

## National Hospital Ambulatory Medical Care Survey: 2000 Emergency Department Summary

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### Abstract

**Objectives**—This report describes ambulatory care visits to hospital emergency departments (EDs) in the United States. Statistics are presented on selected hospital, patient, and visit characteristics. Highlights of trends in ED utilization from 1997 through 2000 are also presented.

**Methods**—The data presented in this report were collected from the 2000 National Hospital Ambulatory Medical Care Survey (NHAMCS). NHAMCS is part of the ambulatory care component of the National Health Care Survey that measures health care utilization across various types of providers. NHAMCS 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. Sample data are weighted to produce annual national estimates. Trends are based on NHAMCS data from 1997 through 2000.

**Results**—From 1997 through 2000, ED utilization in the United States increased by 14 percent from 94.9 million to 108.0 million visits annually. The mean waiting time for nonurgent visits increased from 51.1 minutes to 67.7 minutes during this period. However, the rate of emergent visits per 1,000 persons declined by 17 percent. In 2000, abdominal pain, chest pain, fever, and headache were the leading patient complaints accounting for nearly one-fifth of all visits. Acute upper respiratory infection was the leading illness-related diagnosis at ED visits. There were an estimated 40.4 million injury-related visits during 2000, or 14.8 visits per 100 persons. The most frequently recorded primary diagnosis at these visits was open wounds (18.0 percent) and the most commonly mentioned body site was hand, wrist, and fingers (12.6 percent). Medications were provided at 73.8 percent of visits and pain relief drugs accounted for 32.0 percent of the medications mentioned. In 2000, approximately 12 percent of ED visits resulted in hospital admission.

**Keywords:** emergency department visits • diagnoses • injury • ICD-9-CM

### Introduction

The National Hospital Ambulatory Medical Care Survey (NHAMCS) was inaugurated in 1992 to gather, analyze, and disseminate information about the health care provided by hospital

emergency departments (EDs) and outpatient departments (OPDs). The NHAMCS is part of the ambulatory care component of the National Health Care Survey, a family of surveys that measures health care utilization across various types of providers.

Ambulatory medical care is the predominant method of providing health care services in the United States and occurs in a wide range of settings. The largest proportion of ambulatory care services occurs in physician offices (1). Since 1973, the National Center for Health Statistics (NCHS) has collected data on patient visits to physicians' offices through the National Ambulatory Medical Care Survey (NAMCS). However, visits to hospital EDs and OPDs, which represent a significant segment of ambulatory care visits, are not included in the NAMCS. Furthermore, hospital ambulatory patients are known to differ from office patients in certain demographic and medical characteristics (1). In addition to evaluating and treating patients for acute medical problems and severe injuries, the ED has become a safety net for patients who lack access to primary health care. Data from the 1999 National Health Interview Survey showed that approximately 17 percent of the noninstitutional civilian population made at least one visit to the ED and 5 percent made two visits or more (2).

Congress has passed several laws that impact the burden on EDs. The 1986 Emergency Medical Treatment and Labor Act (EMTALA) requires EDs to perform a screening examination and, if the patient requires emergency treatment, to treat or stabilize the patient for transfer to another facility. The

Balanced Budget Act (BBA) of 1997 requires Medicaid and Medicare programs to reimburse hospitals for emergency care that a reasonable person would consider necessary. Several States also passed legislation that enacted the “prudent layperson” standard.

This report presents data from the 2000 National Hospital Ambulatory Medical Care Survey (NHAMCS), a nationally representative survey of hospital ED utilization. Hospital, patient, and visit characteristics are described. In addition, data on selected ED utilization trends from 1997 through 2000 are presented. Other *Advance Data* reports highlight visits to OPDs (3) and physician offices (4). More detailed information on 1992–99 ED trend data was published in a separate report (5).

## Data highlights

- From 1997 through 2000, ED utilization increased by 14 percent, from 94.9 million to 108.0 million visits annually, while the number of hospital EDs in the United States decreased from 4,005 to 3,934.
- From 1997 through 2000, the mean waiting time for nonurgent visits increased from 51.1 minutes to 67.7 minutes. However, the rate of emergent visits per 1,000 persons declined by 17 percent.
- Stomach and abdominal pain, chest pain, and fever were the most commonly recorded principal reasons for visit.
- The most frequently reported primary diagnoses were contusions, open wounds, acute upper respiratory infections, and abdominal pain.
- For injury-related visits, the most frequently recorded primary diagnosis was open wounds (18.0 percent) and the most commonly mentioned body site was hand, wrist, and fingers (12.6 percent).

## Methods

The data presented in this report are from the 2000 NHAMCS, a national probability sample survey conducted by the Division of Health Care Statistics of the National Center for Health Statistics, Centers for Disease Control and Prevention. The survey was conducted

from December 27, 1999, through December 24, 2000.

The target universe of the NHAMCS is in-person visits made in the United States to EDs and OPDs of non-Federal, short-stay hospitals (hospitals with an average stay of less than 30 days) or those whose specialty is general (medical or surgical) or children’s general. The sampling frame consisted of hospitals listed in the April 1991 SMG Hospital Database. The 2000 NHAMCS data presented in this report are representative of utilization statistics for hospitals existent in 1991.

A four-stage probability sample design is used in the NHAMCS (6). The design involves samples of primary sampling units (PSUs), hospitals within PSUs, EDs within hospitals and/or clinics within outpatient departments, and patient visits within EDs and/or clinics. The PSU sample consists of 112 PSUs that comprise a probability subsample of the PSUs used in the 1985–94 National Health Interview Survey. The sample for 2000 consisted of 488 hospitals. Of this group, 398 hospitals had EDs and 376 of these EDs participated in the survey, resulting in a hospital ED participation rate of 94 percent. Hospital staff were asked to complete Patient Record forms (see [figure I](#) in the [Technical notes](#)) for a systematic random sample of patient visits occurring during a randomly assigned 4-week reporting period. The number of Patient Record forms completed for EDs was 25,622.

Because the estimates presented in this report are based on a sample rather than on the entire universe of ED visits, they are subject to sampling variability. The [Technical notes](#) at the end of this report include an explanation of sampling errors with guidelines for judging the precision of the estimates. The standard errors reported here are calculated using Taylor approximations in SUDAAN, which take into account the complex sample design of the NHAMCS (7).

The U.S. Census Bureau was responsible for data collection. Data processing operations and medical coding were performed by Analytical Sciences Inc., Durham, North Carolina. As part of the quality assurance

procedure, a 10-percent quality control sample of survey records was independently keyed and coded. Coding error rates ranged between 0.0 and 1.9 percent for various survey items.

Several of the tables in this report present data on rates of ED visits. The population figures used in calculating these rates are based on Census Bureau monthly postcensal estimates of the civilian noninstitutional population of the United States as of July 1, 2000, and have been adjusted for net underenumeration using the 1990 National Population Adjustment Matrix.

Data on selected ED utilization trends from 1997 through 2000 are also presented. A weighted least-squares regression analysis was used to determine the significance of trends at the 0.05 level. For details on the surveys conducted from 1997 through 1999, refer to the annual reports (8–10).

## Results

From 1997 through 2000, emergency department utilization increased by 14 percent from 94.9 million to 108.0 million visits annually, while the number of hospital EDs in the United States decreased from 4,005 to 3,934 (11). On average, the number of annual visits per ED increased by 16 percent, from 23,704 to 27,457 ([figure 1](#)); however, no trend was observed in the population visit rate.

## Patient characteristics

There were an estimated 108.0 million ED visits in 2000, about 39.4 visits per 100 persons. ED visits by patient’s age, sex, and race are shown in [table 1](#). Persons 75 years of age and over had a higher ED visit rate (64.8 visits per 100 persons) than persons in the other five age categories. There were no differences in rates by sex within the various age groups with the exception of the 15–24-year-old age category where females had a higher rate. The ED utilization rate for black persons was 67 percent higher than for white persons ([figure 2](#)). Significant differences were observed by race in all age groups except for persons 75 years of age and over.

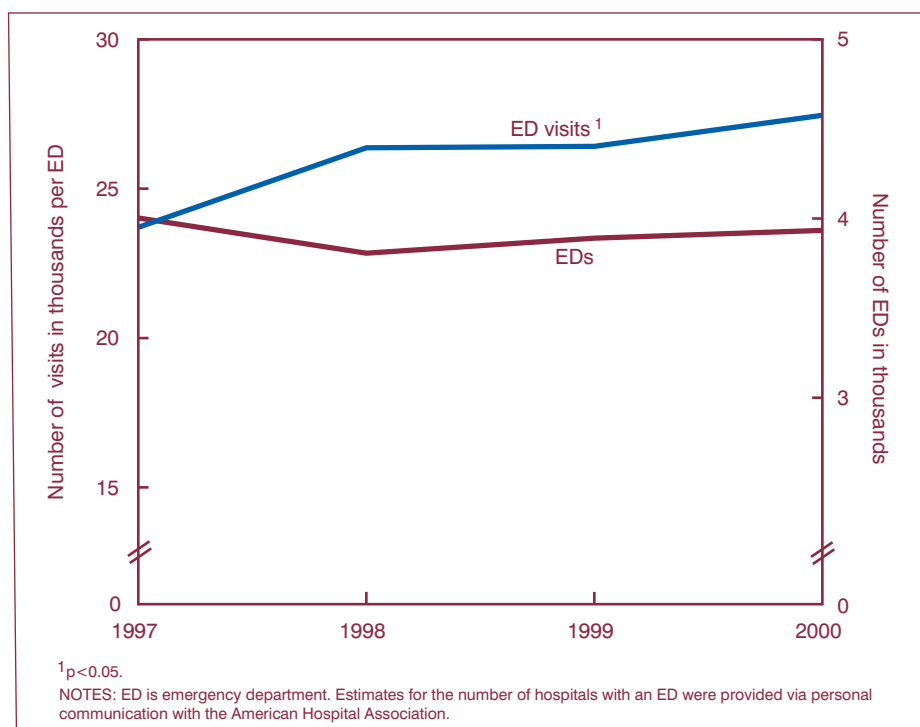


Figure 1. Trend in emergency department visits: United States, 1997–2000

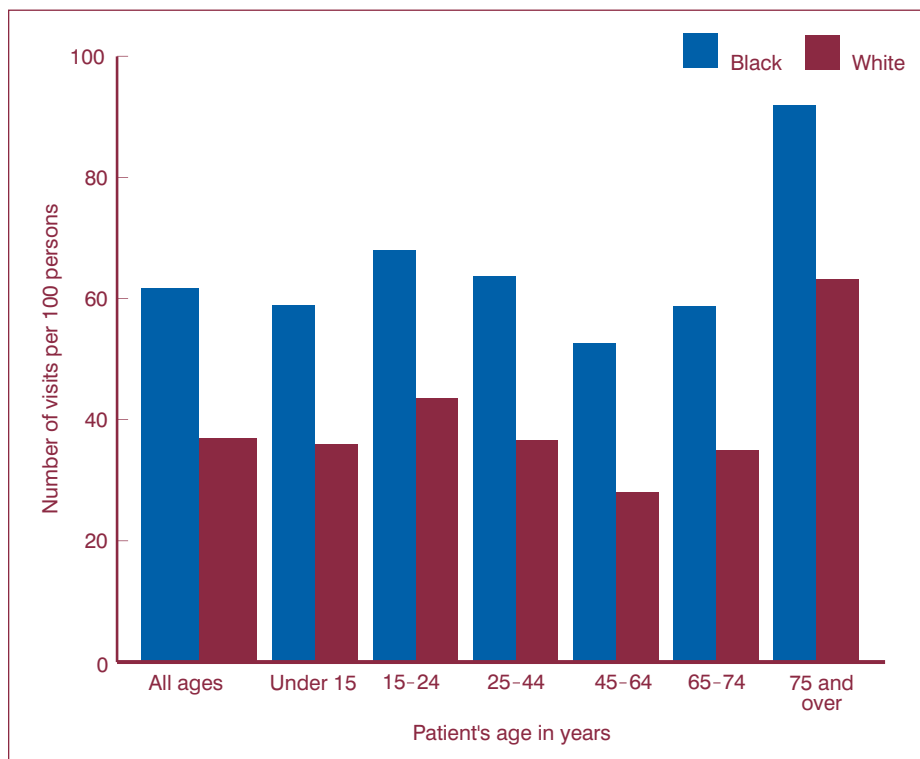


Figure 2. Annual rate of emergency department visits by patient's age and race: United States, 2000

### Hospital characteristics

*Ownership*—About 72 percent of ED visits were made to voluntary

nonprofit hospitals (table 1). The percent of visits made to non-Federal government (i.e., State, county, city) and

proprietary hospitals were 17.8 percent and 10.0 percent, respectively.

*Geographic region*—There were no significant differences in visit rates by geographic region. However, the overall distribution of visits indicated a higher proportion of ED visits in the South (39.3 percent) than in the three other regions (table 1). The percent of visits in the Midwest (25.1 percent) was greater than in the West and the Northeast.

*Hospital size*—Hospitals in urban areas tend to have a larger volume of visits than those in rural areas. Slightly over half of all hospital EDs are located in metropolitan statistical areas (MSAs), but they have 76.1 percent of the annual emergency encounters.

### Visit characteristics

*Mode of arrival*—For nearly 15.1 million visits (14.0 percent), the patient arrived at the ED by ambulance (either ground or air). Over three-fourths of ED visits were made by patients who arrived at the ED by “walking in,” and 1.5 percent of arrivals were by public service (e.g., police or social services) (table 2). For 6.3 percent of visits, this item was recorded as “unknown” or left blank. Among persons 75 years of age and over, 43.1 percent arrived by ambulance. About 38 percent of visits with ambulance recorded as the mode of arrival were made by persons 65 years of age and over (figure 3).

*Primary expected source of payment*—Private insurance was listed as the dominant expected source of payment, occurring for 40.2 percent of ED visits (table 3). Self-payment (which does not include patient copayments and deductibles) (17.4 percent), Medicaid (16.7 percent), and Medicare (15.0 percent) were also prominent. About 2.8 percent of ED visits cited “Worker’s Compensation” as the primary expected source of payment. Payment mechanism varied by patient age as shown in figure 4. Self-pay was the leading primary expected source of payment reported for persons under 64 years of age, and Medicare was most commonly recorded for persons ages 65 years and over.

*Immediacy with which patient should be seen*—The level of

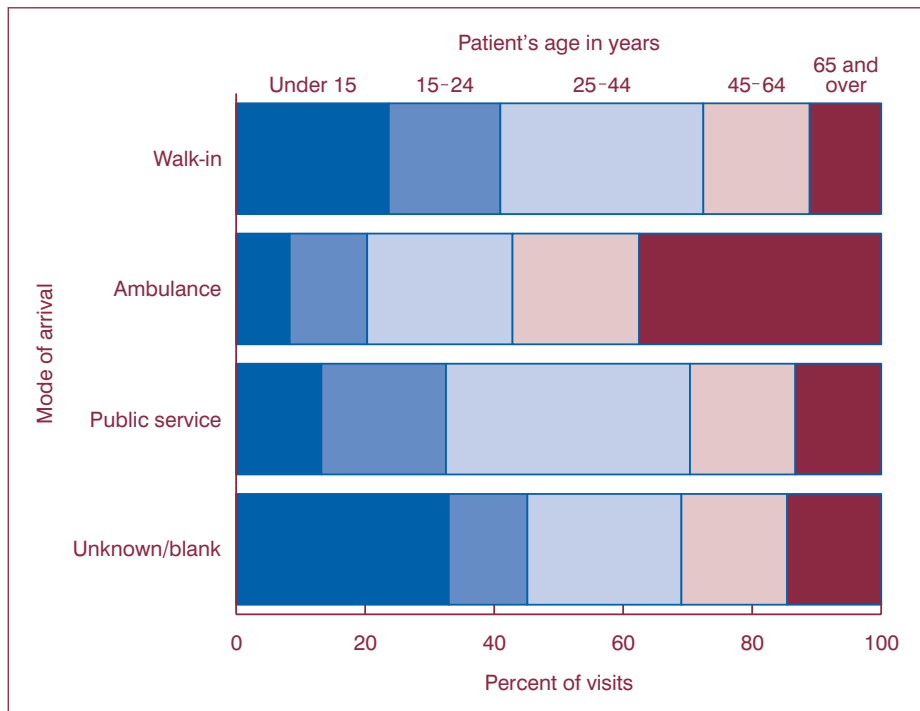


Figure 3. Percent distribution of emergency department visits by patient's age, according to mode of arrival: United States, 2000

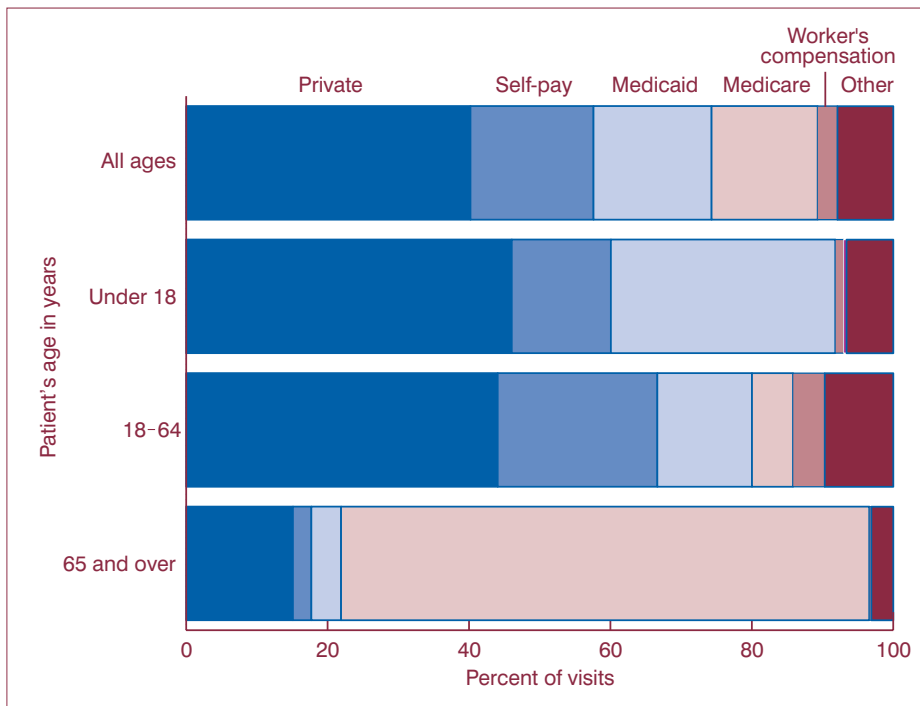


Figure 4. Percent distribution of emergency department visits by expected source of payment, according to patient's age: United States, 2000

were semiurgent, and 10.7 percent were nonurgent. Data on urgency by patient characteristics are presented in table 4. Persons 75 years of age and over had a higher proportion of emergent visits compared with all other age groups except persons 65–74 years of age. Together, emergent and urgent visits accounted for 46.9 percent of all ED visits. From 1997 through 2000, the rate of emergent visits declined by 17 percent (figure 6).

*Arrival time of visit*—The volume of visits increased sharply at 8 a.m. and continued to rise until peaking during the late afternoon and early evening hours (4:00 p.m.–7:59 p.m.) (figure 7). Less than 7 percent of the visits took place in the early morning hours (4:00 a.m.–7:59 a.m.).

*Waiting time to see the physician*—On average, patients waited 45.1 minutes to see a physician. As one might expect, waiting time and immediacy with which the patient should be seen by a physician are related. Patients with emergent conditions waited about 23.9 minutes before seeing a physician. The waiting time for urgent, semiurgent, nonurgent, and unknown/no triage was 38.1 minutes, 56.5 minutes, 67.7 minutes, and 55.5 minutes, respectively. From 1997 through 2000, the mean waiting time of nonurgent visits increased by 33 percent, from 51.0 minutes to 67.7 minutes (figure 8).

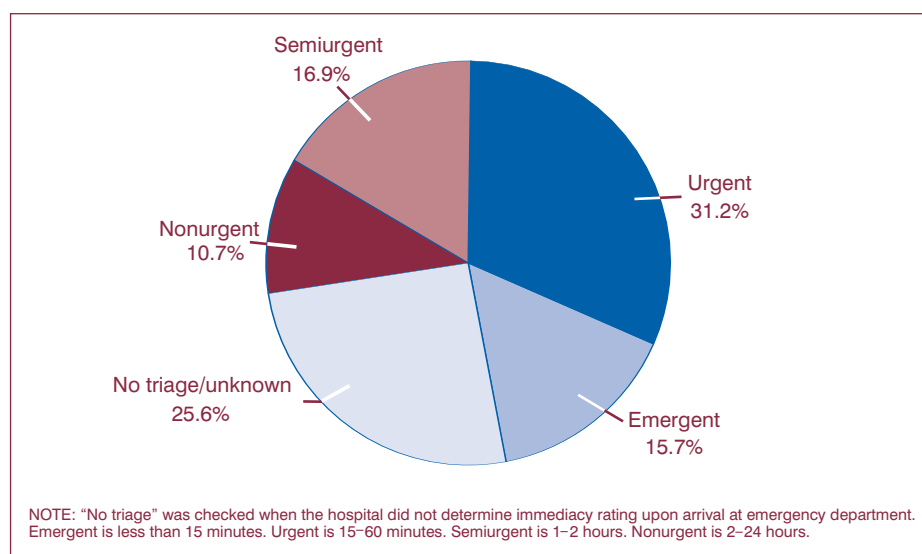
*Patient's principal reason for visit*—The principal reason is the main complaint, symptom, or reason why the patient came to the ED. Up to three reasons for visit were coded according to A Reason for Visit Classification for Ambulatory Care (RVC) (12). The RVC is a classification scheme developed by NCHS that has been used for over 20 years to code patient's complaints or reasons for seeking care. It is divided into eight modules or groups of reasons as shown in table 5 and includes all the reasons for which patients see their health care provider. This includes symptoms, follow-up for prior diagnoses, routine examinations and screening, treatment for conditions and operations, various therapies, and injuries. The symptoms module is

immediacy is assigned upon arrival at the ED by triage staff. The NHAMCS item categorized immediacy into four groups: emergent (less than 15 minutes), urgent (15–60 minutes), semiurgent (1–2 hours), and nonurgent (2–24 hours). For

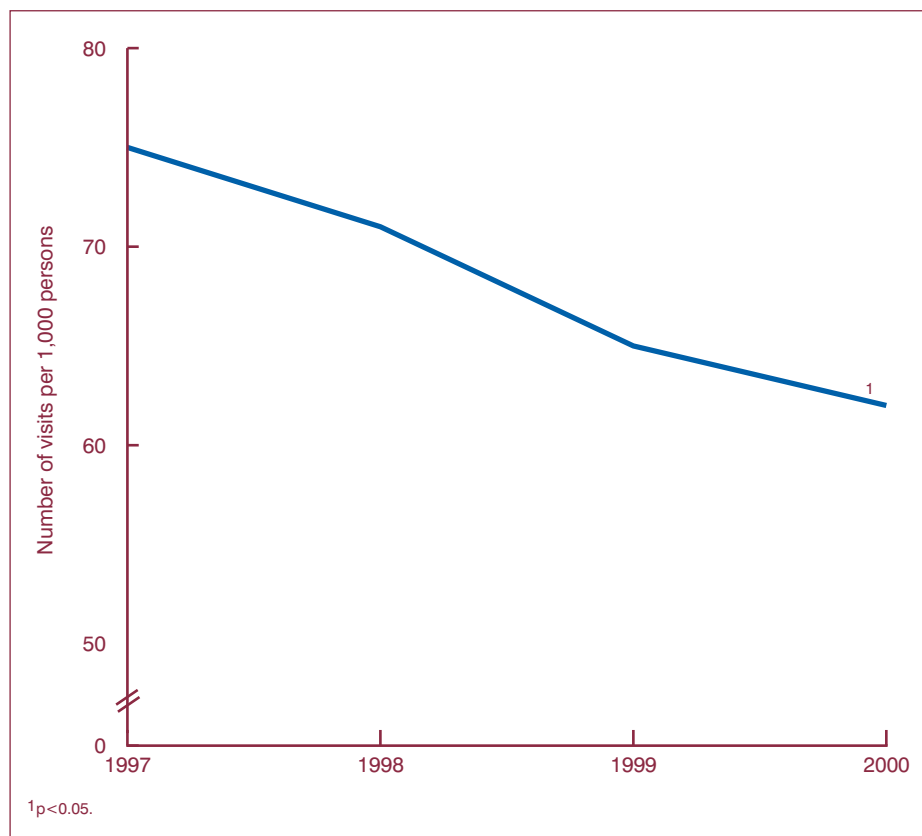
25.6 percent of ED visits, the hospital staff recorded this item as “unknown or no triage.”

As shown in figure 5, 15.7 percent of ED visits were classified as emergent, 31.2 percent were urgent, 16.9 percent





**Figure 5. Percent distribution of emergency department visits by immediacy with which the patient should be seen: United States, 2000**



**Figure 6. Trend in emergency department visit rates for visits triaged as emergent: United States, 1997-2000**

further divided into symptoms that refer to specific body systems, such as respiratory or cardiovascular and lymphatic. Each reason is assigned a 3- or 4-digit classification code (for example, S260- "Abnormal pulsations and palpitations," is further detailed to S260.1- "Increased heartbeat," S260.2-

"Decreased heartbeat," and S260.3- "Irregular heartbeat").

In 2000, about 72 percent of ED visits were made for reasons classified in the symptom module. Within this module, general symptoms such as fever, fatigue, and pain accounted for 15.6 percent of the total (table 5).

Musculoskeletal symptoms accounted for 14.2 percent of visits, and digestive and respiratory symptoms were recorded at 12.4 and 11.6 percent of visits, respectively. The 20 most frequently mentioned principal reasons for visit, representing almost one-half of all visits, are shown in table 6. Stomach and abdominal pain, cramps, and spasms were reported most frequently, accounting for 6.3 percent of all ED visits. Chest pain and fever accounted for 5.4 and 4.1 percent of visits, respectively. Laceration and cuts of the upper extremity was the most frequently mentioned reason for visit in the injury module (2.1 percent). It should be noted that estimates differing in ranked order may not be significantly different from each other.

Because EDs are used primarily to treat acute medical problems and severe injuries, it is helpful to determine whether presenting cases are for illness or injury. While there is a separate item on the Patient Record form to indicate whether the visit was for an injury or poisoning, sometimes an injury reason for visit is specified or an injury diagnosis is rendered without the injury item being checked. Therefore, the visit is counted as an injury visit and the checkbox is coded to "yes" if any of the three reasons for visit were in the injury module or any of the three diagnoses were in the injury or poisoning chapter of the *International Classification of Diseases, 9th Revision Clinical Modification (ICD-9-CM)* (13). This provides a better indicator that the visit involves an injury than using the reason-for-visit module, ICD-9-CM injury diagnosis, or the unedited injury item alone. A more detailed discussion is documented elsewhere (14). If the visit does not involve an injury, it is considered an illness visit. When emergency encounters were classified as illness related, illness conditions and symptoms accounted for 62.6 percent of all ED visits (data not shown).

*Primary diagnosis*—Hospital staff were asked to record the primary diagnosis or problem associated with the patient's most important reason for the current visit and any other significant current diagnoses. Up to three diagnoses were coded according to the ICD-9-CM

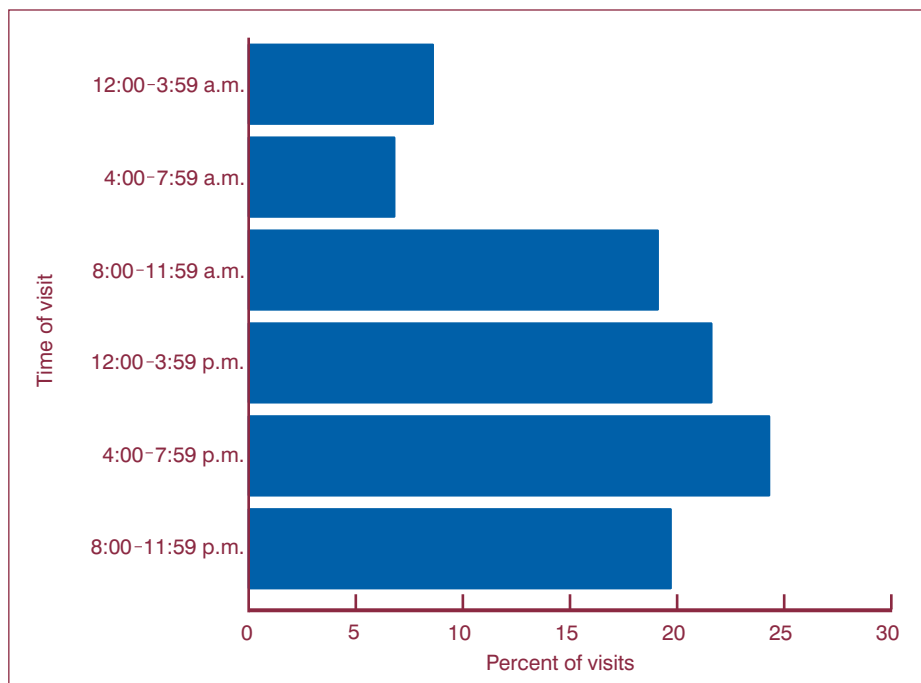


Figure 7. Percent distribution of emergency department visits by time of visit: United States, 2000

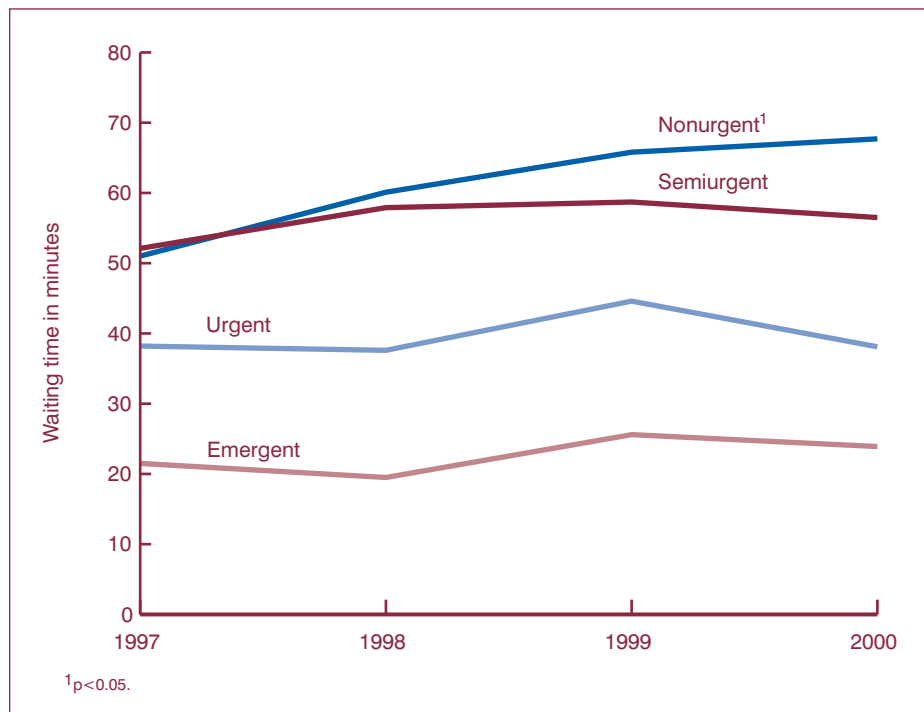


Figure 8. Trends in mean waiting time for emergency department visits by level of immediacy: United States, 1997-2000

(13). Displayed in table 7 are ED visits by primary diagnosis using the major disease categories specified by the ICD-9-CM. Injury and poisoning diagnoses accounted for 28.8 percent of all visits; symptoms, signs, and

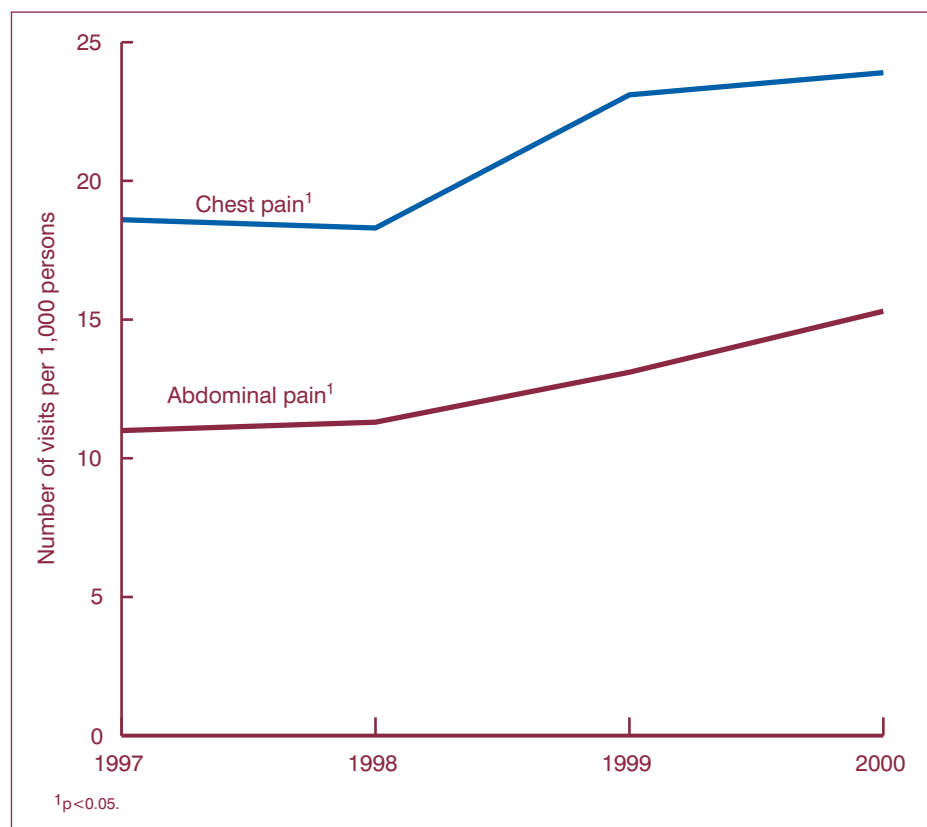
ill-defined conditions and diseases of the respiratory system accounted for 16.4 percent and 11.8 percent, respectively. Some of the most frequently reported primary diagnoses for 2000 are shown in table 8. Contusions and open wounds

lead the list (4.7 percent and 4.3 percent, respectively), followed by acute upper respiratory infections (3.9 percent), abdominal pain (3.3 percent), and chest pain (3.3 percent). From 1997 through 2000, increasing trends in visit rates for a primary diagnosis of chest pain or abdominal pain were found for women 45 years of age and over (figure 9). However, no similar trends were found for men in this age group.

*Injury- or poisoning-related visits*—Approximately 40.4 million ED visits were made for injury or poisoning, which represented 37.4 percent of all ED visits. There were 14.8 injury- or poisoning-related visits per 100 persons (table 9). Seventy-four percent of all injury visits occurred among persons 44 years of age or younger. Persons 15-24 years of age had a higher injury-related visit rate (21.0 visits per 100 persons) than persons in the other age groups except for those 75 years and over. Males had a higher injury-related visit rate than females overall and for all age groups under 45 years. The injury-related visit rate for black persons was higher than for white persons overall and among persons 25-64 years of age.

Table 10 displays data on injury-related ED visits by place of occurrence, whether the injury was intentional, and whether it was work related. Place of occurrence and whether the injury was work related had high levels of missing data (37.1 percent and 29.9 percent, respectively). Approximately 7.5 percent of injuries were intentional, implying that the injury was purposely inflicted. Of these, 71.5 percent were the result of an assault and 28.5 percent were self-inflicted (data not shown). At least 16 percent of injury-related ED visits by persons 18-64 years were related to work. A work-related injury is defined as an injury that happened while the patient was engaged in work activities occurring on or off the employer's premises.

Table 11 shows ED visits by the intent and mechanism of the first-listed external cause-of-injury codes (E-codes). Up to three external causes of injury were coded according to the "Supplementary Classification of



**Figure 9. Trends in emergency department visit rates by selected primary diagnosis groups for females 45 years of age and over: United States, 1997–2000**

External Causes of Injury and Poisoning” in the ICD–9–CM (13).

External cause was not provided for 14.6 percent of injury visits. About 76 percent of injury-related visits were due to an unintentional injury. The reader should keep in mind that the results regarding intentionality of the injury in table 11 will vary from those in table 10. In table 10, intentionality of the injury is based on responses to the checkbox item on the Patient Record form, rather than on the ICD–9–CM groupings used in table 11. Discrepancies may arise in respondent interpretation of intent. For example, in some cases, hospital staff checked the “assault” category for dog bite injuries. However, dog bites are an unintentional injury based on the ICD–9–CM E-codes.

The unintentional injuries due to falls (19.9 percent), striking against or struck accidentally by objects or persons (11.7 percent), and motor vehicle traffic-related injuries (11.3 percent) accounted for the largest proportion of injury-related ED visits. About 4.7 percent of injury-related ED visits were

due to assaults. An unarmed fight or brawl was the leading reason for assault-related injuries (2.4 percent). Self-inflicted injuries resulted in 387,000 ED visits (1.0 percent) with poisoning being the most frequent cause (0.6 percent).

Adverse effects of medical treatment or surgical procedures represented 2.9 percent of injury- or poisoning-related ED visits. Approximately 1.2 million ED visits were for adverse effects. This included adverse drug reactions and complications from surgical and medical procedures.

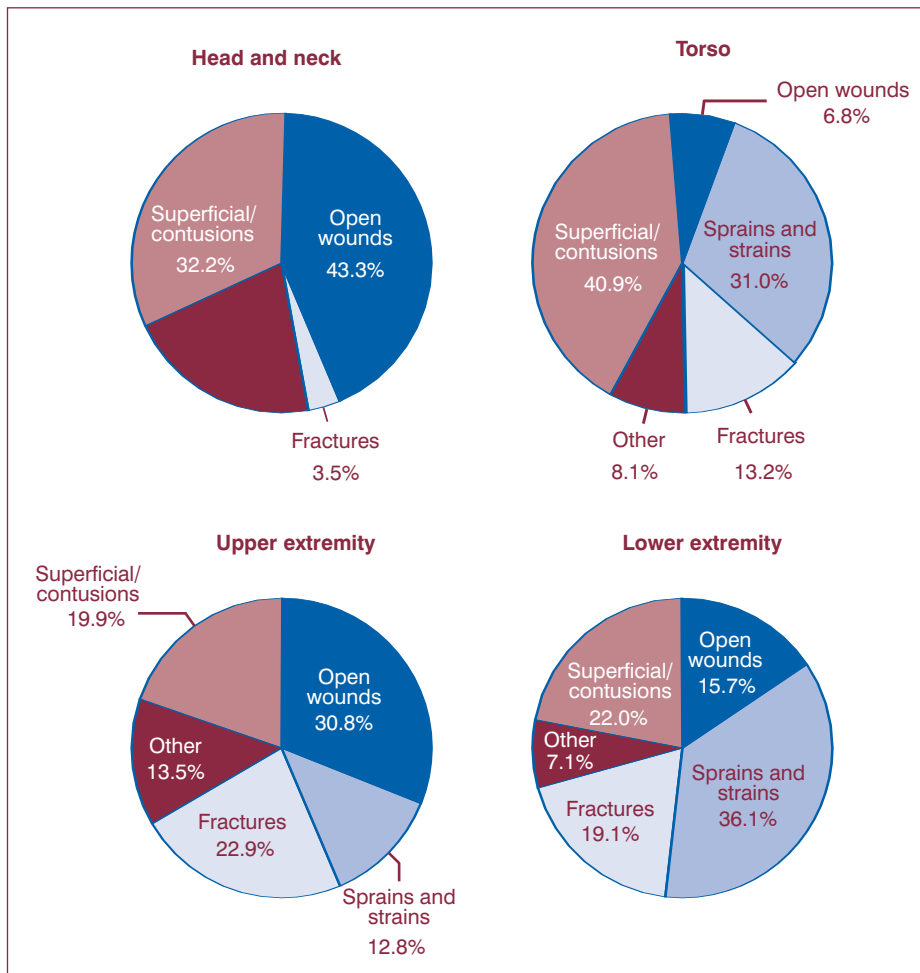
The NHAMCS is the only national ED survey that codes diagnoses using the ICD–9–CM codes. The most frequently recorded primary diagnoses at injury-related visits were open wounds (18.0 percent), superficial injuries/contusions (16.9 percent), and sprains and strains (16.3 percent) (table 12). About 19 percent of primary diagnoses for injury-related visits had ICD–9–CM codes that were classified as illness and 3.1 percent were coded according to the

“Supplementary Classification of Factors Influencing Health Status and Contact with Health Services.”

The Barell Injury Diagnosis Matrix: Classification by Region of Body and Nature of Injury was used in table 13 to show the distribution of injury-related visits by body site of primary diagnosis (15). A detailed description of the ICD–9–CM codes used to create the body site of primary diagnosis reclassification coding is provided in the Technical notes. The most commonly mentioned body site was hand, wrist, and fingers (12.6 percent) followed by face (5.1 percent). Detailed injury-related visits by body site and type of injury are presented in figure 10. Open wound was the most frequently recorded primary diagnosis for visits where there was an injury to the head and neck (43.3 percent) and upper extremity (30.8 percent). About 41 percent of visits for an injury to the torso had a primary diagnosis of superficial injury/contusion, and 36.1 percent of visits for an injury to the lower extremity had a primary diagnosis of superficial sprain and strain.

*Diagnostic and screening services*—Statistics on various diagnostic and screening services ordered or provided by hospital staff during an ED visit are displayed in table 14. As in previous years, the most frequently mentioned diagnostic service was blood pressure check, recorded at 74.7 percent of visits. Other frequently mentioned services included complete blood count (CBC) (26.1 percent), pulse oximetry (24.0 percent), “other blood test” (22.9 percent), chest x ray (16.5 percent), and urinalysis (16.4 percent). Note that for items related to diagnostic and screening services, procedures, providers seen, and disposition, hospital staff were asked to check all of the applicable categories for each item. Therefore, multiple responses could be coded for each visit. Ten percent of ED visits had no diagnostic or screening services.

*Procedures*—Procedures were provided at 43.0 percent of ED visits. For visits with procedures, 83.7 percent had only one procedure recorded. The most frequently mentioned procedures were the administration of intravenous



**Figure 10. Percent distribution of injury-related emergency department visits by body site and type of injury based on primary diagnosis: United States, 2000**

fluids (18.5 percent), wound care (11.3 percent), and orthopedic care (7.7 percent) (table 15).

**Medication therapy**—Hospital staff were instructed to record all new or continued medications ordered, supplied, or administered at the visit. This included prescription and nonprescription preparations, immunizations, desensitizing agents, and anesthetics. Up to six medications, referred to in this survey as drug mentions, were coded per visit according to a classification system developed at NCHS. A report describing the method and instruments used to collect and process drug information is available (16). As used in the NHAMCS, the term “drug” is interchangeable with the term “medication.” Visits with one or more drug mentions are termed “drug visits” in the NHAMCS.

There were 173.5 million drugs mentioned at ED visits during 2000. Medications were used at 73.8 percent of all ED visits (table 16). There was an average of 1.6 drug mentions per ED visit. For visits where medications were mentioned, there was an average 2.2 drugs provided per visit. From 1997 through 2000, drug mention rates increased for persons 15–44 years of age (figure 11).

Drug mentions are shown by therapeutic class in table 17. This classification is based on the therapeutic categories used in the *National Drug Code Directory*, 1995 edition (17). It should be noted that some drugs have more than one therapeutic application. In these cases, the drug was classified under its primary therapeutic use. Drugs used for pain relief were listed most frequently, accounting for about one-third of all drug mentions. The

second and third most frequent drug classes were antimicrobial agents (14.6 percent) and respiratory tract drugs (8.4 percent).

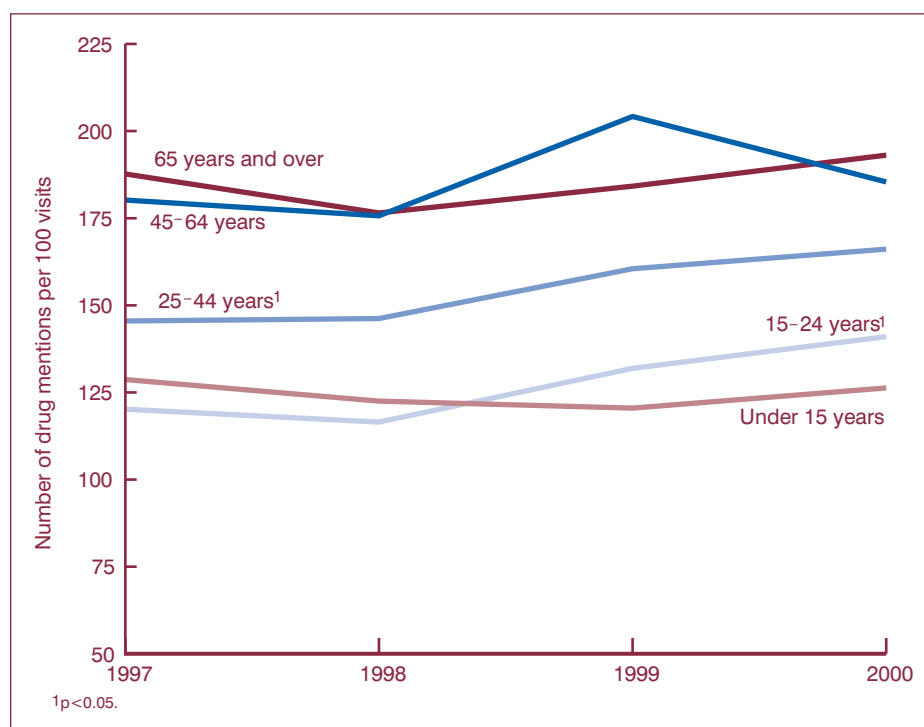
The 20 most frequently used generic substances for 2000 are shown in table 18. Drug products containing more than one ingredient (combination products) are included in the data for each ingredient. For example, acetaminophen with codeine is included in both the count for acetaminophen and the count for codeine. The most frequently occurring generic substances in drugs mentioned at ED visits were acetaminophen, ibuprofen, hydrocodone, and promethazine.

The 20 most frequently mentioned medications are shown in table 19 according to the name written on the ED Patient Record form by hospital staff. This could be a brand name, generic name, or therapeutic effect. Tylenol, which is classified as a nonnarcotic analgesic, was the drug most frequently mentioned, accounting for 5.8 percent of all ED drug visits. Motrin, which is classified as a nonsteroidal anti-inflammatory drug, was prescribed at 4.4 percent of ED drug visits. Other most frequent drug mentions were Phenergan (3.2 percent), Vicodin (3.1 percent), and Toradol (2.8 percent).

**Providers seen**—Staff were asked to check all of the providers seen by the patient. Multiple responses could be coded per visit. Any type of physician was seen at 93.1 percent of visits with a staff physician and registered nurse attending the patient at 84.2 percent and 83.2 percent of ED visits, respectively (table 20). A resident and/or intern was seen at 9.2 percent of visits. For 9.7 percent of visits, a physician other than a staff physician or a resident and/or intern was seen. The provider item was not checked for 1.4 percent of visits.

**Visit disposition**—Staff were asked to record visit disposition and instructed that multiple responses could be coded for this item. About 47 percent of ED visits resulted in a referral to another physician or clinic (table 21). At 27.0 percent of visits, patients were told to return to the ED as needed or by appointment. Patients were told to return to the referring physician at 14.0 percent





**Figure 11. Trends in drug mention rates at emergency department visits by age: United States, 1997–2000**

of visits. About 12 percent of ED visits resulted in hospital admission. This included direct admissions to the intensive care unit, critical care unit, or coronary care unit. This occurred in about 1 out of 10 admissions. For 9.5 percent of ED visits, no followup was planned. At 1.7 percent of visits, the patient left before being seen by a physician.

Additional information about ED utilization is available from the National Center for Health Statistics's Ambulatory Health Care Web site:

<http://www.cdc.gov/nchs/about/major/ahcd/ahcd1.htm>

Individual-year reports and public-use data files are available for download from the Web site. Data from the 2000 NHAMCS will also be available on a public use data tape and CD-ROM. These and other products can be obtained by contacting the NCHS Ambulatory Care Statistics Branch at (301) 458-4600. Queries regarding NHAMCS data may be sent to NCHS via [nchsquery@cdc.gov](mailto:nchsquery@cdc.gov).

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**Table 1. Number, percent distribution, and annual rate of emergency department visits with corresponding standard errors, by selected patient and hospital characteristics: United States, 2000**

Selected patient and hospital characteristics	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent	Number of visits per 100 persons per year <sup>1,2</sup>	Standard error of rate
All visits . . . . .	108,017	4,529	100.0	. . .	39.4	1.7
Patient characteristics						
Age:						
Under 15 years . . . . .	23,390	1,554	21.7	1.1	38.8	2.6
15–24 years . . . . .	17,664	912	16.4	0.4	45.9	2.4
25–44 years . . . . .	32,391	1,454	30.0	0.6	39.5	1.8
45–64 years . . . . .	18,339	793	17.0	0.4	30.3	1.3
65–74 years . . . . .	6,543	394	6.1	0.3	36.9	2.2
75 years and over . . . . .	9,690	548	9.0	0.4	64.8	3.7
Sex and age:						
Female . . . . .	57,130	2,492	52.9	0.5	40.7	1.8
Under 15 years . . . . .	10,135	687	9.4	0.5	34.4	2.3
15–24 years . . . . .	9,996	585	9.3	0.3	52.3	3.1
25–44 years . . . . .	17,515	784	16.2	0.4	41.9	1.9
45–64 years . . . . .	9,655	460	8.9	0.2	30.9	1.5
65–74 years . . . . .	3,606	262	3.3	0.2	37.2	2.7
75 years and over . . . . .	6,223	387	5.8	0.2	68.5	4.3
Male . . . . .	50,887	2,152	47.1	0.5	38.1	1.6
Under 15 years . . . . .	13,255	921	12.3	0.6	42.9	3.0
15–24 years . . . . .	7,668	409	7.1	0.2	39.6	2.1
25–44 years . . . . .	14,876	756	13.8	0.4	37.0	1.9
45–64 years . . . . .	8,684	408	8.0	0.3	29.6	1.4
65–74 years . . . . .	2,937	193	2.7	0.2	36.5	2.4
75 years and over . . . . .	3,466	225	3.2	0.2	59.1	3.8
Race and age:						
White . . . . .	83,147	3,880	77.0	1.3	37.0	1.7
Under 15 years . . . . .	17,029	1,206	15.8	0.8	36.0	2.6
15–24 years . . . . .	13,288	745	12.3	0.4	43.5	2.4
25–44 years . . . . .	24,486	1,240	22.7	0.6	36.7	1.9
45–64 years . . . . .	14,456	684	13.4	0.4	28.1	1.3
65–74 years . . . . .	5,407	363	5.0	0.3	34.9	2.3
75 years and over . . . . .	8,480	481	7.9	0.3	63.1	3.6
Black/ African American . . . . .	21,945	1,560	20.3	1.2	61.7	4.4
Under 15 years . . . . .	5,694	596	5.3	0.5	58.9	6.2
15–24 years . . . . .	3,943	339	3.7	0.3	68.0	5.8
25–44 years . . . . .	6,891	508	6.4	0.4	63.7	4.7
45–64 years . . . . .	3,419	297	3.2	0.3	52.7	4.6
65–74 years . . . . .	969	129	0.9	0.1	58.7	7.8
75 years and over . . . . .	1,029	154	1.0	0.1	91.9	13.8
Asian–Native Hawaiian/Other Pacific Islander . . . . .	2,209	367	2.0	0.3	19.6	3.3
American Indian/Alaska Native . . . . .	631	189	0.6	0.2	25.4	7.6
Hospital characteristics						
Ownership:						
Voluntary . . . . .	77,954	4,651	72.2	2.6	28.4	1.7
Government . . . . .	19,270	2,512	17.8	2.3	7.0	0.9
Proprietary . . . . .	10,792	2,035	10.0	1.9	3.9	0.7
Geographic region:						
Northeast . . . . .	19,628	1,923	18.2	1.6	37.6	3.7
Midwest . . . . .	27,068	2,408	25.1	1.9	40.1	3.6
South . . . . .	42,405	2,884	39.3	2.1	43.8	3.0
West . . . . .	18,915	1,731	17.5	1.5	33.0	3.0
Metropolitan status:						
MSA <sup>3</sup> . . . . .	82,245	4,128	76.1	1.9	37.6	1.9
Non-MSA <sup>3</sup> . . . . .	25,772	2,301	23.9	1.9	46.9	4.2

. . . Category not applicable.

<sup>1</sup>Based on U.S. Census Bureau monthly postcensal estimates of the civilian noninstitutional population of the United States as of July 1, 2000. Figures are consistent with the downloadable series, "U.S. Population Estimates by Age, Sex, Race, and Hispanic Origin: 1980–1999 (with short-term projection to dates in 2000)" and are available at the Census Bureau Internet site: [http://eire.census.gov/popest/archives/national/nat\\_90s\\_detail/nat\\_90s\\_4.php](http://eire.census.gov/popest/archives/national/nat_90s_detail/nat_90s_4.php). Figures have been adjusted for net underenumeration using the 1990 National Population Adjustment Matrix.

<sup>2</sup>Regional and metropolitan area estimates were provided by the Division of Health Interview Statistics (DHIS), NCHS, and are based on Census Bureau estimates of the civilian noninstitutional population as of July 1, 2000. DHIS estimates differ slightly from monthly postcensal estimates because of differences in the adjustment process.

<sup>3</sup>MSA is metropolitan statistical area.

NOTE: Numbers may not add to totals because of rounding.

**Table 2. Percent distribution of emergency department visits with corresponding standard errors by patient's mode of arrival, according to patient's age and sex: United States, 2000**

Patient's age	Number of visits in thousands	Patient's mode of arrival				
		Total	Walk-in	Ambulance	Public service	Unknown/blank
		Percent distribution				
All visits . . . . .	108,017	100.0	78.3	14.0	1.5	6.3
Age						
Under 15 years . . . . .	23,390	100.0	85.5	5.4	0.9	8.2
15–24 years . . . . .	17,664	100.0	83.0	10.3	1.7	5.0
25–44 years . . . . .	32,391	100.0	82.1	10.5	1.9	5.6
45–64 years . . . . .	18,339	100.0	76.0	16.1	1.4	6.5
65–74 years . . . . .	6,543	100.0	69.7	22.7	*	6.6
75 years and over . . . . .	9,690	100.0	49.5	43.1	1.5	6.0
		Standard error of percent				
All visits . . . . .	...	...	0.9	0.5	0.2	0.8
Age						
Under 15 years . . . . .	...	...	2.2	0.5	0.3	2.3
15–24 years . . . . .	...	...	1.0	0.7	0.4	0.6
25–44 years . . . . .	...	...	0.9	0.6	0.3	0.6
45–64 years . . . . .	...	...	1.1	0.8	0.3	0.9
65–74 years . . . . .	...	...	2.0	1.8	...	1.2
75 years and over . . . . .	...	...	1.8	2.0	0.4	0.9

... Category not applicable.

\* Figure does not meet standard of reliability or precision.

NOTE: Numbers may not add to totals because of rounding.

**Table 3. Number and percent distribution of emergency department visits with corresponding standard errors, by primary expected source of payment: United States, 2000**

Visit characteristic	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent
All visits . . . . .	108,017	4,529	100.0	...
Primary expected source of payment				
Private insurance . . . . .	43,460	2,208	40.2	0.9
Self-pay . . . . .	18,771	1,059	17.4	0.7
Medicaid . . . . .	18,045	1,027	16.7	0.7
Medicare . . . . .	16,173	928	15.0	0.6
Workers compensation . . . . .	3,008	209	2.8	0.2
No charge . . . . .	*370	177	*0.3	0.2
Other . . . . .	2,791	366	2.6	0.3
Unknown/blank . . . . .	5,399	603	5.0	0.6

... Category not applicable.

\* Figure does not meet standard of reliability or precision.

NOTE: Numbers may not add to totals because of rounding.

**Table 4. Percent distribution of emergency department visits with corresponding standard errors by immediacy with which patient should be seen, according to patient's age, sex, and race: United States, 2000**

Patient's age, sex, and race	Number of visits in thousands	Immediacy with which patient should be seen					
		Total	Emergent <sup>1</sup>	Urgent <sup>2</sup>	Semiurgent <sup>3</sup>	Nonurgent <sup>4</sup>	Unknown/-no triage <sup>5</sup>
Percent distribution							
All visits . . . . .	108,017	100.0	15.7	31.2	16.9	10.7	25.6
Age							
Under 15 years . . . . .	23,390	100.0	9.9	28.1	21.7	14.0	26.3
15–24 years . . . . .	17,664	100.0	13.2	31.6	17.2	11.4	26.6
25–44 years . . . . .	32,391	100.0	13.0	32.3	16.8	11.4	26.6
45–64 years . . . . .	18,339	100.0	19.4	31.3	16.1	9.0	24.1
65–74 years . . . . .	6,543	100.0	25.8	34.3	11.0	5.8	23.2
75 years and over . . . . .	9,690	100.0	29.6	32.1	10.2	5.3	22.8
Sex and age							
Female . . . . .	57,130	100.0	15.7	31.8	16.9	10.4	25.2
Under 15 years . . . . .	10,135	100.0	9.9	28.2	22.0	13.8	26.1
15–24 years . . . . .	9,996	100.0	12.6	31.9	17.8	11.2	26.5
25–44 years . . . . .	17,515	100.0	12.5	33.0	16.9	11.2	26.5
45–64 years . . . . .	9,655	100.0	18.1	33.2	16.2	9.2	23.3
65–74 years . . . . .	3,606	100.0	25.6	32.6	12.9	5.6	23.3
75 years and over . . . . .	6,223	100.0	29.9	31.3	10.9	5.6	22.3
Male . . . . .	50,887	100.0	15.7	30.6	16.8	11.0	25.9
Under 15 years . . . . .	13,255	100.0	9.8	28.1	21.5	14.1	26.5
15–24 years . . . . .	7,668	100.0	14.0	31.2	16.3	11.6	26.8
25–44 years . . . . .	14,876	100.0	13.5	31.4	16.8	11.7	26.7
45–64 years . . . . .	8,684	100.0	20.9	29.2	16.0	8.8	25.1
65–74 years . . . . .	2,937	100.0	26.1	36.3	8.6	6.0	23.0
75 years and over . . . . .	3,466	100.0	29.2	33.6	8.9	4.7	23.7
Race and age							
White . . . . .	83,147	100.0	16.5	32.3	16.2	10.0	25.0
Under 15 years . . . . .	17,029	100.0	10.4	29.1	22.0	13.7	25.0
15–24 years . . . . .	13,288	100.0	14.2	33.1	16.4	11.1	25.3
25–44 years . . . . .	24,486	100.0	13.4	33.5	16.1	10.3	26.6
45–64 years . . . . .	14,486	100.0	19.9	32.5	15.1	8.5	24.1
65–74 years . . . . .	5,407	100.0	26.9	34.6	10.5	5.6	22.4
75 years and over . . . . .	8,480	100.0	29.3	32.4	10.1	5.2	23.0
Black . . . . .	21,945	100.0	12.2	27.7	19.5	13.3	27.3
Under 15 years . . . . .	5,694	100.0	7.9	25.7	21.8	15.1	29.5
15–24 years . . . . .	3,943	100.0	8.4	27.1	19.9	13.1	31.5
25–44 years . . . . .	6,891	100.0	10.7	29.4	19.2	14.6	26.1
45–64 years . . . . .	3,419	100.0	17.9	26.7	20.1	12.0	23.3
65–74 years . . . . .	969	100.0	19.9	32.7	*13.6	*	26.3
75 years and over . . . . .	1,029	100.0	33.7	28.9	*	*	21.3
Other . . . . .	2,840	100.0	18.7	25.7	16.6	10.2	28.9
Standard error of percent							
All visits . . . . .	...	...	1.1	1.6	1.3	1.3	2.2
Age							
Under 15 years . . . . .	...	...	1.1	2.1	2.3	2.1	3.0
15–24 years . . . . .	...	...	1.2	2.0	1.5	1.6	2.6
25–44 years . . . . .	...	...	1.0	1.9	1.3	1.3	2.4
45–64 years . . . . .	...	...	1.5	1.6	1.5	1.2	2.3
65–74 years . . . . .	...	...	2.0	2.3	1.4	0.9	2.5
75 years and over . . . . .	...	...	2.0	1.8	1.3	1.0	2.4

See footnotes at end of table.



**Table 4. Percent distribution of emergency department visits with corresponding standard errors by immediacy with which patient should be seen, according to patient's age, sex, and race: United States, 2000—Con.**

Patient's age, sex, and race	Number of visits in thousands	Immediacy with which patient should be seen					Unknown/-no triage <sup>5</sup>
		Total	Emergent <sup>1</sup>	Urgent <sup>2</sup>	Semiurgent <sup>3</sup>	Nonurgent <sup>4</sup>	
Sex and age		Standard error of percent					
Female . . . . .	...	...	1.1	1.6	1.3	1.3	2.2
Under 15 years . . . . .	...	...	1.2	2.1	2.4	2.1	3.1
15–24 years . . . . .	...	...	1.2	2.2	1.6	1.8	2.6
25–44 years . . . . .	...	...	1.1	2.1	1.4	1.4	2.5
45–64 years . . . . .	...	...	1.6	1.8	1.6	1.3	2.3
65–74 years . . . . .	...	...	2.8	2.7	1.8	1.2	2.8
75 years and over . . . . .	...	...	2.5	1.9	1.4	1.1	2.6
Male . . . . .	...	...	1.1	1.7	1.5	1.3	2.3
Under 15 years . . . . .	...	...	1.2	2.4	2.4	2.3	3.1
15–24 years . . . . .	...	...	1.6	2.3	1.7	1.7	3.0
25–44 years . . . . .	...	...	1.1	2.0	1.5	1.3	2.5
45–64 years . . . . .	...	...	1.8	1.9	1.6	1.3	2.5
65–74 years . . . . .	...	...	2.4	2.9	1.4	1.5	3.2
75 years and over . . . . .	...	...	2.2	2.7	1.5	1.0	2.9
Race and age							
White . . . . .	...	...	1.2	1.8	1.4	1.3	2.2
Under 15 years . . . . .	...	...	1.2	2.4	2.6	2.2	2.7
15–24 years . . . . .	...	...	1.4	2.3	1.6	1.7	2.6
25–44 years . . . . .	...	...	1.2	2.1	1.4	1.3	2.4
45–64 years . . . . .	...	...	1.7	1.8	1.4	1.2	2.3
65–74 years . . . . .	...	...	2.2	2.5	1.5	1.0	2.5
75 years and over . . . . .	...	...	2.1	2.0	1.4	1.0	2.6
Black . . . . .	...	...	1.1	2.0	2.3	2.2	3.4
Under 15 years . . . . .	...	...	1.2	3.0	2.8	3.3	5.5
15–24 years . . . . .	...	...	1.5	2.7	3.1	2.9	4.5
25–44 years . . . . .	...	...	1.3	2.5	2.3	2.3	3.3
45–64 years . . . . .	...	...	1.9	2.3	3.0	2.5	3.4
65–74 years . . . . .	...	...	4.0	4.5	3.4	...	5.6
75 years and over . . . . .	...	...	4.5	3.1	...	...	4.3
Other . . . . .	...	...	3.0	2.2	3.0	1.8	5.0

... Category not applicable.

\* Figure does not meet standard of reliability or precision.

<sup>1</sup>A visit in which the patient should be seen in less than 15 minutes.

<sup>2</sup>A visit in which the patient should be seen within 15–60 minutes.

<sup>3</sup>A visit in which the patient should be seen within 61–120 minutes.

<sup>4</sup>A visit in which the patient should be seen within 121 minutes–24 hours.

<sup>5</sup>A visit to an emergency department that normally does not determine the level of immediacy of need for care upon a patient's arrival.

NOTE: Numbers may not add to totals because of rounding.

**Table 5. Number and percent distribution of emergency department visits with corresponding standard errors, by patient's principal reason for visit: United States, 2000**

Principal reason for visit and RVC code <sup>1</sup>	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent
All visits . . . . .	108,017	4,529	100.0	. . .
Symptom module. . . . . S001–S999	77,445	3,436	71.7	0.5
General symptoms . . . . . S001–S099	16,877	751	15.6	0.3
Symptoms referable to psychological/mental disorders . . . . . S100–S199	1,980	130	1.8	0.1
Symptoms referable to the nervous system (excluding sense organs) . . . . . S200–S259	6,190	353	5.7	0.2
Symptoms referable to the cardiovascular/lymphatic system . . . . . S260–S299	732	84	0.7	0.1
Symptoms referable to the eyes and ears . . . . . S300–S399	3,757	256	3.5	0.2
Symptoms referable to the respiratory system . . . . . S400–S499	12,522	704	11.6	0.4
Symptoms referable to the digestive system. . . . . S500–S639	13,350	658	12.4	0.3
Symptoms referable to the genitourinary system . . . . . S640–S829	3,760	233	3.5	0.2
Symptoms referable to the skin, hair, and nails . . . . . S830–S899	2,990	216	2.8	0.2
Symptoms referable to the musculoskeletal system . . . . . S900–S999	15,287	803	14.2	0.4
Disease module . . . . . D001–D999	4,169	238	3.9	0.2
Diagnostic/screening and preventive module. . . . . X100–X599	715	87	0.7	0.1
Treatment module . . . . . T100–T899	2,582	188	2.4	0.1
Injuries and adverse effects module . . . . . J001–J999	21,808	936	20.2	0.4
Test results module . . . . . R100–R700	243	51	0.2	0.1
Administrative module. . . . . A100–A140	238	49	0.2	0.1
Other <sup>2</sup> . . . . . U990–U999	817	136	0.8	0.1

. . . Category not applicable.

<sup>1</sup>Based on *A Reason for Visit Classification for Ambulatory Care* (RVC) (12).<sup>2</sup>Includes problems and complaints not elsewhere classified, entries of "none," blanks, and illegible entries.

NOTE: Numbers may not add to totals because of rounding.

**Table 6. Number and percent distribution of emergency department visits with corresponding standard errors, by the 20 principal reasons for visit most frequently mentioned by patients: United States, 2000**

Principal reason for visit and RVC code <sup>1</sup>	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent
All visits . . . . .	108,017	4,529	100.0	. . .
Stomach and abdominal pain, cramps, and spasms . . . . . S545	6,759	405	6.3	0.2
Chest pain and related symptoms . . . . . S050	5,798	334	5.4	0.2
Fever . . . . . S010	4,383	289	4.1	0.2
Headache, pain in head . . . . . S210	2,962	225	2.7	0.2
Shortness of breath . . . . . S415	2,701	205	2.5	0.2
Back symptoms. . . . . S905	2,595	176	2.4	0.1
Cough . . . . . S440	2,592	233	2.4	0.2
Pain, site not referable to a specific body system . . . . . S055	2,335	154	2.2	0.1
Laceration and cuts—upper extremity . . . . . J225	2,322	169	2.1	0.1
Symptoms referable to throat . . . . . S455	2,043	169	2.1	0.1
Vomiting . . . . . S530	2,001	148	1.9	0.1
Accident, NOS <sup>2</sup> . . . . . J810	1,869	148	1.7	0.1
Labored or difficult breathing (dyspnea) . . . . . S420	1,813	158	1.7	0.1
Earache or ear infection . . . . . S355	1,798	155	1.7	0.1
Skin rash. . . . . S860	1,638	141	1.5	0.1
Motor vehicle accident, type of injury unspecified . . . . . J805	1,575	142	1.5	0.1
Low back symptoms. . . . . S910	1,564	121	1.4	0.1
Injury, other and unspecified type — head, neck, and face . . . . . J505	1,523	105	1.4	0.1
Laceration and cuts—facial area . . . . . J210	1,439	134	1.3	0.1
Neck symptoms . . . . . S900	1,436	119	1.3	0.1
All other reasons. . . . .	56,871	2,400	52.6	0.4

. . . Category not applicable.

<sup>1</sup>Based on *A Reason for Visit Classification for Ambulatory Care* (RVC) (12).<sup>2</sup>NOS is not otherwise specified.

NOTE: Numbers may not add to totals because of rounding.

**Table 7. Number and percent distribution of emergency department visits with corresponding standard errors, by primary diagnosis: United States, 2000**

Major disease category and ICD-9-CM code range <sup>1</sup>	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent
All visits . . . . .	108,017	4,529	100.0	. . .
Infectious and parasitic diseases . . . . . 001-139	3,223	221	3.0	0.2
Neoplasms. . . . . 140-239	277	39	0.3	0.0
Endocrine, nutritional and metabolic diseases, and immunity disorders. . . . . 240-279	1,574	146	1.5	0.1
Mental disorders . . . . . 290-319	3,060	203	2.8	0.2
Diseases of the nervous system and sense organs. . . . . 320-389	5,788	337	5.4	0.2
Diseases of the circulatory system . . . . . 390-459	4,397	244	4.1	0.2
Diseases of the respiratory system . . . . . 460-519	12,697	753	11.8	0.4
Diseases of the digestive system . . . . . 520-579	6,294	325	5.8	0.2
Diseases of the genitourinary system . . . . . 580-629	4,991	309	4.6	0.2
Diseases of the skin and subcutaneous tissue. . . . . 680-709	3,026	226	2.8	0.2
Diseases of the musculoskeletal system and connective tissue . . . . . 710-739	5,804	306	5.4	0.2
Symptoms, signs, and ill-defined conditions . . . . . 780-799	17,720	909	16.4	0.5
Injury and poisoning . . . . . 800-999	31,063	1,408	28.8	0.5
Supplementary classification. . . . . V01-V82	3,421	340	3.2	0.3
All other diagnoses <sup>2</sup> . . . . .	1,864	138	1.7	0.1
Unknown <sup>3</sup> . . . . .	2,817	282	2.6	0.3

. . . Category not applicable.

0.0 Quantity more than zero, but less than 0.05.

<sup>1</sup>Based on the *International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) (13)*.<sup>2</sup>Includes diseases of the blood and blood-forming organs (280-289); complications of pregnancy, childbirth, and the puerperium (630-677); congenital anomalies (740-759); and certain disorders originating in the perinatal period (760-779).<sup>3</sup>Includes blank diagnoses, uncodable diagnoses, and illegible diagnoses.

NOTE: Numbers may not add to totals because of rounding.

**Table 8. Number and percent distribution of emergency department visits with corresponding standard errors, by selected primary diagnoses: United States, 2000**

Primary diagnosis and ICD-9-CM code(s) <sup>1</sup>	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent
All visits . . . . .	108,017	4,529	100.0	. . .
Contusion with intact skin surface . . . . . 920-924	5,054	311	4.7	0.2
Open wound, excluding head . . . . . 874-897	4,675	260	4.3	0.2
Acute upper respiratory infection, excluding pharyngitis . . . . . 460-461,463-466	4,211	338	3.9	0.3
Abdominal pain . . . . . 789.0	3,612	251	3.3	0.2
Chest pain . . . . . 786.5	3,603	251	3.3	0.2
Sprains and strains of neck and back . . . . . 846-847	2,735	185	2.5	0.1
Open wound of head . . . . . 870-873	2,694	168	2.5	0.1
Spinal disorders . . . . . 720-724	2,586	166	2.4	0.1
Fractures, excluding lower limb . . . . . 800-819	2,538	181	2.3	0.1
Otitis media and eustachian tube disorders. . . . . 381-382	2,512	206	2.3	0.2
Sprains and strains, excluding ankle and back. . . . . 840-844,845.1,848	2,500	157	2.3	0.1
Asthma. . . . . 493	1,835	147	1.7	0.1
Superficial injury . . . . . 910-919	1,784	147	1.7	0.1
Chronic and unspecified bronchitis . . . . . 490-491	1,756	193	1.6	0.2
Rheumatism, excluding lower back. . . . . 725-729	1,720	131	1.6	0.1
Urinary tract infection . . . . . 599.0	1,640	149	1.5	0.1
Heart disease, excluding ischemic . . . . . 391-392.0,393-398,402,404,415-416,420-429	1,603	150	1.5	0.1
Acute pharyngitis. . . . . 462	1,574	166	1.5	0.1
Sprains and strains of ankle . . . . . 845.0	1,375	122	1.3	0.1
Arthropathies and spinal disorders . . . . . 710-719	1,333	101	1.2	0.1
All other diagnoses . . . . .	56,678	2,321	52.5	0.5

. . . Category not applicable.

<sup>1</sup>Based on the *International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) (13)*. However, certain codes have been combined in this table to describe the utilization of ambulatory care services.

NOTE: Numbers may not add to totals because of rounding.

**Table 9. Number, percent distribution, and annual rate of injury-related emergency department visits with corresponding standard errors, by patient's age, sex, and race: United States, 2000**

Patient's age, sex, and race	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent	Number of visits per 100 persons per year <sup>1</sup>	Standard error of rate
All injury-related visits . . . . .	40,447	1,814	100.0	...	14.8	0.7
Age						
Under 15 years . . . . .	9,034	554	22.3	0.9	15.0	0.9
15–24 years . . . . .	8,090	428	20.0	0.5	21.0	1.1
25–44 years . . . . .	12,946	653	32.0	0.7	15.8	0.8
45–64 years . . . . .	6,004	311	14.8	0.5	9.9	0.5
65–74 years . . . . .	1,757	134	4.3	0.3	9.9	0.8
75 years and over . . . . .	2,617	180	6.5	0.4	17.5	1.2
Sex and age						
Female . . . . .	18,311	857	45.3	0.6	13.0	0.6
Under 15 years . . . . .	3,443	232	8.5	0.4	11.7	0.8
15–24 years . . . . .	3,500	233	8.7	0.4	18.3	1.2
25–44 years . . . . .	5,684	318	14.1	0.5	13.6	0.8
45–64 years . . . . .	2,867	166	7.1	0.3	9.2	0.5
65–74 years . . . . .	1,039	97	2.6	0.2	10.7	1.0
75 years and over . . . . .	1,779	132	4.4	0.3	19.6	1.5
Male . . . . .	22,137	1,023	54.7	0.6	16.6	0.8
Under 15 years . . . . .	5,591	369	13.8	0.6	18.1	1.2
15–24 years . . . . .	4,590	268	11.4	0.5	23.7	1.4
25–44 years . . . . .	7,262	395	18.0	0.5	18.1	1.0
45–64 years . . . . .	3,137	192	7.8	0.3	10.7	0.7
65–74 years . . . . .	719	70	1.8	0.2	8.9	0.9
75 years and over . . . . .	838	96	2.1	0.2	14.3	1.6
Race and age						
White . . . . .	32,384	1,593	80.1	1.1	14.4	0.7
Under 15 years . . . . .	7,002	460	17.8	0.7	14.8	1.0
15–24 years . . . . .	6,310	360	16.0	0.5	20.6	1.2
25–44 years . . . . .	10,147	564	25.8	0.7	15.2	0.8
45–64 years . . . . .	5,022	288	12.8	0.5	9.8	0.6
65–74 years . . . . .	1,503	125	3.8	0.3	9.7	0.8
75 years and over . . . . .	2,400	173	6.1	0.4	17.9	1.3
Black . . . . .	6,972	473	17.2	1.0	19.6	1.3
Under 15 years . . . . .	1,759	191	4.5	0.5	18.2	2.0
15–24 years . . . . .	1,567	158	4.0	0.4	27.0	2.7
25–44 years . . . . .	2,413	181	6.1	0.4	22.3	1.7
45–64 years . . . . .	852	78	2.2	0.2	13.1	1.2
65–74 years . . . . .	217	36	0.6	0.1	13.2	2.2
75 years and over . . . . .	163	34	0.4	0.1	14.6	3.1
Other . . . . .	1,091	167	2.7	0.4	7.9	1.2

... Category not applicable.

<sup>1</sup>Based on U.S. Census Bureau monthly postcensal estimates of the civilian noninstitutional population of the United States as of July 1, 2000. Figures are consistent with the downloadable series, "U.S. Population Estimates by Age, Sex, Race, and Hispanic Origin: 1980–1999 (with short-term projection to dates in 2000)" available at the Census Bureau Internet site: [http://eire.census.gov/popest/archives/national/nat\\_90s\\_detail/nat\\_90s\\_4.php](http://eire.census.gov/popest/archives/national/nat_90s_detail/nat_90s_4.php). Figures have been adjusted for net underenumeration using the 1990 National Population Adjustment Matrix.

NOTE: Numbers may not add to totals because of rounding.



**Table 10. Number and percent distribution of emergency department visits with corresponding standard errors, by selected characteristics of the injury according to patient's age: United States, 2000**

Selected characteristics of the injury	All ages		Under 18 years		18-64 years		65 years and over	
	Number of visits in thousands	Percent distribution	Number of visits in thousands	Percent distribution	Number of visits in thousands	Percent distribution	Number of visits in thousands	Percent distribution
All injury-related visits . . . . .	40,447	100.0	11,383	100.0	24,690	100.0	4,374	100.0
Place of occurrence								
Residence . . . . .	12,163	30.1	4,197	36.9	5,833	23.6	2,133	48.8
Street or highway . . . . .	5,404	13.4	1,213	10.7	3,908	15.8	283	6.5
Industrial places . . . . .	1,960	4.8	*	*	1,909	7.7	*	*
Recreation/sports area . . . . .	2,370	5.9	1,200	10.5	1,110	4.5	*	*
Other public building . . . . .	974	2.4	148	1.3	726	2.9	*	*
School . . . . .	879	2.2	728	6.4	145	0.6	*	*
Other . . . . .	1,686	4.2	253	2.2	1,290	5.2	143	3.3
Unknown . . . . .	15,011	37.1	3,622	31.8	9,769	39.6	1,621	37.1
Intentionality								
Yes (self-inflicted) . . . . .	864	2.1	179	1.6	659	2.7	*	*
Yes (assault) . . . . .	2,172	5.4	434	3.8	1,709	6.9	*	*
No, Unintentional . . . . .	32,055	79.3	9,592	84.3	18,815	76.2	3,647	83.4
Unknown/blank . . . . .	5,357	13.2	1,177	10.3	3,508	14.2	672	15.4
Work-related								
Yes . . . . .	4,206	10.4	117	1.0	4,019	16.3	*	*
No . . . . .	24,158	59.7	8,562	75.2	12,859	52.1	2,736	62.6
Unknown/blank . . . . .	12,084	29.9	2,704	23.8	7,812	31.6	1,567	35.8
	Standard error in thousands	Standard error of percent	Standard error in thousands	Standard error of percent	Standard error in thousands	Standard error of percent	Standard error in thousands	Standard error of percent
All injury-related visits . . . . .	1,814	...	644	...	1,154	...	268	...
Place of occurrence								
Residence . . . . .	682	0.9	309	1.5	380	1.0	154	2.0
Street or highway . . . . .	325	0.5	103	0.7	255	0.7	52	1.1
Industrial places . . . . .	177	0.4	...	...	175	0.6	...	...
Recreation/sports area . . . . .	210	0.4	107	0.8	128	0.4	...	...
Other public building . . . . .	94	0.2	33	0.3	81	0.3	...	...
School . . . . .	108	0.3	98	0.8	34	0.1	...	...
Other . . . . .	145	0.3	43	0.4	118	0.4	36	0.8
Unknown . . . . .	726	1.0	272	1.7	493	1.2	132	2.0
Intentionality								
Yes (self-inflicted) . . . . .	86	0.2	38	1.6	75	0.3	...	...
Yes (assault) . . . . .	143	0.3	52	0.4	127	0.5	...	...
No, Unintentional . . . . .	1,529	0.8	566	1.2	927	0.8	234	1.7
Unknown/blank . . . . .	357	0.7	146	1.2	233	0.7	82	1.6
Work-related								
Yes . . . . .	257	0.5	26	0.2	249	0.7	...	...
No . . . . .	1,255	1.0	520	1.4	719	1.1	191	1.9
Unknown/blank . . . . .	576	1.0	219	1.4	393	1.1	126	1.8

... Category not applicable.

\* Figure does not meet standard of reliability or precision.

NOTE: Numbers may not add to totals because of rounding.

**Table 11. Number and percent distribution of injury-related emergency department visits with corresponding standard errors by intent and mechanism of external cause: United States, 2000**

Intent and mechanism <sup>1</sup>	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent
All injury-related visits . . . . .	40,447	1,814	100.0	. . .
Unintentional injuries . . . . .	30,907	1,502	76.4	0.8
Falls . . . . .	8,053	409	19.9	0.6
Struck against or struck accidentally by objects or persons . . . . .	4,727	306	11.7	0.5
Motor vehicle traffic . . . . .	4,563	277	11.3	0.4
Cutting or piercing instruments or objects . . . . .	2,998	212	7.4	0.4
Natural and environmental factors . . . . .	1,802	177	4.5	0.4
Overexertion and strenuous movements . . . . .	1,787	147	4.4	0.3
Poisoning by drugs, medical substances, biological, other solid and liquid substances, gases, and vapors . . . . .	796	87	2.0	0.2
Pedal cycle, nontraffic and other . . . . .	482	59	1.2	0.1
Motor vehicle, nontraffic . . . . .	411	58	1.0	0.1
Fire and flames, hot substances or object, caustic or corrosive material and steam . . . . .	392	46	1.0	0.1
Machinery . . . . .	310	54	0.8	0.1
Other transportation . . . . .	*	. . .	*	. . .
Other mechanism <sup>2</sup> . . . . .	2,482	191	6.1	0.3
Mechanism unspecified . . . . .	1,978	236	4.9	0.5
Intentional injuries . . . . .	2,299	154	5.7	0.3
Assault . . . . .	1,881	130	4.7	0.3
Unarmed fight or brawl, striking by blunt or thrown object . . . . .	980	94	2.4	0.2
Cutting or piercing instrument . . . . .	143	29	0.4	0.1
Other and unspecified mechanism <sup>3</sup> . . . . .	758	77	1.9	0.2
Self-inflicted . . . . .	387	55	1.0	0.1
Poisoning by solid or liquid substances, gases, and vapors . . . . .	248	42	0.6	0.1
Other and unspecified mechanism <sup>4</sup> . . . . .	139	34	0.3	0.1
Other causes of violence . . . . .	*	. . .	*	. . .
Injuries of undetermined intent . . . . .	172	30	0.4	0.1
Adverse effects of medical treatment . . . . .	1,169	92	2.9	0.2
Blank cause <sup>5</sup> . . . . .	5,900	377	14.6	0.8

. . . Category not applicable.

\* Figure does not meet standard of reliability or precision.

<sup>1</sup>Based on the "Supplementary Classification of External Cause of Injury and Poisoning," *International Classification of Diseases, 9th revision, Clinical Modification (ICD-9-CM) (13)*. A detailed description of the ICD-9-CM E-codes used to create the groupings in this table is provided in the Technical notes.

<sup>2</sup>Includes drowning, suffocation, firearm, and other mechanism.

<sup>3</sup>Includes assault by firearms and explosives, and other mechanism.

<sup>4</sup>Includes injury by cutting and piercing instrument, and other and unspecified mechanism.

<sup>5</sup>Includes illegible entries and blanks.

NOTE: Numbers may not add to totals because of rounding.

**Table 12. Number and percent distribution of injury-related emergency department visits with corresponding standard errors, by primary diagnosis: United States, 2000**

Type of injury and ICD-9-CM code range <sup>1</sup>	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent
All injury visits . . . . .	40,447	1,814	100.0	...
Open wounds . . . . . 870-884, 890-894	7,291	363	18.0	0.5
Superficial injuries/contusions . . . . . 910-924	6,838	395	16.9	0.6
Sprains and strains . . . . . 840-848	6,610	369	16.3	0.5
Fractures . . . . . 800-829	3,813	231	9.4	0.4
Dislocations . . . . . 830-839	543	65	1.3	0.2
Internal organs . . . . . 850-854, 860-869,952	433	62	1.1	0.2
Burns . . . . . 940-949	434	48	1.1	0.1
System wide . . . . .	1,705	131	4.2	0.3
Foreign bodies . . . . . 930-939	542	68	1.3	0.2
Toxic effects <sup>2</sup> . . . . . 980-989	509	69	1.3	0.2
Poisoning . . . . . 960-979	483	57	1.2	0.1
Other system wide <sup>3</sup> . . . . .	171	38	0.4	0.1
Illness diagnoses <sup>4</sup> . . . . . 001-799	7,507	450	18.6	0.7
Musculoskeletal system . . . . . 710-739	2,197	168	5.4	0.4
Symptoms and ill-defined conditions . . . . . 780-799	1,353	106	3.4	0.2
Skin and subcutaneous tissue . . . . . 680-709	910	105	2.3	0.2
Mental disorders . . . . . 290-319	770	79	1.9	0.2
Nervous system and sense organs . . . . . 320-389	526	72	1.3	0.2
Other illnesses . . . . . 001-289, 390-677, 740-779	1,750	136	4.3	0.3
Other adverse effects and medical complications <sup>5</sup> . . . . .	1,281	105	3.2	0.2
Anaphylactic shock <sup>6</sup> . . . . . 995.0-995.4, 995.6	889	87	2.2	0.2
Surgical and medical complications . . . . . 996-999	392	53	1.0	0.1
Supplementary classification . . . . . V01-V82	1,259	130	3.1	0.3
Other types of injury diagnoses <sup>7</sup> . . . . .	2,117	174	5.2	0.4
Unknown <sup>8</sup> . . . . .	618	80	1.5	0.2

... Category not applicable.

<sup>1</sup>Based on the *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD-9-CM) (13). A detailed description of the Barell Injury Diagnosis Matrix: Classification by Region of Body and Nature of Injury is provided in the Technical notes. Three additional categories were added that were not in the Barell Matrix to account for all injury-related visits: illness diagnoses, supplementary classification, and other adverse effects and medical complications.

<sup>2</sup>Toxic effects of substances chiefly nonmedicinal as to source, e.g., alcohol, metals, carbon monoxide.

<sup>3</sup>Other system-wide includes other and unspecified effects of external causes (990-994), late effects of injuries, poisonings, toxic effects, and other external causes (905-909), early complications of trauma (958), child maltreatment syndrome (995.5), and adult abuse (995.80-995.85).

<sup>4</sup>Illness diagnoses and supplementary classification injury-related visits either have a second- or third-listed injury diagnosis or the primary diagnoses relates to a chronic or late effect of an injury.

<sup>5</sup>Includes late effect of complications of surgical and medical care, late effect of certain other external causes, and late effect of drug, medicinal or biological substance (903.3-909.5), and malignant hyperthermia and other adverse effects (995.86-995.89).

<sup>6</sup>Includes anaphylactic shock, angioneurotic edema, unspecified adverse effect of drug, medicinal and biological substance, unspecified allergy, and shock due to anesthesia.

<sup>7</sup>Other injury-related diagnoses includes amputations (885-887, 895-897), blood vessels (900-904), crushing (925-929), and nerves and spinal cord (950-951, 953-957).

<sup>8</sup>Includes blank diagnoses, uncodable diagnoses, and illegible diagnoses.

NOTE: Numbers may not add to totals because of rounding.

**Table 13. Number and percent distribution of injury-related emergency department visits with corresponding standard errors, by body site of primary diagnosis: United States, 2000**

Body site <sup>1</sup>	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent
All injury visits . . . . .	40,447	1,814	100.0	. . .
Head and neck . . . . .	6,335	345	15.7	0.5
Traumatic brain Injury . . . . .	424	60	1.1	0.1
Other head . . . . .	1,423	111	3.5	0.3
Face . . . . .	2,064	144	5.1	0.3
Eye . . . . .	720	82	1.8	0.2
Head, face, neck unspecified . . . . .	1,704	143	4.2	0.3
Spinal Cord . . . . .	*	*	*	*
Vertebral Column . . . . .	2,265	173	5.6	0.3
Cervical . . . . .	1,403	124	3.5	0.2
Thoracic/dorsal . . . . .	178	32	0.4	0.1
Lumbar . . . . .	671	83	1.7	0.2
Other vertebral column . . . . .	*	*	*	*
Torso . . . . .	2,040	144	5.0	0.3
Chest . . . . .	842	74	2.1	0.2
Abdomen . . . . .	*	*	*	*
Pelvis and urogenital . . . . .	443	60	1.1	0.1
Trunk . . . . .	169	33	0.4	0.1
Back and buttocks . . . . .	493	50	1.2	0.1
Upper extremity . . . . .	8,487	458	21.0	0.5
Shoulder and upper arm . . . . .	1,603	129	4.0	0.3
Forearm and elbow . . . . .	1,314	112	3.3	0.2
Hand, wrist, and fingers . . . . .	5,083	301	12.6	0.4
Other and unspecified upper extremity . . . . .	487	62	1.2	0.1
Lower extremity . . . . .	6,346	334	15.7	0.5
Hip . . . . .	392	52	1.0	0.1
Upper leg and thigh . . . . .	166	33	0.4	0.1
Knee . . . . .	494	62	1.2	0.2
Lower leg and ankle . . . . .	1,958	149	4.8	0.3
Foot and toes . . . . .	1,593	133	3.9	0.3
Other and unspecified lower extremity . . . . .	1,744	129	4.3	0.3
System-wide . . . . .	1,705	131	4.2	0.3
Other and unspecified body site injuries . . . . .	2,592	196	6.4	0.4
Other adverse effects and medical complications . . . . .	1,281	105	3.2	0.2
All other diagnoses <sup>2</sup> . . . . .	8,766	506	21.7	0.7
Unknown/3 . . . . .	618	80	1.5	0.2

. . . Category not applicable.

\* Estimates does not meet standard of reliability or precision.

<sup>1</sup>Based on the *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD-9-CM) (13). A detailed description of the Barell Injury Diagnosis Matrix: Classification by Region of Body and Nature of Injury is provided in the Technical notes. Three additional categories were added that were not in the Barell Injury Diagnosis Matrix to account for all injury-related visits: illness diagnoses, supplementary classification, and other adverse effects and medical complications.

<sup>2</sup>All other diagnoses included musculoskeletal system (710-739), symptoms and ill-defined conditions (780-799), skin and subcutaneous tissue (680-709), mental disorders (290-319), nervous system and sense organs (320-389), other illnesses (001-289, 390-677, 740-779), and supplementary classification (V01-V82).

<sup>3</sup>Includes blank diagnoses, uncodable diagnoses, and illegible diagnoses.

NOTE: Numbers may not add to totals because of rounding.



**Table 14. Number and percent of emergency department visits with corresponding standard errors, by diagnostic and screening services: United States, 2000**

Diagnostic and screening services ordered or provided	Number of visits in thousands <sup>1</sup>	Standard error in thousands	Percent of visits	Standard error of percent
All visits . . . . .	108,017	4,529	...	...
None . . . . .	10,785	906	10.0	0.7
Laboratory tests				
CBC <sup>2</sup> . . . . .	28,200	1,388	26.1	0.6
Other blood test . . . . .	24,741	1,277	22.9	0.7
Urinalysis . . . . .	17,738	865	16.4	0.4
Pregnancy test . . . . .	3,132	224	2.9	0.2
Blood alcohol concentration . . . . .	1,546	130	1.4	0.1
Other STD test <sup>3</sup> . . . . .	950	128	0.9	0.1
HIV serology <sup>4</sup> . . . . .	215	54	0.2	0.1
Diagnostic tests				
Blood pressure . . . . .	80,707	3,726	74.7	1.4
Pulse oximetry . . . . .	25,881	1,713	24.0	1.3
EKG <sup>5</sup> . . . . .	15,828	805	14.7	0.5
Cardiac monitor . . . . .	8,364	563	7.7	0.4
Imaging				
Chest x ray . . . . .	17,811	927	16.5	0.5
Extremity x ray . . . . .	12,262	642	11.4	0.4
Other x ray . . . . .	10,898	650	10.1	0.4
CAT scan <sup>6</sup> . . . . .	5,707	333	5.3	0.2
Ultrasound . . . . .	2,065	160	1.9	0.1
Other diagnostic image . . . . .	1,288	134	1.2	0.1
MRI imaging <sup>7</sup> . . . . .	224	40	0.2	0.0
Examinations				
Mental status exam . . . . .	14,663	1,628	13.6	1.4
Other test . . . . .	10,074	1,453	9.3	1.2

... Category not applicable.

0.0 Quantity more than zero but less than 0.05.

<sup>1</sup>Total exceeds "All visits" because more than one service may be reported per visit.

<sup>2</sup>CBC is complete blood count.

<sup>3</sup>STD is sexually transmitted disease.

<sup>4</sup>HIV is human immunodeficiency virus.

<sup>5</sup>EKG is electrocardiogram.

<sup>6</sup>CAT is computerized axial tomography.

<sup>7</sup>MRI is magnetic resonance imaging.

**Table 15. Number and percent of emergency department visits with corresponding standard errors, by selected procedures: United States, 2000**

Procedures provided by hospital staff	Number of visits in thousands <sup>1</sup>	Standard error in thousands <sup>1</sup>	Percent of visits	Standard error of percent
All visits . . . . .	108,017	4,529	...	...
None . . . . .	58,781	2,650	54.4	0.9
IV fluids <sup>2</sup> . . . . .	19,949	1,133	18.5	0.7
Wound care . . . . .	12,237	643	11.3	0.3
Orthopedic care . . . . .	8,336	519	7.7	0.3
Eye/ENT care <sup>3</sup> . . . . .	3,196	308	3.0	0.3
Bladder catheter . . . . .	2,120	192	2.0	0.2
OB/GYN care <sup>4</sup> . . . . .	1,917	154	1.8	0.1
NG tube/gastric lavage <sup>5</sup> . . . . .	459	58	0.4	0.1
Endotracheal intubation . . . . .	369	56	0.3	0.1
CPR <sup>6</sup> . . . . .	320	56	0.3	0.1
Lumbar puncture . . . . .	207	44	0.2	0.0
Other . . . . .	3,525	310	3.3	0.2
Blank . . . . .	2,781	352	2.6	0.3

... Category not applicable.

0.0 Quantity more than zero but less than 0.05.

<sup>1</sup>Total exceeds "All visits" because more than one procedure may be reported per visit.

<sup>2</sup>IV is intravenous fluids.

<sup>3</sup>ENT is ear, nose, throat.

<sup>4</sup>OB/GYN is obstetrics/gynecology.

<sup>5</sup>NG is nasogastric.

<sup>6</sup>CPR is cardiopulmonary resuscitation.

**Table 16. Number and percent distribution of emergency department visits with corresponding standard errors, by medication therapy and number of medications provided or prescribed: United States, 2000**

Medication therapy	Number of visits in thousands <sup>1</sup>	Standard error in thousands	Percent distribution	Standard error of percent
All visits . . . . .	108,017	4,529	100.0	. . .
Drug visits <sup>2</sup> . . . . .	79,692	3,614	73.8	0.8
Visits without mention of medication . . . . .	28,325	1,357	26.2	0.8
Number of medications provided or prescribed				
All visits . . . . .	108,017	4,529	100.0	. . .
0 . . . . .	28,325	1,357	26.2	0.8
1 . . . . .	31,893	1,408	29.5	0.6
2 . . . . .	23,679	1,110	21.9	0.4
3 . . . . .	12,078	641	11.2	0.3
4 . . . . .	5,640	445	5.2	0.3
5 . . . . .	2,970	273	2.8	0.2
6 . . . . .	3,431	432	3.2	0.4

. . . Category not applicable.

<sup>1</sup>Includes prescription drugs, over-the-counter preparations, immunizations, and desensitizing agents.<sup>2</sup>Visits at which one or more drugs were provided or prescribed.

NOTE: Numbers may not add to totals because of rounding.

**Table 17. Number, percent distribution, and annual rate of drug mentions at emergency department visits with corresponding standard errors, by therapeutic classification: United States, 2000**

Therapeutic classification <sup>1</sup>	Number of drug mentions in thousands	Standard error in thousands	Percent distribution	Standard error of percent	Number of drug mentions per 100 visits per year <sup>2</sup>	Standard error of rate
All drug mentions. . . . .	173,483	9,200	100.0	. . .	160.6	3.9
Drugs used for relief of pain . . . . .	55,538	2,767	32.0	0.5	51.4	1.1
Antimicrobial agents . . . . .	25,409	1,401	14.6	0.4	23.5	0.7
Respiratory tract drugs . . . . .	14,566	893	8.4	0.2	13.5	0.5
Cardiovascular-renal drugs. . . . .	11,652	1,038	6.7	0.4	10.8	0.8
Central nervous system drugs . . . . .	10,251	703	5.9	0.2	9.5	0.5
Gastrointestinal agents . . . . .	9,214	605	5.3	0.2	8.5	0.4
Hormones and agents affecting hormonal mechanisms . . . . .	7,952	557	4.6	0.2	7.4	0.4
Otologics . . . . .	6,836	455	3.9	0.2	6.3	0.3
Metabolic/nutrients . . . . .	6,139	558	3.5	0.2	5.7	0.4
Anesthetic drugs . . . . .	5,729	434	3.3	0.2	5.3	0.3
Neurologic drugs . . . . .	4,103	318	2.4	0.1	3.8	0.2
Skin/mucous membrane drugs . . . . .	4,038	385	2.3	0.1	3.7	0.3
Immunologics . . . . .	3,553	234	2.0	0.1	3.3	0.2
Hematologic agents . . . . .	2,596	260	1.5	0.1	2.4	0.2
Ophthalmics . . . . .	1,382	130	0.8	0.1	1.3	0.1
Antidotes . . . . .	288	41	0.2	0.0	0.3	0.0
Antiparasitics . . . . .	273	53	0.2	0.0	0.3	0.0
Oncolytics . . . . .	169	46	0.1	0.0	0.2	0.0
Contrast media/radiopharmaceuticals . . . . .	119	29	0.1	0.0	0.1	0.0
Other and unclassified <sup>3</sup> . . . . .	3,676	344	2.1	0.2	3.4	0.3

. . . Category not applicable.

0.0 Quantity more than 0 but less than 0.05.

<sup>1</sup>Based on the standard drug classification used in the *National Drug Code Directory*, 1995 edition (17).<sup>2</sup>Number of drug mentions divided by total number of visits multiplied by 100.<sup>3</sup>Includes unclassified/miscellaneous drugs, and homeopathic products.

NOTE: Numbers may not add to totals because of rounding.

**Table 18. Number and rate of generic substances for the 20 most frequently occurring generic substances in drug mentions at emergency department visits with corresponding standard errors: United States, 2000**

Generic substance	Number of occurrences in thousands <sup>1</sup>	Standard error in thousands	Number of generic substances per 100 drug mentions <sup>2</sup>	Standard error of rate
Acetaminophen . . . . .	24,358	1,331	14.0	0.3
Ibuprofen . . . . .	12,718	761	7.3	0.3
Hydrocodone . . . . .	8,113	609	4.7	0.2
Promethazine . . . . .	5,815	415	3.4	0.2
Ketorolac tromethamine . . . . .	5,001	300	2.9	0.2
Albuterol . . . . .	4,861	332	2.8	0.1
Amoxicillin . . . . .	4,669	334	2.7	0.2
Meperidine . . . . .	4,084	268	2.4	0.1
Cephalexin . . . . .	3,171	273	1.8	0.1
Diphenhydramine . . . . .	2,888	215	1.7	0.1
Oxycodone . . . . .	2,554	254	1.5	0.1
Ceftriaxone . . . . .	2,520	204	1.5	0.1
Tetanus toxoid . . . . .	2,351	168	1.4	0.1
Nitroglycerin . . . . .	2,288	210	1.3	0.1
Lidocaine . . . . .	2,206	212	1.3	0.1
Codeine . . . . .	2,192	184	1.3	0.1
Sodium chloride . . . . .	2,018	284	1.2	0.1
Aspirin . . . . .	1,933	191	1.1	0.1
Propoxyphene . . . . .	1,922	204	1.1	0.1
Prednisone . . . . .	1,897	176	1.1	0.1

<sup>1</sup>Frequency of mention combines single-ingredient agents with mentions of the agent as an ingredient in a combination drug.<sup>2</sup>Based on an estimated 173,483,000 drug mentions at emergency department visits in 2000.**Table 19. Number, percent distribution, and therapeutic classification for the 20 drugs most frequently prescribed at emergency department visits with corresponding standard errors, by entry name of drug: United States, 2000**

Entry name of drug <sup>1</sup>	Number of mentions in thousands	Standard error in thousands	Percent distribution	Standard error of percent	Therapeutic classification <sup>2</sup>
All drug mentions . . . . .	173,483	9,200	100.0	. . .	
Tylenol . . . . .	9,991	676	5.8	0.2	Nonnarcotic analgesics
Motrin . . . . .	7,715	543	4.4	0.2	NSAIDs <sup>3</sup>
Phenergan . . . . .	5,489	399	3.2	0.2	Antihistamines
Vicodin . . . . .	5,356	491	3.1	0.2	Narcotic analgesics
Toradol . . . . .	4,890	296	2.8	0.2	NSAIDs <sup>3</sup>
Demerol . . . . .	3,837	254	2.2	0.1	Narcotic analgesics
Albuterol sulfate . . . . .	3,529	280	2.0	0.1	Antiasthmatics/bronchodilators
Ibuprofen . . . . .	3,327	252	1.9	0.1	NSAIDs <sup>3</sup>
Keflex . . . . .	2,763	253	1.6	0.1	Cephalosporins
Benadryl . . . . .	2,711	203	1.6	0.1	Antihistamines
Rocephin . . . . .	2,235	198	1.3	0.1	Cephalosporins
Amoxicillin . . . . .	2,234	189	1.3	0.1	Penicillins
Percocet-5 . . . . .	2,150	233	1.2	0.1	Narcotic analgesics
Lortab . . . . .	1,922	321	1.1	0.2	Narcotic analgesics
Prednisone . . . . .	1,873	179	1.1	0.1	Adrenal corticosteroids
Darvocet-N . . . . .	1,777	190	1.0	0.1	Narcotic analgesics
Lasix . . . . .	1,717	163	1.0	0.1	Diuretics
Morphine . . . . .	1,692	148	1.0	0.1	Narcotic analgesics
Oxygen . . . . .	1,673	248	1.0	0.1	Anesthetics
Compazine . . . . .	1,553	149	0.9	0.1	Antiemetics
All other mentions . . . . .	105,049	5,999	60.6	0.6	. . .

. . . Category not applicable.

<sup>1</sup>The entry made by hospital staff on the prescription or other medical records. This may be a trade name, generic name, or desired therapeutic effect.<sup>2</sup>Therapeutic classification is based on the *National Drug Code Directory*, 1995 Edition (17). In cases where a drug had more than one therapeutic use, it was classified under its primary therapeutic use.<sup>3</sup>NSAIDs are nonsteroidal anti-inflammatory drugs.

NOTE: Numbers may not add to totals because of rounding.

**Table 20. Number and percent of emergency department visits with corresponding standard errors, by provider seen: United States, 2000**

Type of provider	Number of visits in thousands <sup>1</sup>	Standard error in thousands	Percent of visits	Standard error of percent
All visits . . . . .	108,017	4,529	...	...
Any physician . . . . .	100,606	4,275	93.1	0.7
Staff physician . . . . .	90,950	4,088	84.2	1.4
Other physician . . . . .	10,444	1,332	9.7	1.2
Resident/intern . . . . .	9,911	1,206	9.2	1.1
R.N. <sup>2</sup> . . . . .	89,866	4,446	83.2	2.1
E.M.T. <sup>3</sup> . . . . .	7,483	1,243	6.9	1.1
Medical/nursing assistant . . . . .	7,132	1,488	6.6	1.4
Physician assistant . . . . .	5,637	871	5.2	0.7
L.P.N. <sup>4</sup> . . . . .	5,009	829	4.6	0.8
Nurse practitioner . . . . .	1,855	476	1.7	0.4
Other . . . . .	8,877	1,248	8.2	1.1
Blank . . . . .	1,553	264	1.4	0.2

... Category not applicable.

<sup>1</sup>Total exceeds "All visits" because more than one provider may be reported per visit.

<sup>2</sup>R.N. is registered nurse.

<sup>3</sup>E.M.T. is emergency medical technician.

<sup>4</sup>L.P.N. is licensed practical nurse.

**Table 21. Number and percent of emergency department visits with corresponding standard errors, by visit disposition: United States, 2000**

Disposition	Number of visits in thousands <sup>1</sup>	Standard error in thousands	Percent of visits	Standard error of percent
All visits . . . . .	108,017	4,529	...	...
Referred to other physician/clinic . . . . .	50,478	2,841	46.7	1.7
Return to ED, PRN/appointment <sup>2</sup> . . . . .	29,148	2,282	27.0	1.6
Returned to referring physician . . . . .	15,085	1,550	14.0	1.3
Admitted to hospital <sup>3</sup> . . . . .	13,364	745	12.4	0.5
No followup planned . . . . .	10,247	930	9.5	0.8
Transferred to other facility . . . . .	1,985	149	1.8	0.1
Left before being seen . . . . .	1,871	175	1.7	0.2
Admitted to ICU/CCU <sup>4</sup> . . . . .	1,691	177	1.6	0.2
DOA/died in ED <sup>5,6</sup> . . . . .	379	54	0.4	0.1
Referred to social service . . . . .	334	62	0.3	0.1
Referred out from triage without treatment . . . . .	332	68	0.3	0.1
Other . . . . .	5,444	1,149	5.0	1.0
Blank . . . . .	957	169	0.9	0.2

... Category not applicable.

<sup>1</sup>Total exceeds "All visits" because more than one disposition may be reported per visit.

<sup>2</sup>PRN is "as needed."

<sup>3</sup>Includes those admitted to ICU/CCU and is a subset of those admitted to hospital.

<sup>4</sup>ICU/CCU is intensive care unit/critical care unit or coronary care unit.

<sup>5</sup>DOA is dead on arrival.

<sup>6</sup>ED is emergency department.

## Technical notes

### Data collection

The emergency encounter data for the 2000 NHAMCS were collected from 376 responding hospitals with EDs (ED participation rate of 94 percent). There were a total of 460 emergency service areas (ESAs) sampled from 398 eligible EDs. Of these, 446 ESAs participated (97 percent ESA participation rate). The U.S. Bureau of the Census, acting as the data collection agent for the survey, provided training to field representatives (FRs) throughout the nation. FRs contacted the hospitals for induction into the survey after an advance letter was mailed from NCHS notifying the hospitals of their selection for the survey. In most cases, hospital staff completed the information requested on the Patient Record forms (figure I). However, in 52.4 percent of the hospital EDs, FRs abstracted the data from medical records or computer printouts. No personally identifying information such as patient name or address is collected. Confidentiality of the data collected in the survey is protected under the Privacy Act, Public Health Service Act, and Title 42 of the United States Code, Section 242m(d).

### Sampling errors

The standard error is primarily a measure of the sampling variability that occurs by chance when only a sample, rather than an entire universe, is surveyed. The standard error also reflects part of the measurement error, but does not measure any systematic biases in the data. The chances are 95 in 100 that an estimate from the sample differs from the value that would be obtained from a complete census by less than twice the standard error.

The standard errors presented in the tables and used in tests of significance for this report were estimated using SUDAAN software. SUDAAN computes standard errors by using a first-order Taylor approximation of the deviation of estimates from their expected values. A description of the software and the approach it uses has been published (7). The relative standard

error (RSE) of an estimate is obtained by dividing the standard error by the estimate itself. The result is then expressed as a percent of the estimate. When it is not feasible to use statistical software, such as SUDAAN, for analyzing complex survey data, one may calculate approximate RSEs for aggregate estimates by using the following general formula, where  $x$  is the aggregate of interest in thousands, and  $A$  and  $B$  are the appropriate coefficients from table I.

$$RSE(x) = \sqrt{A + \frac{B}{x}} \cdot 100$$

Similarly, RSEs for an estimate of a percent may be calculated using the following general formula, where  $p$  is the percent of interest, expressed as a proportion, and  $x$  is the denominator of the percent in thousands, using the appropriate coefficients from table I.

$$RSE(x) = \sqrt{\frac{B \cdot (1-p)}{p \cdot x}} \cdot 100$$

The standard error for a rate may be obtained by multiplying the RSE of the total estimate by the rate.

### Published and flagged estimates

Estimates are not presented unless a reasonable assumption regarding their probability distributions is possible on the basis of the Central Limit Theorem. The Central Limit Theorem states that, given a sufficiently large sample size, the sample estimate approximates the population estimate and, upon repeating sampling, its distribution would be approximately normal.

In this report, estimates are not represented if they are based on fewer than 30 cases in the sample data. In such cases, only an asterisk appears in the tables. Estimates based on 30 or more cases include an asterisk if the RSE of the estimate exceeds 30 percent.

### Estimation

Statistics from the NHAMCS are derived by a multistage estimation procedure that produces essentially unbiased estimates. The estimation procedure has three basic components:

- Inflation by reciprocals of the sampling selection probabilities
- Adjustment for nonresponse
- A population weighting ratio adjustment

NHAMCS data were adjusted to account for two types of nonresponse. The first type of nonresponse occurred when a sample hospital refused to provide information about its ED that was publicly known to exist. In this case, the weights of visits to hospitals similar to the nonrespondent hospitals were inflated to account for visits represented by the nonrespondent hospitals. Beginning with 1998 data, hospitals were judged to be similar if they were in the same region and, except in the West, if they had the same MSA status (in an MSA versus not in an MSA). Similarity of hospitals also required being in the same ownership control group (voluntary nonprofit versus other). This adjustment was made separately by department type.

The second type of nonresponse occurred when a sample ESA within a respondent hospital failed to provide completed Patient Record forms for a sample of patient visits. The weights of visits from responding ESAs were inflated to account for visits to similar nonresponding ESAs where ESAs were judged to be similar if they were in the same region. Except in the West, ESA similarity also required having the same MSA status and, in MSAs being in the same ownership control group (voluntary nonprofit versus other).

### Nonsampling errors

As in any survey, results are subject to sampling and nonsampling errors. Nonsampling errors include reporting and processing errors, as well as biases due to nonresponse and incomplete response. The magnitude of the nonsampling errors cannot be computed. However, these errors were kept to a minimum by procedures built into the operation of the survey. To eliminate ambiguities and encourage uniform reporting, attention was given to the phrasing of questions, terms, and definitions. Also, pretesting of most data items and survey procedures was



<b>Assurance of confidentiality</b> – All information which would permit identification of an individual, a practice, or an establishment will be held confidential, will be used only by persons engaged in and for the purpose of the survey and will not be disclosed or released to other persons or used for any other purpose without consent of the individual or the establishment in accordance with section 308(d) of the Public Health Service Act (42 USC 242m).		U.S. Department of Health and Human Services Centers for Disease Control and Prevention National Center for Health Statistics		OMB No. 0920-0278 Expires: 05/31/2001 CDC 64.136	
NATIONAL HOSPITAL AMBULATORY MEDICAL CARE SURVEY 1999–2000 EMERGENCY DEPARTMENT RECORD					
<b>1. PATIENT'S ZIP CODE</b> _____	<b>4. DATE OF BIRTH</b> Month: _____ Day: _____ Year: _____ <b>5. MODE OF ARRIVAL</b> – Mark (X) one. 1 <input type="checkbox"/> Ambulance (air/ground)    3 <input type="checkbox"/> Walk-in 2 <input type="checkbox"/> Public service (nonambulance, e.g., police, social services)    4 <input type="checkbox"/> Unknown	<b>7. ETHNICITY</b> 1 <input type="checkbox"/> Hispanic or Latino 2 <input type="checkbox"/> Not Hispanic or Latino	<b>9. PRIMARY EXPECTED SOURCE OF PAYMENT FOR THIS VISIT</b> Mark (X) one. 1 <input type="checkbox"/> Private insurance 2 <input type="checkbox"/> Medicare 3 <input type="checkbox"/> Medicaid 4 <input type="checkbox"/> Worker's Compensation 5 <input type="checkbox"/> Self-pay 6 <input type="checkbox"/> No charge 7 <input type="checkbox"/> Other 8 <input type="checkbox"/> Unknown	<b>10. DOES PATIENT BELONG TO AN HMO?</b> 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No 3 <input type="checkbox"/> Unknown	<b>11. IMMEDIACY WITH WHICH PATIENT SHOULD BE SEEN</b> 1 <input type="checkbox"/> Unknown/no triage 2 <input type="checkbox"/> Less than 15 minutes 3 <input type="checkbox"/> 15 – 60 minutes 4 <input type="checkbox"/> > 1 hour – 2 hours 5 <input type="checkbox"/> > 2 hours – 24 hours
<b>2. DATE OF VISIT</b> Month: _____ Day: _____ Year: _____ <b>3. TIME OF VISIT</b> _____ : _____ <input type="checkbox"/> Military <input type="checkbox"/> AM <input type="checkbox"/> PM	<b>6. SEX</b> 1 <input type="checkbox"/> Female – <b>Is patient pregnant?</b> 1 <input type="checkbox"/> Yes    2 <input type="checkbox"/> No    3 <input type="checkbox"/> Unknown 2 <input type="checkbox"/> Male	<b>8. RACE</b> Mark (X) one or more 1 <input type="checkbox"/> White 2 <input type="checkbox"/> Black/African American 3 <input type="checkbox"/> Asian 4 <input type="checkbox"/> Native Hawaiian/Other Pacific Islander 5 <input type="checkbox"/> American Indian/Alaska Native	<b>12. PRESENTING LEVEL OF PAIN</b> 1 <input type="checkbox"/> Unknown 2 <input type="checkbox"/> None 3 <input type="checkbox"/> Mild 4 <input type="checkbox"/> Moderate 5 <input type="checkbox"/> Severe	<b>13. TIME SEEN BY PHYSICIAN</b> _____ : _____ <input type="checkbox"/> Military <input type="checkbox"/> AM <input type="checkbox"/> PM <input type="checkbox"/> Not seen by physician or unknown	
<b>14. PATIENT'S COMPLAINT(S), SYMPTOM(S), OR OTHER REASON(S) FOR THIS VISIT</b> Use patient's own words 1. Most important: _____ _____ 2. Other: _____ _____ 3. Other: _____ _____		<b>15. IS THIS VISIT RELATED TO INJURY OR POISONING?</b> Refers to all types of injury or poisoning, including adverse drug experiences, medical misadventures, etc. 1 <input type="checkbox"/> Yes (Answer a, b, c, and d.)    2 <input type="checkbox"/> No (Skip to item 16.) <b>a. Place of occurrence</b> – Mark (X) one. 1 <input type="checkbox"/> Residence    5 <input type="checkbox"/> Other public building 2 <input type="checkbox"/> Recreation/sports area    6 <input type="checkbox"/> Industrial places 3 <input type="checkbox"/> Street or highway    7 <input type="checkbox"/> Other 4 <input type="checkbox"/> School    8 <input type="checkbox"/> Unknown <b>c. Is this injury work related?</b> 1 <input type="checkbox"/> Yes    2 <input type="checkbox"/> No    3 <input type="checkbox"/> Unknown <b>d. Cause of injury</b> Describe events that preceded injury (e.g. reaction to penicillin, wasp sting, driver in motor vehicle traffic accident involving collision with parked vehicle, shot with a handgun during a brawl, heroin overdose, etc.) _____ _____		<b>16. PHYSICIAN'S DIAGNOSES FOR THIS VISIT</b> As specifically as possible, list diagnoses related to this visit including chronic conditions (e.g. depression, obesity, asthma, etc.) 1. Primary diagnosis: _____ _____ 2. Other: _____ _____ 3. Other: _____ _____	
<b>17. DIAGNOSTIC/SCREENING SERVICES</b> – Mark (X) all <b>ordered</b> or <b>provided</b> at this visit. 1 <input type="checkbox"/> None 2 <input type="checkbox"/> Mental status exam    9 <input type="checkbox"/> HIV serology 3 <input type="checkbox"/> Blood pressure    10 <input type="checkbox"/> Other STD test 4 <input type="checkbox"/> EKG    11 <input type="checkbox"/> Blood alcohol concentration 5 <input type="checkbox"/> Cardiac monitor    12 <input type="checkbox"/> CBC 6 <input type="checkbox"/> Pulse oximetry    13 <input type="checkbox"/> Other blood test 7 <input type="checkbox"/> Urinalysis    14 <input type="checkbox"/> Other – Specify _____ 8 <input type="checkbox"/> Pregnancy test			<b>18. PROCEDURES</b> – Mark (X) all <b>provided</b> at this visit. 1 <input type="checkbox"/> None 2 <input type="checkbox"/> Endotracheal intubation    8 <input type="checkbox"/> Wound care 3 <input type="checkbox"/> CPR    9 <input type="checkbox"/> Eye/ENT care 4 <input type="checkbox"/> IV fluids    10 <input type="checkbox"/> Orthopedic care 5 <input type="checkbox"/> NG tube/gastric lavage    11 <input type="checkbox"/> OB/GYN care 6 <input type="checkbox"/> Lumbar puncture    12 <input type="checkbox"/> Other – Specify _____ 7 <input type="checkbox"/> Bladder catheter		
<b>19. MEDICATIONS/INJECTIONS</b> List names of up to 6 medications that were <b>ordered, supplied, administered</b> or <b>continued</b> during this visit. Include R, and OTC medications, immunizations, allergy shots, and anesthetics. <input type="checkbox"/> None 1. _____    4. _____ 2. _____    5. _____ 3. _____    6. _____		<b>20. PROVIDERS SEEN THIS VISIT</b> – Mark (X) all that apply. 1 <input type="checkbox"/> Staff physician    6 <input type="checkbox"/> R.N. 2 <input type="checkbox"/> Resident/intern    7 <input type="checkbox"/> L.P.N. 3 <input type="checkbox"/> Other physician    8 <input type="checkbox"/> Medical/nursing assistant 4 <input type="checkbox"/> Physician assistant    9 <input type="checkbox"/> E.M.T. 5 <input type="checkbox"/> Nurse practitioner    10 <input type="checkbox"/> Other		<b>21. VISIT DISPOSITION</b> – Mark (X) all that apply. 1 <input type="checkbox"/> No followup planned    10 <input type="checkbox"/> DOA/died in ED 2 <input type="checkbox"/> Return to ED, P.R.N./appointment    11 <input type="checkbox"/> Referred to social service 3 <input type="checkbox"/> Returned to referring physician    12 <input type="checkbox"/> Other – Specify _____ 4 <input type="checkbox"/> Referred out from triage without treatment 5 <input type="checkbox"/> Referred to other physician/clinic for followup 6 <input type="checkbox"/> Left before being seen 7 <input type="checkbox"/> Admitted to hospital 8 <input type="checkbox"/> Admitted to ICU/CCU 9 <input type="checkbox"/> Transferred to other facility	

Figure I. Patient Record form



**Table 1. Coefficients appropriate for determining approximate relative standard errors by type of estimate: National Hospital Ambulatory Medical Care Survey, 2000: emergency departments**

Type of estimate	Coefficient for use with estimates in thousands		Lowest reliable estimate in thousands
	A	B	
Visits . . . . .	0.002363	7.258	83
Drug mentions . . . . .	0.003780	17.835	207

performed. Quality control procedures and consistency and edit checks reduced errors in data coding and processing. Coding error rates ranged from 0.0 to 1.9 percent for various data items.

*Adjustments for item nonresponse*—Item nonresponse rates in the NHAMCS are generally low (5 percent or less). However, levels of nonresponse can vary considerably in the survey. One item (level of pain) had a nonresponse rate above 50 percent. Most nonresponse occurs when the needed information is not available in the medical record and/or is unknown to the person filling out the survey instrument. Nonresponse can also result when the information is available, but survey procedures are not followed and the item is left blank. In this report, the tables include a combined entry of unknown/blank to display missing data. For items where combined item nonresponse is between 30–50 percent, the percent distributions are not discussed in the text. However, the information is shown in the tables. These data should be interpreted with caution. If nonresponse is random, the observed distribution for the reported item (i.e., excluding cases for which the information is unknown) would be close to the true distribution. However, if nonresponse is not random, the observed distribution could vary significantly from the actual distribution. Researchers must decide how best to treat items with high levels of missing responses. For items with nonresponse greater than 50 percent, data are not presented.

Weighted item nonresponse rates were 5.0 percent or less for data items with the following exceptions: mode of arrival (6.3 percent); pregnancy status of patient (48.2 percent of visits for women 15–44 years of age), ethnicity (17.7 percent), HMO status of patient (33.3 percent), presenting level of pain (50.9

percent), place of occurrence of injury (37.1 percent of injury visits), intentionality of injury (13.2 percent of injury visits), work-related status of injury (29.9 percent of injury visits), and cause of injury (14.6 percent of injury visits).

For some items, missing values were imputed by randomly assigning a value from Patient Record forms with similar characteristics. For the variable “immediacy with which patient should be seen” (1.7 percent with missing values, i.e., none of the categories were checked), the grouping was based on ED size, geographic region, and three-digit ICD–9–CM code for primary diagnosis. The other imputed items were birth year (1.6 percent), sex (1.7 percent) and race (13.0 percent). Imputation for these items was based on ED volume, geographic region, immediacy with which patient should be seen, and three-digit ICD–9–CM code for principal diagnosis. This represents a change from previous survey years when imputations were also performed for the following variables—ethnicity, disposition, and providers seen. Beginning in 1997, these latter items were no longer imputed. Blank or otherwise missing responses are so noted in the data.

**Tests of significance and rounding**

In this report, the determination of statistical inference is based on the two-tailed *t*-test. The Bonferroni inequality was used to establish the critical value for statistically significant differences (0.05 level of significance) based on the number of possible comparisons within a particular variable (or combination of variables) of interest. Terms relating to differences such as “greater than” or “less than” indicate

that the difference is statistically significant. A lack of comment regarding the difference between any two estimates does not mean that the difference was tested and found to be not significant.

In the tables, estimates of ED visits have been rounded to the nearest thousand. Consequently, estimates will not always add to totals. Rates and percents were calculated from original unrounded figures and do not necessarily agree with figures calculated from rounded data.

**Race**

In 1999 and 2000, the instruction for the race item on the Patient Record form was changed so that more than one race could be recorded. In previous years, only one racial category could be checked. The estimates for the racial groups presented in this report are for visits where only one race was recorded. The estimate for visits where multiple races were checked was unreliable, and therefore, not presented in this report. Note that the race denominators for the population rates are based on single race response categories from the U.S. Census Bureau.

**Calculation of time waiting to see a physician**

The NHAMCS collects data on the time the patient arrived at the ED and the time that the patient was seen by a physician. These two items were used to derive the amount of time spent waiting to see a physician. Waiting times longer than 12 hours were altered to assume that the A.M./P.M. checkbox was completed incorrectly and that the patient did not actually wait that long. For visits where a physician was seen, 2.7 percent were missing the data needed to calculate waiting time.

**Injury groupings**

Table 11 presents data on the intent and mechanism producing the injuries that resulted in visits to EDs. Cause of injury is collected for each sampled injury visit in the NHAMCS and is coded according to the ICD–9–CM’s “Supplementary Classification of

External Causes of Injury and Poisoning.” However, for [table 11](#), the first-listed cause-of-injury data were regrouped to highlight the interaction between intentionality of the injury and the mechanism that produced the injury. [Table II](#) shows the E-code groupings used to produce this table. For [table 13](#), the Barell Injury Diagnosis Matrix: Classification by Region of Body and Nature of Injury was used to show the distribution of injury-related visits by body site of primary diagnosis (15). [Table III](#) shows the ICD-9-CM groupings used to produce this table.

### Population figures and rate calculation

The figures represent U.S. Census Bureau monthly postcensal estimates of the civilian noninstitutional population of the United States as of July 1, 2000. Figures are consistent with the

downloadable series, *U.S. Population Estimates by Age, Sex, Race, and Hispanic Origin: 1980–1999* (with short-term projection to dates in 2000). It is available at the Census Bureau Internet site: [http://eire.census.gov/popest/archives/national/nat\\_90s\\_detail/nat\\_90s\\_4.php](http://eire.census.gov/popest/archives/national/nat_90s_detail/nat_90s_4.php). Figures have been adjusted for net underenumeration using the 1990 National Population Adjustment Matrix. Regional estimates were provided by the Division of Health Interview Statistics (DHIS), NCHS, and are based on Census Bureau estimates of the civilian noninstitutional population as of July 1, 2000. DHIS estimates differ slightly from monthly postcensal estimates because of differences in the adjustment process.

### Definition of terms

*Drug mention*—A drug mention is the health care provider’s entry on the

Patient Record form of a pharmaceutical agent—by any route of administration—for prevention, diagnosis, or treatment. Generic as well as brand-name drugs are included, as are nonprescription and prescription drugs. Along with all new drugs, the physician also records continued medications if the patient was specifically instructed during the visit to continue the medication. Health care providers may report up to six medications per visit.

*Drug visit*—A drug visit is a visit at which medication was prescribed or provided by the physician.

*Emergency department*—An emergency department (ED) is a hospital facility for the provision of unscheduled outpatient services to patients whose conditions require immediate care and is staffed 24 hours a day. If an ED provided emergency services in different areas of the hospital, then all of these emergency

**Table II. Reclassification of cause of injury codes for use with National Hospital Ambulatory Medical Care Survey data**

Intent and mechanism of injury	Cause of injury code <sup>1</sup>
Unintentional injuries . . . . .	E800–E869, E880–E929
Falls . . . . .	E880.0–E886.9, E888
Motor vehicle traffic . . . . .	E810–E819
Striking against or struck accidentally by objects or persons . . . . .	E916–E917
Overexertion and strenuous movements . . . . .	E927
Cutting or piercing instruments or objects . . . . .	E920
Natural and environmental factors . . . . .	E900–E909, E928.0–E928.2
Poisoning by drugs, medicinal substances, biologicals, other solid and liquid substances, gases, and vapors . . . . .	E850–E869
Fire and flames, hot substance or object caustic or corrosive material, and steam . . . . .	E890–E899, E924
Machinery . . . . .	E919
Pedal cycle, nontraffic and other . . . . .	E800–E807(.3), E820–E825(.6), E826.1, E826.9
Motor vehicle, nontraffic . . . . .	E820–E825(.0–.5, .7–.9)
Other transportation . . . . .	E800–E807(.0–.2, .8–.9), E826(.0, .2–.8), E827–E829, E831, E833–E845
Suffocation . . . . .	E911–E913
Firearm missile . . . . .	E922
Drowning/submersion . . . . .	E830, E832, E910
Other and not elsewhere classified . . . . .	E846–E848, E914–E915, E918, E921, E923, E925–E926, E928.8, E929.0–E929.5
Mechanism unspecified . . . . .	E887, E928.9, E929.8, E929.9
Intentional injuries . . . . .	E950–E959, E960–E969, E970–E978, E990–E999
Assault . . . . .	E960–E969
Unarmed fight or brawl, striking by blunt or thrown object . . . . .	E960.0, E968.2
Cutting or piercing instrument . . . . .	E966
Firearms . . . . .	E965.0–E965.4
Other and unspecified mechanism . . . . .	E960.1, E962–E964, E965.5–E965.9, E967–E968.1, E968.3–E969
Self-inflicted . . . . .	E950–E959
Poisoning by solid or liquid substances, gases, and vapors . . . . .	E950–E952
Cutting and piercing instrument . . . . .	E956
Suffocation . . . . .	E953
Other and unspecified mechanism . . . . .	E954–E955, E957–E959
Other causes of violence . . . . .	E970–E978, E990–E999
Injuries of undetermined intent . . . . .	E980–E989
Adverse effects of medical treatment . . . . .	E870–E879, E930–E949

<sup>1</sup> Based on the “Supplementary Classification of External Causes of Injury and Poisoning,” *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD-9-CM) (13).

**Table III. Reclassification of body site of primary diagnosis codes for use with the National Hospital Ambulatory Medical Care Survey data**

Body site	ICD-9-CM codes
<b>Head and neck</b>	
Traumatic brain injury . . . . .	800.1–800.4, 800.6–800.9, 800.03–800.05, 800.53–800.55, 801.1–801.4, 801.6–801.9, 801.03–801.05, 801.53–801.55, 803.1–803.4, 803.6–803.9, 803.03–803.05, 803.53–803.55, 804.1–804.4, 804.6–804.9, 804.03–804.05, 804.53–804.55, 850.2–850.4, 851–853, 854.03–854.05, 854.1, 950.1–950.3, 800.00–800.02, 800.06, 800.09, 801.00–801.02, 801.06, 801.09, 803.00–803.02, 803.06, 803.09, 804.00–804.02, 804.06, 804.09, 800.50–800.52, 800.56, 800.59, 801.50–801.52, 801.56, 801.59, 803.50–803.52, 803.56, 803.59, 804.50–804.52, 804.56, 804.59, 850.0, 850.1, 850.5, 850.9, 854.00–854.02, 854.06, or 854.09
Other head . . . . .	951, 873.0, 873.1, 873.8, 873.9, 941.6, or 959.01
Face . . . . .	802, 830, 848.0–848.1, 872, 873.2–873.7, 941.1, 941.3–941.5, or 941.7
Eye . . . . .	950.0, 950.9, 870–871, 921, 918, 940, or 941.2
Head, face, neck unspecified . . . . .	807.5–807.6, 848.2, 925.2, 953.0, 954.0, 874, 941.8, 925.1, 900, 957.0, 910, 920, 947.0, 959.09, 941.0, or 941.9
<b>Spinal cord</b>	
Spinal cord . . . . .	806.0–806.1, 952.0, 806.2–806.3, 952.1, 806.4–806.5, 952.2, 806.6–806.7, 952.3–952.4, 806.8–806.9, or 952.8–952.9
<b>Vertebral column</b>	
Cervical . . . . .	805.0–805.1, 839.0–8391, or 847.0
Lumbar . . . . .	805.4–805.5, 839.20, 839.30, or 847.2
Thoracic/dorsal. . . . .	805.2–805.3, 839.21, 839.31, or 847.1
Other vertebral column. . . . .	805.6–805.7, 839.41, 839.42, 839.51–839.52, 847.3–847.4, 805.8–805.9, 839.40, 839.49, 839.50, or 839.59
<b>Torso</b>	
Chest . . . . .	807.0–807.4, 839.61, 839.71, 848.3–848.4, 926.19, 860–862, 901, 953.1, 875, 879.0, 879.1, 922.0, 922.1, 922.33, or 942.1–942.2
Abdomen . . . . .	863–866, 868, 902.0–902.4, 953.2, 953.5, 879.2–879.5, 922.2, 942.3, or 947.3
Pelvis and urogenital . . . . .	808, 839.69, 839.79, 846, 848.5, 926.0, 926.12, 867, 902.5, 902.81–902.82, 953.3, 877–878, 922.4, 942.5, or 947.4
Trunk. . . . .	809, 926.8–926.9, 954.1, 954.8–954.9, 879.6–879.7, 922.8–922.9, 911, 942.0, 942.9, or 959.1
Back and buttocks. . . . .	847.9, 926.11, 876, 922.32, 922.31, or 942.4
<b>Upper Extremity</b>	
Shoulder and upper arm. . . . .	810–812, 831, 840, 880, 887.2–887.3, 943.3–943.6, 912, 923.0, 927.0, or 959.2
Forearm and elbow . . . . .	813, 832, 841, 881.0–881.1, 887.0–887.1, 923.1, 927.1, or 943.1–943.2
Hand, wrist and fingers. . . . .	814–817, 833–834, 842, 881.2, 882–883, 885–886, 914–915, 923.2–923.3, 927.2–927.3, 944, or 959.4–959.5
Other and unspecified upper extremity . . . . .	818, 884, 887.4–887.7, 903, 913, 959.3, 923.8–923.9, 927.8–927.9, 953.4, 955, 943.0, or 943.9
<b>Lower Extremity</b>	
Hip . . . . .	820, 835, 843, 924.01, 928.01
Upper leg and thigh. . . . .	821, 897.2–897.3, 924.00, 928.00, or 945.6
Knee . . . . .	822, 836, 844.0–844.3, 924.11, 928.11, or 945.5
Lower leg and ankle . . . . .	823–824, 897.0–897.1, 837, 845.0, 924.10, 924.21, 928.10, 928.21, or 945.3–945.4
Foot and toes . . . . .	825–826, 838, 845.1, 892–893, 895–896, 917, 924.20, 924.3, 928.20, 928.3, or 945.1–945.2
Other and unspecified lower extremity . . . . .	827, 844.8–844.9, 890–891, 894, 897.4–897.7, 904.0–904.8, 916, 924.4–924.5, 928.8, 928.9, 959.6–959.7, 945.0, or 945.9
System-wide . . . . .	930–939, 960–979, 980–989, 990–995, 905–909, 958, 995.5, 995.80–995.85, 995.0–995.4, 995.6, 995.86, 995.89, 996–999
Other and unspecified body site injuries. . . . .	828, 819, 902.87, 902.89, 953.8, 947.1–947.2, 956, 829, 839.8–839.9, 848.8–848.9, 869, 879.8–879.9, 902.9, 904.9, 919, 924.8–924.9, 929, 946, 947.8–947.9, 948–949, 953.9, 957.1, 957.8–957.9 or 959.8–959.9
Adverse effects and medical complications . . . . .	909.3–909.5, 995.0–995.4, 995.6, 995.86–995.89, 996–999

service areas (ESAs) are selected with certainty into the sample. Off-site EDs that are open less than 24 hours are included if staffed by the hospital's ED.

*Emergent visit*—An emergent visit is one at which the triage practitioner determines that the patient should receive care immediately to combat danger to life or limb and where any

delay would likely result in deterioration. If the visit was determined to be emergent, “less than 15 minutes” was to be checked in item 11, “Immediacy with which patient should be seen” on the Patient Record form.

*Hospital*—To be in-scope for the NHAMCS, a hospital must have an

average length of stay for all patients of less than 30 days (short-stay) or be a hospital whose specialty is general (medical or surgical) or children's general, except Federal hospitals, hospital units of institutions, and hospitals with less than six beds staffed for patient use.

*Illness-related visit*—A visit is considered illness related if it was not an injury visit as in the definition for injury-related visit.

*Injury-related visit*—A visit is injury-related if "yes" was checked in response to item 15, "Is visit related to injury or poisoning?" or if a cause of injury or a nature of injury diagnosis disposition of visit. Blank or otherwise missing responses are so noted in the data.

*Outpatient department*—An outpatient department is a hospital facility where nonurgent ambulatory medical care is provided under the supervision of a physician.

*Ownership*—Hospitals are designated according to the primary owner of the hospital based on the SMG Hospital Database.

*Voluntary nonprofit*—Hospitals that are church related or are a nonprofit corporation or have other nonprofit ownership.

*Government, non-Federal*—Hospitals that are operated by State, county, city, city-county, or hospital district or authority.

*Proprietary*—Hospitals that are individually or privately owned or are partnerships or corporations.

*Patient*—A patient is an individual seeking personal health services who is not currently admitted to any health care institution on the premises. Patients arriving by ambulance are included.

*Visit*—A visit is a direct, personal exchange between an ambulatory patient seeking care and a physician or other hospital staff member working under the physician's supervision to render personal health services. Excluded from the NHAMCS are visits where medical care was not provided, such as visits made to drop off specimens, pay bills, and make appointments.

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