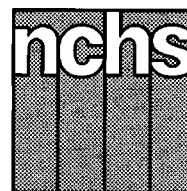


Advance Data



From Vital and Health Statistics of the CENTERS FOR DISEASE CONTROL AND PREVENTION/National Center for Health Statistics

National Hospital Ambulatory Medical Care Survey: 1992 Emergency Department Summary

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In December 1991, the National Center for Health Statistics inaugurated the National Hospital Ambulatory Medical Care Survey (NHAMCS) to gather and disseminate information about the health care provided by hospital emergency and outpatient departments to the population of the United States. Ambulatory medical care is the predominant method of providing health care services in the United States. Since 1973, data have been collected on patient visits to physicians' offices through the National Ambulatory Medical Care Survey (NAMCS). However, visits to hospital emergency and outpatient departments, which represent a significant segment of total ambulatory medical care, are not included in the NAMCS (1). Furthermore, hospital ambulatory patients are known to differ from office patients in their demographic characteristics and are also thought to differ in medical aspects (2). Therefore, the omission of hospital ambulatory care from the ambulatory medical care database leaves a significant gap in coverage and limits the utility of the current NAMCS data. The NHAMCS fills this data gap. This survey was endorsed by the American Hospital Association, the Emergency Nurses

Association, and the American College of Emergency Physicians.

This report presents data on emergency department (ED) visits from the 1992 NHAMCS, a national probability survey conducted by the Division of Health Care Statistics, National Center for Health Statistics, Centers for Disease Control and Prevention. A forthcoming report will provide data on visits to outpatient departments.

The estimates presented in this report are based on a sample rather than on the entire universe of hospital ED visits. Therefore, they are subject to sampling variability. The technical notes include a brief overview of the sample design used in the 1992 NHAMCS and an explanation of sampling errors. A detailed description of the 1992 NHAMCS sample design and survey methodology will be published.

The ED Patient Record form is used by hospitals participating in the NHAMCS to record information about patient visits. This form (figure 1) serves as a reference for readers as they review the survey findings presented in this document.

Patient characteristics

During the 12-month period from January–December 1992, an estimated

89.8 million visits were made to ED's of non-Federal, short-stay, or general hospitals in the United States—about 35.7 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 (55.8 visits per 100 persons) than persons in the five other age categories. Females made 51.9 percent of all ED visits. There was no significant difference in total visit rates by sex.

White persons made 78.5 percent of all ED visits, with black persons and Asian/Pacific Islanders accounting for 19.1 percent and 1.6 percent, respectively. The visit rate for black persons was significantly higher than for white persons overall and in the following age categories: 15–24 years, 25–44 years, and 45–64 years.

Emergency department visit characteristics

The largest proportion of ED visits were made in the South (32.9 percent); the Midwest had a higher ED visit rate (42.0 visits per 100 persons) than the West (31.5 visits per 100 persons) (table 1).

Urgency of visit

The majority (55.4 percent) of ED visits were not urgent and 44.6 percent



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**NATIONAL HOSPITAL AMBULATORY
MEDICAL CARE SURVEY
EMERGENCY DEPARTMENT
PATIENT RECORD**

3. DATE OF VISIT _____ / _____ / _____ Month Day Year	5. SEX 1 <input type="checkbox"/> Female 2 <input type="checkbox"/> Male	6. RACE 1 <input type="checkbox"/> White 2 <input type="checkbox"/> Black 3 <input type="checkbox"/> Asian/Pacific Islander 4 <input type="checkbox"/> American Indian/Eskimo/Aleut	7. ETHNICITY 1 <input type="checkbox"/> Hispanic 2 <input type="checkbox"/> Not Hispanic	8. EXPECTED SOURCE(S) OF PAYMENT <i>(Check all that apply)</i> 1 <input type="checkbox"/> Medicare 2 <input type="checkbox"/> Medicaid 3 <input type="checkbox"/> Other government 4 <input type="checkbox"/> Private/Commercial 5 <input type="checkbox"/> HMO/Other prepaid 6 <input type="checkbox"/> Patient paid 7 <input type="checkbox"/> No charge 8 <input type="checkbox"/> Other	9. MAJOR REASON FOR THIS VISIT <i>(Check one)</i> 1 <input type="checkbox"/> Injury, first visit 2 <input type="checkbox"/> Injury, follow-up 3 <input type="checkbox"/> Illness, first visit 4 <input type="checkbox"/> Illness, follow-up 5 <input type="checkbox"/> Other reason	
4. DATE OF BIRTH _____ / _____ / _____ Month Day Year	10. CAUSE OF INJURY <i>(Complete if injury is marked in 9. Describe cause and place of injury.)</i> _____ _____ _____		11. PATIENT'S COMPLAINT(S), SYMPTOM(S), OR OTHER REASON(S) FOR THIS VISIT <i>(In patient's own words)</i> a. Most important: _____ b. Other: _____ c. Other: _____		12. PHYSICIAN'S DIAGNOSES a. Principal diagnosis/problem associated with item 11a. _____ b. Other: _____ c. Other: _____	
13. URGENCY OF THIS VISIT <i>(Check only one)</i> 1 <input type="checkbox"/> Urgent/Emergent 2 <input type="checkbox"/> Non-urgent	14. IS PROBLEM ALCOHOL-OR DRUG-RELATED? 1 <input type="checkbox"/> Neither 2 <input type="checkbox"/> Alcohol-related 3 <input type="checkbox"/> Drug-related 4 <input type="checkbox"/> Both		15. DIAGNOSTIC/SCREENING SERVICES <i>(Check all ordered or provided.)</i> 1 <input type="checkbox"/> None 2 <input type="checkbox"/> Blood pressure check 3 <input type="checkbox"/> Urinalysis 4 <input type="checkbox"/> HIV serology 5 <input type="checkbox"/> Other blood test 6 <input type="checkbox"/> EKG 7 <input type="checkbox"/> Mental status exam 7 <input type="checkbox"/> Chest x-ray 9 <input type="checkbox"/> Extremity x-ray 10 <input type="checkbox"/> CT scan/MRI 11 <input type="checkbox"/> Other diagnostic imaging 12 <input type="checkbox"/> Other (Specify) _____ _____ _____		16. PROCEDURES <i>(Check all provided on this visit)</i> 1 <input type="checkbox"/> None 2 <input type="checkbox"/> Endotracheal intubation 3 <input type="checkbox"/> CPR 4 <input type="checkbox"/> IV fluids 5 <input type="checkbox"/> NG tube/gastric lavage 11 <input type="checkbox"/> Other(s) (Specify) _____ 6 <input type="checkbox"/> Wound care 7 <input type="checkbox"/> Eye/ENT care 8 <input type="checkbox"/> Orthopedic care 9 <input type="checkbox"/> Bladder catheter 10 <input type="checkbox"/> Lumbar puncture	
17. MEDICATION <i>(Record all new or continued medication ordered, administered, or provided at this visit. Use the same brand name or generic name entered on any Rx or medical record. Include immunizations and desensitizing agents.)</i> <input type="checkbox"/> None 1. _____ 2. _____ 3. _____ 4. _____ 5. _____			18. DISPOSITION THIS VISIT <i>(Check all that apply)</i> 1 <input type="checkbox"/> Return to ED PRN 2 <input type="checkbox"/> Return to ED - appointment 3 <input type="checkbox"/> Return to referring physician 4 <input type="checkbox"/> Refer to other physician/clinic 5 <input type="checkbox"/> Admit to hospital 6 <input type="checkbox"/> Transfer to other facility 7 <input type="checkbox"/> DOA/died in ED 8 <input type="checkbox"/> Left AMA 9 <input type="checkbox"/> No follow-up planned 10 <input type="checkbox"/> Other (Specify) _____		19. PROVIDERS SEEN THIS VISIT <i>(Check all that apply)</i> 1 <input type="checkbox"/> Resident/Intern 2 <input type="checkbox"/> Staff physician 3 <input type="checkbox"/> Other physician 4 <input type="checkbox"/> Physician assistant 5 <input type="checkbox"/> Nurse practitioner 6 <input type="checkbox"/> Registered nurse 7 <input type="checkbox"/> Licensed practical nurse 8 <input type="checkbox"/> Nurse's aide	

Figure 1. Patient Record form.

Table 1. Number, percent distribution, and annual rate of emergency department visits with corresponding standard errors by selected patient and emergency department characteristics: United States, 1992

<i>Characteristic</i>	<i>Number of visits in thousands</i>	<i>Standard error in thousands</i>	<i>Percent distribution</i>	<i>Standard error of percent</i>	<i>Number of visits per 100 persons per year¹</i>
All visits	89,796	3,202	100.0	...	35.7
Patient characteristic					
Age:					
Under 15 years	22,523	1,485	25.1	1.3	39.9
15–24 years	14,848	702	16.5	0.4	43.2
25–44 years	27,240	1,097	30.3	0.7	33.5
45–64 years	12,509	528	13.9	0.4	25.8
65–74 years	5,806	267	6.5	0.2	31.4
75 years and over	6,871	313	7.7	0.3	55.8
Sex and age:					
Female					
Under 15 years	10,196	640	11.4	0.6	37.0
15–24 years	8,051	421	9.0	0.3	46.6
25–44 years	14,045	615	15.6	0.4	34.0
45–64 years	6,629	302	7.4	0.3	26.3
65–74 years	3,350	175	3.7	0.2	32.9
75 years and over	4,342	216	4.8	0.2	56.4
Male					
Under 15 years	12,327	878	13.7	0.8	42.7
15–24 years	6,797	336	7.6	0.2	39.8
25–44 years	13,195	560	14.7	0.4	33.0
45–64 years	5,880	279	6.5	0.2	25.2
65–74 years	2,456	121	2.7	0.1	29.7
75 years and over	2,529	148	2.8	0.1	54.8
Race and age:					
White					
Under 15 years	16,878	1,028	18.8	0.8	37.5
15–24 years	11,598	628	12.9	0.4	42.2
25–44 years	20,579	945	22.9	0.6	30.4
45–64 years	10,134	477	11.3	0.4	24.3
65–74 years	5,017	252	5.6	0.2	30.7
75 years and over	6,272	299	7.0	0.3	56.2
Black					
Under 15 years	5,132	761	5.7	0.9	57.3
15–24 years	2,877	214	3.2	0.2	56.4
25–44 years	5,840	437	6.5	0.5	59.6
45–64 years	2,111	190	2.4	0.2	42.3
65–74 years	685	86	0.8	0.1	41.6
75 years and over	505	64	0.6	0.1	51.7
All other races:					
Asian/Pacific Islander	1,400	247	1.6	0.3	---
American Indian/Eskimo/Aleut	*769	315	*0.9	0.4	---
Emergency department characteristic					
Geographic region:					
Northeast	16,950	1,108	18.9	1.2	33.9
Midwest	25,790	2,051	28.7	1.9	42.0
South	29,542	1,778	32.9	1.8	35.0
West	17,515	1,546	19.5	1.6	31.5

¹Based on U.S. Bureau of the Census estimates of the civilian, noninstitutionalized population of the United States as of July 1, 1992.

were urgent/emergent (table 2). When compared with all other age categories, persons 75 years of age and over had the highest urgent visit rate (36.6 visits per 100 persons). Persons 15–24 years of age had a higher rate of nonurgent visits (26.3 visits per 100 persons) than any other age group except children less

than 15 years of age. There was no significant difference between urgent or nonurgent visit rates by sex.

Type of visit

The majority of ED visits (58.5 percent) were made for illness and 35.2 percent were made for injury

(table 3). Eighty-seven percent of all ED visits were first visits for the presenting problem.

Injury-related visits

A visit was considered to be injury related if “injury, first visit” or “injury, follow-up” was recorded in

Table 2. Number and annual rate of urgent/emergent and nonurgent emergency department visits with corresponding standard errors by patient's age, sex, and race: United States, 1992

Patient characteristic	Number of urgent visits in thousands	Standard error in thousands	Number of urgent visits per 100 persons per year ¹	Number of nonurgent visits in thousands	Standard error in thousands	Number of nonurgent visits per 100 persons per year ¹
All urgent/emergent visits	40,079	1,803	15.9	49,718	2,175	19.8
Age						
Under 15 years	8,874	1,030	15.7	13,649	756	24.2
15–24 years	5,800	353	16.9	9,048	499	26.3
25–44 years	11,080	514	13.6	16,160	818	19.9
45–64 years	6,379	321	13.2	6,131	334	12.6
65–74 years	3,434	193	18.6	2,371	164	12.8
75 years and over	4,513	236	36.6	2,358	148	19.1
Sex and age						
Female	20,338	904	15.7	26,275	1,216	20.3
Under 15 years	3,842	418	13.9	6,353	348	23.1
15–24 years	2,992	213	17.3	5,059	299	29.3
25–44 years	5,573	295	13.5	8,472	484	20.5
45–64 years	3,159	174	12.5	3,471	226	13.8
65–74 years	1,943	114	19.1	1,407	119	13.8
75 years and over	2,829	161	36.7	1,513	106	19.6
Male	19,741	945	16.2	23,443	1,067	19.2
Under 15 years	5,031	628	17.4	7,296	448	25.3
15–24 years	2,807	181	16.4	3,990	241	23.3
25–44 years	5,506	258	13.8	7,689	422	19.2
45–64 years	3,220	187	13.8	2,660	154	11.4
65–74 years	1,492	109	18.0	964	74	11.7
75 years and over	1,684	107	36.5	845	73	18.3
Race and age						
White	32,097	1,560	15.3	38,381	2,005	18.3
Under 15 years	6,629	589	14.7	10,250	664	22.8
15–24 years	4,662	325	17.0	6,936	437	25.2
25–44 years	8,473	452	12.5	12,106	692	17.9
45–64 years	5,206	300	12.5	4,928	286	11.8
65–74 years	2,997	180	18.3	2,020	160	12.3
75 years and over	4,131	222	37.0	2,141	143	19.2
Black	7,158	633	22.8	9,992	703	31.8
Under 15 years	2,087	531	23.3	3,045	330	34.0
15–24 years	1,030	99	20.2	1,847	178	36.2
25–44 years	2,271	191	23.2	3,569	307	36.4
45–64 years	1,035	109	20.7	1,076	111	21.6
65–74 years	396	56	24.1	289	40	17.6
75 years and over	339	51	34.7	166	25	17.0

¹Based on U.S. Bureau of the Census estimates of the civilian, noninstitutionalized population of the United States as of July 1, 1992.

item 9. Almost 31.6 million ED visits were made for injury (table 4). Persons 15–24 years of age had a higher injury-related visit rate (18.9 visits per 100 persons) than persons in each of the other five age categories. Males had higher injury-related visit rates (14.8 per 100 persons) than females (10.5 per 100 persons) overall and in each age category except for 65–74 years and 75 years and over, where females had higher rates. There was no significant difference between injury-related visit

rates by race. However, black people had a higher rate than white people among persons 25–44 years of age, while white people had a higher rate than black people in the 75 years and over age category.

Cause of injury

Up to three external causes of injury are coded and classified according to the *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD–9–CM) (3).

Displayed in table 5 are ED visits by the first-listed cause of injury using the major cause of injury categories specified by the ICD–9–CM. “Other accidents” was the most frequently recorded cause of injury and represented 35.8 percent of visits in which a cause was reported. Accidental falls (26.6 percent) and motor vehicle accidents (14.3 percent) were also prominent on the list.

Table 3. Number and percent distribution of emergency department visits with corresponding standard errors by major reason for this visit: United States, 1992

Visit characteristic	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent
All visits	89,796	3,202	100.0	...
Major reason for this visit				
All illness visits	52,528	2,128	58.5	0.9
Illness, first visit	49,691	2,033	55.3	0.9
Illness, follow-up	2,837	229	3.2	0.2
All injury visits	31,567	1,210	35.2	0.7
Injury, first visit	28,389	1,046	31.6	0.7
Injury, follow-up	3,178	241	3.5	0.2
All visits for other reasons	4,430	511	4.9	0.6
Unknown	1,271	168	1.4	0.2

Table 4. 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, 1992

Patient characteristic	Number of visits in thousands	Standard error in thousands	Percent distribution	Standard error of percent	Number of visits per 100 persons per year ¹
All injury-related visits	31,567	1,210	100.0	...	12.6
Age					
Under 15 years	8,162	426	25.9	0.9	14.5
15-24 years	6,489	307	20.6	0.5	18.9
25-44 years	10,500	446	33.3	0.8	12.9
45-64 years	3,681	207	11.7	0.5	7.6
65-74 years	1,305	98	4.1	0.3	7.1
75 years and over	1,430	100	4.5	0.3	11.6
Sex and age					
Female	13,540	539	42.9	0.6	10.5
Under 15 years	3,290	181	10.4	0.4	11.9
15-24 years	2,442	148	7.7	0.3	14.1
25-44 years	4,305	237	13.6	0.6	10.4
45-64 years	1,647	101	5.2	0.3	6.5
65-74 years	852	69	2.7	0.2	8.4
75 years and over	1,004	77	3.2	0.2	13.0
Male	18,027	734	57.1	0.6	14.8
Under 15 years	4,872	278	15.4	0.6	16.9
15-24 years	4,048	206	12.8	0.4	23.7
25-44 years	6,195	280	19.6	0.6	15.5
45-64 years	2,034	151	6.4	0.4	8.7
65-74 years	453	49	1.4	0.1	5.5
75 years and over	426	50	1.3	0.2	9.2
Race and age					
White	26,271	1,180	83.2	1.1	12.5
Under 15 years	6,794	372	21.5	0.7	15.1
15-24 years	5,456	293	17.3	0.5	19.9
25-44 years	8,405	418	26.6	0.7	12.4
45-64 years	3,096	197	9.8	0.5	7.4
65-74 years	1,160	93	3.7	0.3	7.1
75 years and over	1,359	101	4.3	0.3	12.2
Black	4,556	304	14.4	1.0	14.5
Under 15 years	1,214	138	3.8	0.5	13.6
15-24 years	903	82	2.9	0.3	17.7
25-44 years	1,783	151	5.6	0.5	18.2
45-64 years	490	61	1.6	0.2	9.8
65-74 years	111	23	0.4	0.1	6.8
75 years and over	54	12	0.2	0.0	5.5

¹Based on U.S. Bureau of the Census estimates of the civilian, noninstitutionalized population of the United States as of July 1, 1992.

Alcohol- or drug-related problem

Over 2.7 percent of ED visits were recorded as being alcohol related and 1.1 percent were drug related (table 6). For injury-related ED visits, the proportion of visits that were alcohol related (3.6 percent) was higher than that for noninjury-related visits (2.3 percent). The most commonly recorded principal diagnosis for an alcohol-related ED visit was alcohol abuse, and for a drug-related visit it was "poisoning by other and unspecified drugs and medicinal substances."

Reason for visit

In item 11 of the Patient Record form, the patient's (or patient surrogate's) "complaint(s), symptom(s), or other reason(s) for this visit (In patient's own words)" is recorded. Up to three reasons for visit are coded and classified according to *A Reason for Visit Classification for Ambulatory Care (RVC)* (4). The principal reason is the problem, complaint, or reason listed first in item 11a of the ED Patient Record form.

The RVC is divided into eight modules or groups of reasons as shown in table 7. More than 71.3 percent of all visits were made for reasons classified as symptoms with general symptoms accounting for 15.2 percent of all visits and symptoms referable to the musculoskeletal system accounting for 14.8 percent.

The 20 most frequently mentioned principal reasons for visit, representing 46.3 percent of all visits, are shown in table 8. It is important to note that the rank ordering presented in this and other tables may not always be reliable because near estimates may not differ from each other due to sampling variability. "Stomach and abdominal pain, cramps and spasms" was the most frequently mentioned reason for visit overall (5.5 percent), while "laceration and cuts-upper extremity" was the most frequently mentioned reason for visit in the injury module (2.6 percent).

Principal diagnosis

The principal diagnosis or problem associated with the patient's most

Table 5. Number and percent distribution of emergency department visits with corresponding standard errors by cause of injury: United States, 1992

<i>Cause of injury and E code¹</i>	<i>Number of visits in thousands</i>	<i>Standard error in thousands</i>	<i>Percent distribution</i>	<i>Standard error of percent</i>
All visits with an E code entered	28,812	1,127	100.0	...
Other accidents E916–E928	10,309	477	35.8	0.7
Accidental falls. E880–E888	7,669	348	26.6	0.8
Motor vehicle accidents, traffic and non-traffic; E810–E825	4,130	196	14.3	0.5
Homicide and injury purposely inflicted by other persons E960–E969	1,553	119	5.4	0.4
Accidents due to natural and environmental factors E900–E909	1,374	110	4.8	0.3
Accidents caused by submersion, suffocation, and foreign bodies E910–E915	1,040	84	3.6	0.3
Other road vehicle accidents E826–E829	635	71	2.2	0.2
Surgical and medical procedures as the cause of abnormal reaction of patient or later complication without mention of misadventure at the time of procedure E878–E879	404	49	1.4	0.2
Drugs, medicinal and biological substances causing adverse effects in therapeutic use E930–E949	370	52	1.3	0.2
Accidental poisoning by drugs, medicinal substances, and biologicals. E850–E858	332	50	1.2	0.2
Accidental poisoning by other solid and liquid substances, gases, and vapors. E860–E869	192	35	0.7	0.1
Suicide and self-inflicted injury E950–E959	160	38	0.6	0.1
Accidents caused by fire and flames E890–E899	127	25	0.4	0.1
Late effects of accidental injury E929	52	13	0.2	0.0
Injury undetermined whether accidentally or purposely inflicted E980–E989	39	10	0.1	0.0
Other ²	109	21	0.4	0.1
Unknown ³	315	45	1.1	0.2

¹Based on the *International Classification of Diseases, 9th Revision, Clinical Modification (ICD–9–CM)(3)*.

²Includes railway accidents (E800–E807); water transport accidents (E830–E838); air and space transport accidents (E840–E845); vehicle accidents not elsewhere classifiable (E846–E848); misadventures to patients during surgical and medical care (E870–E876); legal intervention (E970–E978); and injury resulting from operations of war (E990–E999).

³Includes uncodable E codes and illegible E codes.

important reason for visit and any other significant current diagnoses are recorded in item 12. Up to three diagnoses are coded and classified according to the ICD–9–CM (3). Displayed in table 9 are ED visits by principal diagnosis using the major disease categories specified by the ICD–9–CM. Injury and poisoning accounted for 32.7 percent of all visits, and diseases of the respiratory system accounted for 12.1 percent.

The 20 most frequently reported principal diagnoses are shown in table 10. These are categorized at the three-digit coding level of the ICD–9–CM and account for 38.4 percent of all ED visits. The most commonly recorded diagnosis was suppurative and

unspecified otitis media, occurring at 3.5 percent of all visits.

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 11. Approximately 87.9 percent of all ED visits included one or more diagnostic or screening service. The most frequently mentioned diagnostic service was blood pressure check, recorded at 73.7 percent of visits. Other frequently mentioned services included other blood test (28.7 percent), chest x ray (16.8 percent), urinalysis (15.2 percent), and extremity x ray (15.1 percent).

Readers should note that for items 8, 15, 16, 18, and 19, hospital staff were asked to check all of the applicable categories for that item, with the result that multiple responses could be coded for each visit.

Procedures

Procedures were performed at 42.3 percent of ED visits (table 12). The most frequently mentioned procedure was the administration of intravenous fluids, recorded at 14.4 percent of visits. Other frequently mentioned procedures were wound care (12.9 percent) and orthopedic care (7.9 percent).

Expected source of payment

Expected sources of payment were most often private/commercial insurance (36.0 percent), Medicaid (22.7 percent), and Medicare (15.1 percent) (table 13). “Patient paid” and “HMO/other prepaid” were mentioned at 13.8 and 7.3 percent of ED visits, respectively. The patient-paid category includes the patient’s contribution toward “co-payments” and “deductibles.”

Table 6. Number and percent distribution of alcohol- or drug-related emergency department visits with corresponding standard errors: United States, 1992

<i>Visit characteristic</i>	<i>Number of visits in thousands</i>	<i>Standard error in thousands</i>	<i>Percent distribution</i>	<i>Standard error of percent</i>
All visits	89,796	3,202	100.0	...
Alcohol- or drug-related visit				
Neither	86,015	3,026	95.8	0.2
Alcohol-related	2,459	196	2.7	0.2
Drug-related	996	91	1.1	0.1
Both	327	44	0.4	0.0

Table 7. Number and percent distribution of emergency department visits with corresponding standard errors by patient's principal reason for visit: United States, 1992

<i>Principal reason for visit and RVC code¹</i>	<i>Number of visits in thousands</i>	<i>Standard error in thousands</i>	<i>Percent distribution</i>	<i>Standard error of percent</i>
All visits	89,796	3,202	100.0	...
Symptom moduleS001-S999	64,049	2,420	71.3	0.6
General symptomsS001-S099	13,615	543	15.2	0.3
Symptoms referable to psychological/mental disordersS100-S199	1,399	131	1.6	0.1
Symptoms referable to the nervous system (excluding sense organs)S200-S259	5,350	248	6.0	0.2
Symptoms referable to the cardiovascular/lymphatic systemS260-S299	659	62	0.7	0.1
Symptoms referable to the eyes and earsS300-S399	3,426	201	3.8	0.2
Symptoms referable to the respiratory systemS400-S499	10,333	583	11.5	0.4
Symptoms referable to the digestive systemS500-S639	10,359	476	11.5	0.3
Symptoms referable to the genitourinary systemS640-S829	3,131	175	3.5	0.1
Symptoms referable to the skin, hair, and nailsS830-S899	2,453	156	2.7	0.1
Symptoms referable to the musculoskeletal systemS900-S999	13,324	580	14.8	0.4
Disease moduleD001-D999	2,828	1,668	3.1	0.2
Diagnostic, screening, and preventive moduleX100-X599	754	69	0.8	0.1
Treatment moduleT100-T899	2,364	143	2.6	0.1
Injuries and adverse effects moduleJ001-J999	18,261	773	20.3	0.6
Test results moduleR100-R700	183	33	0.2	0.0
Administrative moduleA100-A140	128	26	0.1	0.0
Other ²U990-U999	1,231	161	1.4	0.2

¹Based on *A Reason for Visit Classification for Ambulatory Care (RVC) (4)*.²Includes problems and complaints not elsewhere classified, entries of "none," blanks, and illegible entries.**Table 8. 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, 1992**

<i>Reason for visit and RVC code¹</i>	<i>Number of visits in thousands</i>	<i>Standard error in thousands</i>	<i>Percent distribution</i>	<i>Standard error of percent</i>
All visits	89,796	3,202	100.0	...
Stomach and abdominal pain, cramps and spasmsS545	4,955	246	5.5	0.2
Chest pain and related symptomsS050	4,625	250	5.2	0.2
FeverS010	3,678	271	4.1	0.3
Headache, pain in headS210	2,545	155	2.8	0.2
Laceration and cuts—upper extremityJ225	2,347	143	2.6	0.1
Shortness of breathS415	2,025	131	2.3	0.1
CoughS440	1,997	204	2.2	0.2
Back symptomsS905	1,959	116	2.2	0.1
Symptoms referable to throatS455	1,957	172	2.2	0.2
VomitingS530	1,877	169	2.1	0.2
Pain, site not referable to a specific body systemS055	1,812	120	2.0	0.1
Earache or ear infectionS355	1,614	133	1.8	0.1
Laceration and cuts - facial areaJ210	1,485	99	1.7	0.1
Hand and finger symptomsS960	1,390	101	1.5	0.1
Neck symptomsS900	1,325	88	1.5	0.1
Skin rashS860	1,305	97	1.5	0.1
Labored or difficult breathing (dyspnea)S420	1,239	95	1.4	0.1
Leg symptomsS920	1,154	82	1.3	0.1
Knee symptomsS925	1,102	85	1.2	0.1
Foot and toe symptomsS935	1,085	82	1.2	0.1
All other reasons	48,322	1,775	53.8	0.5

¹Based on *A Reason for Visit Classification for Ambulatory Care (RVC) (4)*.

Table 9. Number and percent distribution of emergency department visits with corresponding standard errors by principal diagnosis: United States, 1992

<i>Principal diagnosis and ICD-9-CM code¹</i>	<i>Number of visits in thousands</i>	<i>Standard error in thousands</i>	<i>Percent distribution</i>	<i>Standard error of percent</i>
All visits	89,796	3,202	100.0	. . .
Infectious and parasitic diseases. 001-139	3,113	215	3.5	0.2
Neoplasms 140-239	254	35	0.3	0.0
Endocrine, nutritional, and metabolic diseases and immunity disorders 240-279	1,087	73	1.2	0.1
Mental disorders 290-319	2,381	206	2.7	0.2
Diseases of the nervous system and sense organs. 320-389	6,026	365	6.7	0.3
Diseases of the circulatory system 390-459	3,875	179	4.3	0.2
Diseases of the respiratory system 460-519	10,905	605	12.1	0.4
Diseases of the digestive system 520-579	5,469	280	6.1	0.2
Diseases of the genitourinary system 580-629	3,810	202	4.2	0.2
Diseases of the skin and subcutaneous tissue 680-709	2,666	193	3.0	0.2
Diseases of the musculoskeletal system and connective tissue 710-739	3,812	185	4.2	0.2
Symptoms, signs, and ill-defined conditions 780-799	10,484	496	11.7	0.3
Injury and poisoning 800-999	29,389	1,092	32.7	0.7
Supplementary classification V01-V82	3,000	170	3.3	0.2
All other diagnoses ²	2,511	157	2.8	0.2
Unknown ³	1,012	142	1.1	0.2

¹Based on the *International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) (3)*.

²Includes diseases of the blood and blood-forming organs (280-289); complications of pregnancy, childbirth, and the puerperium (630-676); congenital anomalies (740-759); and certain conditions originating in the perinatal period (760-779).

³Includes blank diagnoses, uncodable diagnoses, and illegible diagnoses.

Table 10. Number and percent distribution of emergency department visits with corresponding standard errors by the 20 principal diagnoses most frequently recorded by physicians: United States, 1992

<i>Principal diagnosis and ICD-9-CM code¹</i>	<i>Number of visits in thousands</i>	<i>Standard error in thousands</i>	<i>Percent distribution</i>	<i>Standard error of percent</i>
All visits	89,796	3,202	100.0	. . .
Suppurative and unspecified otitis media 382	3,162	302	3.5	0.3
Symptoms involving respiratory system and other chest symptoms 786	2,667	179	3.0	0.2
Other open wound of head. 873	2,578	133	2.9	0.1
Other symptoms involving abdomen and pelvis 789	2,353	157	2.6	0.1
General symptoms. 780	2,340	145	2.6	0.1
Acute upper respiratory infections of multiple or unspecified sites 465	1,998	199	2.2	0.2
Sprains and strains of other and unspecified parts of back 847	1,829	135	2.0	0.1
Other noninfectious gastroenteritis and colitis 558	1,805	150	2.0	0.2
Contusion of lower limb and of other and unspecified sites 924	1,784	133	2.0	0.1
Open wound of finger(s) 883	1,617	112	1.8	0.1
Asthma 493	1,467	108	1.6	0.1
Sprains and strains of ankle and foot 845	1,357	96	1.5	0.1
Other disorders of urethra and urinary tract. 599	1,340	92	1.5	0.1
Open wound of other and unspecified sites, except limbs 879	1,295	115	1.4	0.1
Contusion of upper limb. 923	1,273	93	1.4	0.1
Acute pharyngitis 462	1,260	103	1.4	0.1
Symptoms involving head and neck 784	1,244	80	1.4	0.1
Pneumonia, organism unspecified 486	1,142	109	1.3	0.1
Bronchitis, not specified as acute or chronic 490	1,041	77	1.2	0.1
Injury to blood vessels of head and neck 900	1,012	142	1.1	0.2
All other diagnoses	55,233	1,976	61.5	0.6

¹Based on the *International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) (3)*.

Table 11. Number and percent distribution of emergency department visits with corresponding standard errors by selected diagnostic/screening services: United States, 1992

<i>Diagnostic/screening services ordered or provided by hospital staff¹</i>	<i>Number of visits in thousands</i>	<i>Standard error in thousands</i>	<i>Percent distribution</i>	<i>Standard error of percent</i>
All visits	89,796	3,202	100.0	...
Blood pressure	66,177	2,637	73.7	1.3
Other blood test	25,812	1,089	28.7	0.6
Chest x ray	15,082	624	16.8	0.4
Urinalysis	13,620	621	15.2	0.4
Extremity x ray	13,539	544	15.1	0.4
EKG ²	11,886	549	13.2	0.4
Other diagnostic imaging	9,363	452	10.4	0.4
Mental status exam	5,276	877	5.9	0.9
CT scan/MRI ³	2,161	157	2.4	0.2
HIV serology ⁴	270	52	0.3	0.1
Other	17,725	1,416	19.7	1.3
None	10,861	727	12.1	0.7

¹Number may exceed total because more than one service may be reported per visit.

²EKG is electrocardiogram.

³CT is computerized tomography. MRI is magnetic resonance imaging.

⁴HIV is human immunodeficiency virus.

Table 12. Number and percent distribution of emergency department visits with corresponding standard errors by selected procedures: United States, 1992

<i>Procedures provided by hospital staff¹</i>	<i>Number of visits in thousands</i>	<i>Standard error in thousands</i>	<i>Percent distribution</i>	<i>Standard error of percent</i>
All visits	89,796	3,202	100.0	...
Intravenous fluids	12,955	601	14.4	0.4
Wound care	11,550	520	12.9	0.4
Orthopedic care	7,072	378	7.9	0.3
Eye/ENT care ²	2,484	216	2.8	0.2
Bladder catheter	2,319	157	2.6	0.2
Nasogastric tube/gastric lavage	878	79	1.0	0.1
Endotracheal intubation	408	44	0.5	0.0
CPR ³	291	31	0.3	0.0
Lumbar puncture	244	41	0.3	0.0
Other	6,692	453	7.5	0.4
None	51,783	1,969	57.7	0.8

¹Number may exceed total because more than one procedure may be reported per visit.

²ENT is ears, nose, and throat.

³CPR is cardiopulmonary resuscitation.

Providers seen

A registered nurse and staff physician were seen at 83.1 percent and 82.5 percent of ED visits, respectively (table 14).

Disposition of visit

About 14 percent of ED visits resulted in hospital admission (table 15). Thirty-seven percent of ED visits resulted in a referral to another physician or clinic, and for 25.0 percent the disposition was "return to ED PRN."

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Additional information

Additional reports that utilize 1992 NHAMCS data are forthcoming. Survey data will also be available on computer tape from the National Technical Information Service at a nominal cost in summer 1994. Questions regarding this report, future reports, or the NHAMCS may be directed to the Ambulatory Care Statistics Branch by calling (301) 436-7132.

Table 13. Number and percent distribution of emergency department visits with corresponding standard errors by patient's expected source of payment: United States, 1992

<i>Expected source of payment¹</i>	<i>Number of visits in thousands</i>	<i>Standard error in thousands</i>	<i>Percent distribution</i>	<i>Standard error of percent</i>
All visits	89,796	3,202	100.0	...
Private/commercial	32,332	1,614	36.0	1.1
Medicaid	20,340	1,215	22.7	1.0
Medicare	13,582	561	15.1	0.5
Patient paid	12,402	708	13.8	0.7
HMO/other prepaid ²	6,566	756	7.3	0.8
Other government	4,032	399	4.5	0.4
No charge	*778	357	*0.0	0.4
Other	6,117	468	6.8	0.5
Unknown	1,505	271	1.7	0.3

¹Numbers may exceed total because more than one source of payment may be coded for each visit.

²HMO is health maintenance organization.

Table 14. Number and percent distribution of emergency department visits with corresponding standard errors by type of provider seen: United States, 1992

<i>Type of provider¹</i>	<i>Number of visits in thousands</i>	<i>Standard error in thousands</i>	<i>Percent distribution</i>	<i>Standard error of percent</i>
All visits	89,796	3,202	100.0	...
Registered nurse	74,635	3,112	83.1	1.5
Staff physician	74,080	3,062	82.5	1.6
Resident/intern	12,294	1,385	13.7	1.5
Other physician	10,535	1,209	11.7	1.3
Nurse's aide	8,494	1,195	9.5	1.3
Licensed practical nurse	5,837	898	6.5	1.0
Physician assistant	1,757	353	2.0	0.4
Nurse practitioner	1,748	451	1.9	0.5

¹Numbers may exceed total because more than one provider may be reported per visit.

Table 15. Number and percent distribution of emergency department visits with corresponding standard errors by disposition of visit: United States, 1992

<i>Disposition¹</i>	<i>Number of visits in thousands</i>	<i>Standard error in thousands</i>	<i>Percent distribution</i>	<i>Standard error of percent</i>
All visits	89,796	3,202	100.0	...
Refer to other physician/clinic	33,215	1,606	37.0	1.4
Return to ED PRN ²	22,429	1,507	25.0	1.4
Return to referring physician	19,030	1,404	21.2	1.4
Admit to hospital	12,110	583	13.5	0.5
No follow-up planned	5,339	529	5.9	0.6
Return to ED appointment	4,322	403	4.8	0.4
Transfer to other facility	1,093	85	1.2	0.1
Left AMA ³	1,047	107	1.2	0.1
DOA/died in ED ⁴	282	36	0.3	0.0
Other	4,589	545	5.1	0.6

¹Numbers may exceed total because more than one disposition may be reported per visit.

²PRN is as needed.

³AMA is against medical advice.

⁴DOA is dead on arrival.

Technical notes

Source of data and sample design

The information presented in this report is based on data collected in the 1992 National Hospital Ambulatory Medical Care Survey (NHAMCS) from December 2, 1991, through December 27, 1992. The data were adjusted to produce annual estimates. The target universe of the NHAMCS includes visits made in the United States by patients to emergency departments (ED's) and outpatient departments (OPD's) of non-Federal, short-stay, or general hospitals. Telephone contacts are excluded.

A four-stage probability sample design is used in the NHAMCS, involving samples of primary sampling units (PSU's), hospitals with ED's and/or OPD's within PSU's, ED's within hospitals and/or clinics within OPD's, and patient visits within ED's and/or clinics. For 1992, a sample of 524 non-Federal, short-stay, or general hospitals was selected from the SMG Hospital Market Database. Of this group, 474 hospitals were in scope, or eligible to participate in the survey. The hospital response rate for the NHAMCS during this period was 93 percent. Based on the induction interview, 437 of the sample hospitals had ED's. Hospital staff were asked to complete Patient Record forms (figure 1) 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 ED's was 36,271.

Characteristics of the hospital, such as ownership and expected number of ED visits, were obtained from the hospital administrator during an induction interview. The U.S. Bureau of the Census, Housing Surveys Branch, was responsible for the survey's data collection. Data processing operations and medical coding were performed by the National Center for Health Statistics, Health Care Surveys Section, Research Triangle Park, North Carolina.

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 out of 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 used in this report were approximated 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 (5). Exact standard error estimates were used in tests of significance in this report. Standard errors for all estimates are presented in each table. Standard errors for rates can be calculated using the relative standard errors (RSE) for the number of visits (i.e., multiply the rate by the RSE for the estimate of interest).

Adjustments for hospital nonresponse

Estimates from NHAMCS data were adjusted to account for sample hospitals that were in scope but did not participate in the study. This adjustment was calculated to minimize the impact of nonresponse on final estimates by imputing to nonresponding hospitals data from visits to similar hospitals. For this purpose, hospitals were judged similar if they were in the same region, ownership control group, and metropolitan statistical area control group.

Adjustments for ED and/or clinic nonresponse

Estimates from NHAMCS data were adjusted to account for ED's and sample clinics that were in scope but did not participate in the study. This adjustment was calculated to minimize the impact of nonresponse on final estimates by imputing to nonresponding ED's or clinics' data from visits to similar ED's or clinics. For this purpose, ED's or clinics were judged similar if

they were in the same ED or clinic group.

Test of significance and rounding

The determination of statistical inference is based on the t-test. The Bonferroni inequality was used to establish the critical value for statistically significant differences (0.05 level of confidence). Terms relating to differences such as "higher than" indicate that the differences are 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 percents calculated from rounded data.

Definition of terms

Patient—An individual seeking personal health services who is not currently admitted to any health care institution on the premises.

Hospital—All hospitals with an average length of stay for all patients of less than 30 days (short-stay) or hospitals whose specialty is general (medical or surgical) or children's general. Federal hospitals and hospital units of institutions and hospitals with fewer than six beds staffed for patient use are excluded.

Emergency department—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 areas were selected with certainty into the sample. Off-site emergency departments open less than 24 hours are included if staffed by the hospital's emergency department.

Outpatient department—Hospital facility where nonurgent ambulatory

medical care is provided under the supervision of a physician.

Visit—A direct personal exchange between a patient and a physician or other health care provider working under the physician's supervision, for the purpose of seeking care and receiving personal health services.

Urgent/emergent—A patient visit in which the patient requires immediate attention for an acute illness or injury that threatens life or function and where delay would be harmful to the patient.

Nonurgent—Patient does not require attention immediately or within a few hours.

Symbols

- - - Data not available
 - . . . Category not applicable
 - Quantity zero
 - 0.0 Quantity more than zero but less than 0.05
 - Z Quantity more than zero but less than 500 where numbers are rounded to thousands
 - * Figure does not meet standard of reliability or precision (more than 30-percent relative standard error in numerator of percent or rate)
-

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