. About 1.7 percent of pediatric ED visits resulted in admission to another acute short-term care or long-term care facility—they are not included in this figure.

Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, 2005 State Emergency Department Databases (SEDD) for the following 23 states: Arizona, California, Connecticut, Florida, Georgia, Hawaii, Indiana, Iowa, Kansas, Maryland, Massachusetts, Minnesota, Missouri, Nebraska, New Hampshire, New Jersey, Ohio, South Carolina, South Dakota, Tennessee, Utah, Vermont, and Wisconsin; 2005 U.S. Census Bureau Current Population Survey (CPS) Table Creator.