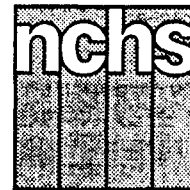


Advance Data



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

1991 Summary: National Hospital Discharge Survey

by Edmund J. Graves, Division of Health Care Statistics

Introduction

During 1991, an estimated 31.1 million inpatients, excluding newborn infants, were discharged from short-stay non-Federal hospitals in the United States. These patients used 199.1 million days of inpatient hospital care. The discharge rate was 124.1 discharges per 1,000 civilian population and the average length of stay was 6.4 days.

These and other statistics presented in this report are based on data collected by means of the National Hospital Discharge Survey (NHDS), a continuous survey that has been conducted by the National Center for Health Statistics (NCHS) since 1965. In 1991, data were abstracted from the medical records of approximately 274,000 patients discharged from 484 short-stay non-Federal hospitals. Beginning in 1988, a new three-stage stratified

sample design was put in operation. A brief description of the new design, data collection procedures, and estimation process and definitions of terms used in this report can be found in the section entitled "Technical notes." A description of the development and design of the original NHDS, which was in operation from 1965 to 1987, has been published (1). Differences may exist between data for 1988-91 and earlier years because of the redesign of the survey.

Medical data for hospitalized patients are coded according to the *International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM)* (2). Up to seven diagnoses and four procedures are coded for each discharge. Although diagnoses included in the ICD-9-CM section entitled "Supplementary classification of external causes of injury and poisoning" (codes

E800-E999) are used in the NHDS, these diagnoses are excluded from this report. The conditions diagnosed and procedures performed are presented here by chapter of ICD-9-CM. Within these chapters, a few diagnoses and procedures or groups thereof also are shown. These specific categories were selected primarily because of their large estimates or because they are of special interest. More detailed analyses of NHDS data are published in Series 13 of the NCHS *Vital and Health Statistics* reports.

Starting in 1985, some hospitals participating in the NHDS have submitted machine-readable data tapes. In 1991, approximately 33 percent of the hospitals used this method to submit data. Analysis indicates that a greater number of nonsurgical procedures per patient are recorded from these hospitals

Acknowledgments

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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
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Centers for Disease Control and Prevention
National Center for Health Statistics



Table 1. Number of inpatients discharged from short-stay hospitals by selected characteristics: United States, 1991

[Discharges from non-Federal hospitals. Excludes newborn infants]

<i>Selected characteristic</i>	<i>Both sexes</i>	<i>Male</i>	<i>Female</i>
Number of patients discharged in thousands			
Total	31,098	12,478	18,620
Age			
Under 15 years	2,498	1,435	1,064
15-44 years	11,620	3,248	8,372
45-64 years	6,173	3,088	3,085
65 years and over	10,806	4,708	6,098
Region			
Northeast	7,153	3,047	4,106
Midwest	7,315	2,995	4,321
South	11,290	4,418	6,871
West	5,340	2,018	3,322

Table 2. Rate of inpatients discharged from short-stay hospitals, by age, geographic region, and sex: United States, 1991

[Discharges from non-Federal hospitals. Excludes newborn infants]

<i>Age and region</i>	<i>Both sexes</i>	<i>Male</i>	<i>Female</i>
Rate of patients discharged per 1,000 population			
Total	124.1	102.7	144.3
Age			
Under 15 years	45.3	50.8	39.5
15-44 years	99.3	55.9	142.1
45-64 years	132.2	137.5	127.2
65 years and over	340.3	368.1	321.6
Region			
Northeast	140.6	124.7	155.3
Midwest	121.7	102.8	139.6
South	131.2	106.6	154.0
West	99.7	76.1	122.9

Table 3. Average length of stay for inpatients discharged from short-stay hospitals by selected characteristics: United States, 1991

[Discharges from non-Federal hospitals. Excludes newborn infants]

<i>Selected characteristic</i>	<i>Both sexes</i>	<i>Male</i>	<i>Female</i>
Average length of stay in days			
Total	6.4	7.0	6.0
Age			
Under 15 years	4.8	4.9	4.8
15-44 years	4.6	6.4	4.0
45-64 years	6.5	6.5	6.5
65 years and over	8.6	8.3	8.8
Region			
Northeast	7.3	7.6	7.1
Midwest	6.5	6.9	6.2
South	6.2	6.8	5.8
West	5.4	6.3	4.8

than from hospitals submitting data in the traditional manual mode (see "Technical notes"). A portion of the increases from 1984 to 1991 in the estimates for miscellaneous diagnostic and therapeutic procedures and, therefore, for total procedures may be due to this change in data collection methods.

In addition, the 1991 data were the first for which all ICD-9-CM procedure codes were used in the NHDS. In previous years, selected codes were excluded. These were primarily codes for certain miscellaneous diagnostic and therapeutic procedures.

Data highlights

Utilization by patient and hospital characteristics

The number, rate, and average length of stay of patients discharged from short-stay non-Federal hospitals are shown by age, geographic region, and sex in tables 1-3. The 31.1 million patients discharged from short-stay hospitals during 1991 comprised an estimated 12.5 million males and 18.6 million females. The rate per 1,000 population for females was 144, which was 41 percent higher than the rate of 103 for males. The number and rate of discharges are higher for females than for males largely because of women 15-44 years of age who are hospitalized for deliveries and pregnancy-related conditions.

The average length of stay was 7.0 days for males and 6.0 days for females during 1991. The average length of stay of the 4.0 million women who were hospitalized for deliveries was 2.8 days. The average length of stay was 4.8 days for patients under 15 years of age, 4.6 days for patients 15-44 years of age, 6.5 days for patients 45-64 years of age, and 8.6 days for patients 65 years of age and over.

The number of discharges from short-stay hospitals by geographic region during 1991 ranged from 11.3 million in the South to 5.3 million in the West. Regional differences in the number of discharges are accounted

for in part by variations in the population sizes. The rates per 1,000 population ranged from 141 in the Northeast Region to 100 in the West. Average lengths of stay by geographic region were 5.4 days in the West, 6.2 days in the South, 6.5 days in the Midwest, and 7.3 days in the Northeast.

Utilization by diagnosis

Diseases of the circulatory system ranked first in 1991 of the ICD-9-CM diagnostic chapters as a principal or first-listed diagnosis for patients discharged from non-Federal short-stay hospitals. These conditions accounted for an estimated 5.3 million discharges. Other leading ICD-9-CM diagnostic chapters were supplementary classifications (including females with deliveries) (4.4 million discharges), diseases of the digestive system (3.3 million discharges), and diseases of the respiratory system (3.1 million discharges). Approximately 52 percent of the patients discharged from non-Federal short-stay hospitals were included in these four ICD-9-CM diagnostic chapters.

The diagnostic categories presented in this report were selected either because they appear as principal or first-listed diagnoses with high frequency or because the conditions are of special interest. Many of these categories (such as malignant neoplasms, psychoses, and fractures) are groupings of more detailed diagnoses.

The number and rate of discharges and average length of stay for each ICD-9-CM diagnostic chapter and selected categories are shown by sex and age in tables 4-6. The most common diagnostic categories for all patients were deliveries and heart disease. Other leading diagnostic categories were malignant neoplasms, pneumonia, and fractures. Excluding deliveries, these last four diagnostic categories were the leading first-listed diagnoses for both males and females. Some of the more common diagnoses for patients

under 15 years of age were acute respiratory infections, pneumonia, and asthma. For patients 15-44 years of age, frequent diagnoses were deliveries, psychoses, and fractures. For patients 45-64 years of age and 65 years of age and over, heart disease and malignant neoplasms were major causes of hospitalization. The average length of stay for all patients ranged from 1.2 days for chronic disease of tonsils and adenoids to 14.6 days for malignant neoplasm of large intestine and rectum.

Utilization by procedure

One or more surgical or nonsurgical procedures were performed for an estimated 21.0 million of the 31.1 million inpatients discharged from short-stay hospitals during 1991. A total of 43.9 million procedures, or an average of 2.1 per patient who underwent at least one procedure, were recorded in 1991.

Procedures are grouped in the tables of this report by the ICD-9-CM procedure chapters. Selected procedures within these chapters also are presented by specific categories. Some of these categories (such as cesarean section and hysterectomy) are presented as single categories even though they are divided into more precise subgroups in ICD-9-CM.

More than three-fourths of all the surgical and nonsurgical procedures performed during 1991 are listed in just 5 of the 16 procedure chapters. These were miscellaneous diagnostic and therapeutic procedures (14.8 million), obstetrical procedures (6.9 million), operations on the digestive system (5.6 million), operations on the cardiovascular system (4.1 million), and operations on the musculoskeletal system (3.3 million).

The number and rate of all-listed procedures in 1991 for each ICD-9-CM procedure chapter and selected procedure categories are shown by sex and age in tables 7 and 8. Of the 43.9 million procedures performed during 1991, 17.3 million were for males and 26.7 million were

for females. The corresponding rates per 100,000 population were 17,529.3 for both sexes, 14,204.6 for males, and 20,661.0 for females. Frequent procedures for males were arteriography and angiocardiology, computerized axial tomography, and diagnostic ultrasound. Procedures commonly performed on females were episiotomy, fetal EKG and fetal monitoring, and diagnostic ultrasound.

The rate of procedures by age per 100,000 population ranged from 4,054.9 for patients under 15 years of age to 47,468.0 for patients 65 years of age and over. Commonly performed procedures for patients under 15 years of age were respiratory therapy, spinal tap, computerized axial tomography, and diagnostic ultrasound; for patients 15-44 years of age, episiotomy, fetal EKG and fetal monitoring, and cesarean section; for patients 45-64 years of age, arteriography and angiocardiology, cardiac catheterization, diagnostic ultrasound, and computerized axial tomography; for patients 65 years of age and over, arteriography and angiocardiology, computerized axial tomography, and diagnostic ultrasound.

References

1. Simmons WR. Development of the design of the NCHS Hospital Discharge Survey. National Center for Health Statistics. *Vital Health Stat* 2(39). 1970.
2. Public Health Service and Health Care Financing Administration. *International Classification of Diseases, 9th Revision, Clinical Modification*. Washington: Public Health Service. 1980.
3. SMG Marketing Group, Inc. *Hospital Market Database*. Chicago: Healthcare Information Specialists. 1989.
4. SMG Marketing Group, Inc. *Hospital Market Database*. Chicago, Illinois: Healthcare information Specialists. April 1991.
5. Shah BV. *SESUDAAN: Standard Errors Program for Computing of Standardized Rates from Sample Survey Data*. Research Triangle Park, North Carolina: Research Triangle Institute. 1981.

Table 4. Number of inpatients discharged from short-stay hospitals, by category of first-listed diagnosis, sex, and age: United States, 1991

[Discharges from non-Federal hospitals. Excludes newborn infants. Diagnostic groupings and code number inclusions are based on the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM)]

Category of first-listed diagnosis and ICD-9-CM Code	Total	Sex		Age			
		Male	Female	Under 15 years	15-44 years	45-64 years	65 years and over
Number of patients discharged in thousands							
All conditions	31,098	12,478	18,620	2,498	11,620	6,173	10,806
Infectious and parasitic diseases001-139	759	363	396	207	218	101	232
Septicemia038	240	103	137	20	22	39	159
Neoplasms140-239	2,001	860	1,141	52	363	626	960
Malignant neoplasms140-208,230-234	1,594	781	812	40	172	499	883
Malignant neoplasm of large intestine and rectum153-154,197.5	168	86	82	*	*5	39	124
Malignant neoplasm of trachea, bronchus, and lung162,197.0,197.3	236	147	89	*	10	101	125
Malignant neoplasm of breast174-175,198.81	158	*	156	*	25	59	73
Benign neoplasms and neoplasms of uncertain behavior and unspecified nature210-229,235-239	407	78	329	13	191	126	77
Endocrine, nutritional and metabolic diseases, and immunity disorders240-279	1,143	437	706	95	251	269	528
Diabetes mellitus250	429	185	245	21	121	128	160
Volume depletion276.5	329	121	208	50	46	44	189
Diseases of the blood and blood-forming organs280-289	348	167	181	59	110	58	121
Mental disorders290-319	1,657	840	817	61	1,009	328	260
Psychoses290-299	902	416	486	24	488	189	201
Alcohol dependence syndrome303	228	172	56	*	152	60	16
Diseases of the nervous system and sense organs320-389	755	352	404	147	195	153	261
Diseases of the central nervous system320-336,340-349	331	160	171	52	117	64	98
Diseases of the ear and mastoid process380-389	144	72	72	71	26	22	26
Diseases of the circulatory system390-459	5,338	2,728	2,611	28	396	1,509	3,405
Heart disease391-392.0,393-398,402,404,410-416,420-429	3,704	1,977	1,727	17	232	1,095	2,361
Acute myocardial infarction410	697	422	275	*	45	228	424
Coronary atherosclerosis414.0	384	263	121	-	22	172	190
Other ischemic heart disease411-413,414.1-414.9	876	461	415	*	48	313	514
Cardiac dysrhythmias427	536	249	287	*5	41	129	361
Congestive heart failure428.0	764	360	405	*	19	126	615
Cerebrovascular disease430-438	835	370	466	*	35	156	640
Diseases of the respiratory system460-519	3,052	1,508	1,544	736	500	530	1,286
Acute respiratory infections460-466	518	258	261	220	68	75	156
Chronic disease of tonsils and adenoids474	76	32	44	52	22	*	*
Pneumonia480-486	1,088	545	543	214	133	152	589
Asthma493	490	221	269	187	128	85	90
Diseases of the digestive system520-579	3,256	1,455	1,801	244	950	851	1,211
Ulcers of the stomach and small intestine531-534	237	125	112	*	43	69	124
Appendicitis540-543	232	129	103	55	138	26	12
Inguinal hernia550	135	120	14	22	26	41	46
Noninfectious enteritis and colitis555-558	351	142	209	91	108	62	90
Cholelithiasis574	552	159	393	*	195	187	168
Diseases of the genitourinary system580-629	2,071	781	1,291	72	847	457	695
Calculus of kidney and ureter592	241	160	81	*	117	84	40
Hyperplasia of prostate600	229	229	...	-	*	49	180
Complications of pregnancy, childbirth, and the puerperium ¹630-676	723	...	723	*	718	*	...
Abortions and ectopic and molar pregnancies630-639	180	...	180	*	178	*	...
Diseases of the skin and subcutaneous tissue680-709	462	245	217	49	142	108	162
Cellulitis and abscess681-682	297	165	132	31	94	77	95
Diseases of the musculoskeletal system and connective tissue710-739	1,600	738	862	50	548	450	553
Arthropathies and related disorders710-719	526	228	298	14	125	125	261
Intervertebral disc disorders722	391	225	166	*	209	132	51
Congenital anomalies740-759	192	101	91	125	37	21	10
Certain conditions originating in the perinatal period760-779	147	79	68	146	*	-	*
Symptoms, signs, and ill-defined conditions780-799	386	202	184	63	146	115	62
Injury and poisoning800-999	2,768	1,437	1,331	286	1,102	492	888
Fractures, all sites800-829	1,034	481	553	104	320	158	452
Fracture of neck of femur820	300	80	219	*	10	27	259
Intracranial injuries (excluding those with skull fracture)850-854	180	106	74	30	96	20	34
Lacerations and open wounds870-904	193	137	56	25	128	24	16
Supplementary classificationsV01-V82	4,438	188	4,250	76	4,089	105	169
Females with deliveriesV27	3,973	...	3,973	14	3,956	*	...

¹First-listed diagnosis for females with deliveries is coded V27, shown under "supplementary classifications."

Table 5. Rate of inpatients discharged from short-stay hospitals, by category of first-listed diagnosis, sex, and age: United States, 1991

[Discharges from non-Federal hospitals. Excludes newborn infants. Diagnostic groupings and code number inclusions are based on the *International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM)*]

Category of first-listed diagnosis and ICD-9-CM Code	Total	Sex		Age			
		Male	Female	Under 15 years	15-44 years	45-64 years	65 years and over
Rate of inpatients discharged per 10,000 population							
All conditions	1,241.1	1,026.7	1,443.1	453.2	993.4	1,321.6	3,403.1
Infectious and parasitic diseases001-139	30.3	29.8	30.7	37.5	18.7	21.7	73.2
Septicemia038	9.6	8.5	10.6	3.7	1.9	8.3	50.2
Neoplasms140-239	79.9	70.7	88.4	9.5	31.0	133.9	302.3
Malignant neoplasms140-208,230-234	63.6	64.3	63.0	7.2	14.7	106.9	278.1
Malignant neoplasm of large intestine and rectum153-154,197.5	6.7	7.0	6.4	*	*0.4	8.3	39.0
Malignant neoplasm of trachea, bronchus, and lung162,197.0,197.3	9.4	12.1	6.9	*	0.8	21.6	39.3
Malignant neoplasm of breast174-175,198.81	6.3	*	12.1	*	2.2	12.5	23.1
Benign neoplasms and neoplasms of uncertain behavior and unspecified nature210-229,235-239	16.2	6.4	25.5	2.3	16.3	27.0	24.3
Endocrine, nutritional and metabolic diseases, and immunity disorders240-279	45.6	35.9	54.7	17.2	21.5	57.6	166.4
Diabetes mellitus250	17.1	15.2	19.0	3.7	10.4	27.4	50.3
Volume depletion276.5	13.1	10.0	16.1	9.1	3.9	9.4	59.6
Diseases of the blood and blood-forming organs280-289	13.9	13.7	14.1	10.7	9.4	12.4	38.2
Mental disorders290-319	66.1	69.1	63.4	11.0	86.2	70.3	81.9
Psychoses290-299	36.0	34.2	37.7	4.3	41.7	40.5	63.3
Alcohol dependence syndrome303	9.1	14.2	4.3	*	13.0	12.9	5.0
Diseases of the nervous system and sense organs320-389	30.1	28.9	31.3	26.6	16.6	32.8	82.2
Diseases of the central nervous system320-336,340-349	13.2	13.1	13.3	9.5	10.0	13.7	30.8
Diseases of the ear and mastoid process380-389	5.8	6.0	5.6	12.8	2.2	4.7	8.2
Diseases of the circulatory system390-459	213.1	224.4	202.3	5.1	33.9	323.1	1,072.4
Heart disease391-392.0,393-398,402,404,410-416,420-429	147.8	162.6	133.9	3.0	19.8	234.3	743.5
Acute myocardial infarction410	27.8	34.7	21.3	*	3.8	48.8	133.5
Coronary atherosclerosis414.0	15.3	21.7	9.3	-	1.9	36.8	60.0
Other ischemic heart disease411-413,414.1-414.9	35.0	37.9	32.1	*	4.1	67.0	161.7
Cardiac dysrhythmias427	21.4	20.5	22.3	*1.0	3.5	27.5	113.8
Congestive heart failure428.0	30.5	29.6	31.4	*	1.6	27.0	193.6
Cerebrovascular disease430-438	33.3	30.4	36.1	*	3.0	33.5	201.5
Diseases of the respiratory system460-519	121.8	124.1	119.7	133.6	42.7	113.4	405.2
Acute respiratory infections460-466	20.7	21.2	20.2	39.8	5.8	16.0	49.2
Chronic disease of tonsils and adenoids474	3.0	2.6	3.4	9.5	1.9	*	*
Pneumonia480-486	43.4	44.8	42.1	38.9	11.4	32.5	185.5
Asthma493	19.6	18.2	20.9	33.9	10.9	18.2	28.5
Diseases of the digestive system520-579	129.9	119.7	139.6	44.3	81.2	182.1	381.5
Ulcers of the stomach and small intestine531-534	9.5	10.3	8.7	*	3.6	14.8	39.1
Appendicitis540-543	9.2	10.6	8.0	10.1	11.8	5.6	3.8
Inguinal hernia550	5.4	9.9	1.1	4.0	2.2	8.8	14.5
Noninfectious enteritis and colitis555-558	14.0	11.7	16.2	16.5	9.2	13.4	28.4
Cholelithiasis574	22.0	13.1	30.4	*	16.7	39.9	53.0
Diseases of the genitourinary system580-629	82.7	64.2	100.0	13.0	72.4	97.9	218.9
Calculus of kidney and ureter592	9.6	13.2	6.3	*	10.0	18.0	12.6
Hyperplasia of prostate600	9.2	18.9	...	-	*	10.4	56.7
Complications of pregnancy, childbirth, and the puerperium ¹630-676	28.8	...	56.0	*	61.4	*	...
Abortions and ectopic and molar pregnancies630-639	7.2	...	13.9	*	15.3	*	...
Diseases of the skin and subcutaneous tissue680-709	18.4	20.1	16.8	8.9	12.1	23.2	51.1
Cellulitis and abscess681-682	11.9	13.6	10.2	5.6	8.0	16.5	30.0
Diseases of the musculoskeletal system and connective tissue710-739	63.9	60.7	66.8	9.0	46.8	96.3	174.1
Arthropathies and related disorders710-719	21.0	18.7	23.1	2.6	10.7	26.7	82.3
Intervertebral disc disorders722	15.6	18.5	12.9	*	17.8	28.3	15.9
Congenital anomalies740-759	7.7	8.3	7.1	22.6	3.1	4.4	3.2
Certain conditions originating in the perinatal period760-779	5.9	6.5	5.3	26.4	*	-	*
Symptoms, signs, and ill-defined conditions780-799	15.4	16.6	14.3	11.3	12.5	24.6	19.7
Injury and poisoning800-999	110.5	118.2	103.2	51.9	94.2	105.4	279.5
Fractures, all sites800-829	41.3	39.6	42.9	18.9	27.4	33.8	142.4
Fracture of neck of femur820	12.0	6.6	17.0	*	0.9	5.8	81.4
Intracranial injuries (excluding those with skull fracture)850-854	7.2	8.7	5.7	5.5	8.2	4.3	10.8
Lacerations and open wounds870-904	7.7	11.3	4.4	4.5	11.0	5.2	5.0
Supplementary classificationsV01-V82	177.1	15.5	329.4	13.8	349.5	22.4	53.2
Females with deliveriesV27	158.6	...	307.9	2.5	338.2	*	...

¹First-listed diagnosis for females with deliveries is coded V27, shown under "supplementary classifications."

Table 6. Average length of stay for inpatients discharged from short-stay hospitals, by category of first-listed diagnosis, sex, and age: United States, 1991[Discharges from non-Federal hospitals. Excludes newborn infants. Diagnostic groupings and code number inclusions are based on the *International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM)*]

Category of first-listed diagnosis and ICD-9-CM Code	Total	Sex		Age			
		Male	Female	Under 15 years	15-44 years	45-64 years	65 years and over
Average length of stay in days							
All conditions	6.4	7.0	6.0	4.8	4.6	6.5	8.6
Infectious and parasitic diseases001-139	8.5	8.9	8.1	3.8	8.6	11.3	11.3
Septicemia038	11.6	11.7	11.5	6.1	11.1	11.7	12.3
Neoplasms140-239	8.2	9.2	7.5	6.3	5.5	7.5	9.8
Malignant neoplasms140-208,230-234	9.2	9.7	8.7	7.0	7.4	8.2	10.1
Malignant neoplasm of large intestine and rectum153-154,197.5	14.6	16.7	12.4	*	*8.1	10.7	16.1
Malignant neoplasm of trachea, bronchus, and lung162,197.0,197.3	8.6	8.5	8.7	*	5.9	7.8	9.5
Malignant neoplasm of breast174-175,198.81	4.4	*	4.4	*	3.8	4.6	4.5
Benign neoplasms and neoplasms of uncertain behavior and unspecified nature210-229,235-239	4.5	4.6	4.4	4.1	3.8	4.4	6.1
Endocrine, nutritional and metabolic diseases, and immunity disorders240-279	7.1	7.1	7.1	4.3	4.6	6.9	8.9
Diabetes mellitus250	7.1	6.8	7.3	4.8	4.7	7.5	8.9
Volume depletion276.5	7.5	8.5	6.9	2.9	4.0	6.8	9.8
Diseases of the blood and blood-forming organs280-289	6.2	6.1	6.3	4.3	5.6	6.6	7.5
Mental disorders290-319	11.4	11.0	11.9	15.9	11.0	10.8	12.8
Psychoses290-299	13.5	13.0	13.8	17.3	13.1	13.3	14.1
Alcohol dependence syndrome303	9.5	9.1	10.6	*	9.9	8.3	9.5
Diseases of the nervous system and sense organs320-389	5.7	5.8	5.6	4.3	4.8	5.5	7.2
Diseases of the central nervous system320-336,340-349	8.8	8.7	9.0	6.7	5.6	9.1	13.7
Diseases of the ear and mastoid process380-389	2.8	2.7	3.0	2.6	3.2	2.5	3.3
Diseases of the circulatory system390-459	7.3	7.0	7.6	10.1	5.6	6.4	7.9
Heart disease391-392.0,393-398,402,404,410-416,420-429	6.8	6.7	7.0	13.4	5.5	6.3	7.2
Acute myocardial infarction410	8.1	7.5	9.1	*	5.9	7.2	8.8
Coronary atherosclerosis414.0	7.1	7.4	6.5	-	5.4	8.0	6.5
Other ischemic heart disease411-413,414.1-414.9	5.0	5.0	5.1	*	3.9	4.3	5.6
Cardiac dysrhythmias427	5.3	5.0	5.5	*4.0	3.6	4.8	5.6
Congestive heart failure428.0	7.9	7.5	8.4	*	7.4	7.6	7.9
Cerebrovascular disease430-438	9.3	9.1	9.6	*	9.4	7.9	9.7
Diseases of the respiratory system460-519	6.8	6.4	7.1	3.5	5.0	7.0	9.2
Acute respiratory infections460-466	4.8	4.1	5.4	3.1	4.2	5.5	7.0
Chronic disease of tonsils and adenoids474	1.2	1.3	1.1	1.2	1.2	*	*
Pneumonia480-486	8.2	7.9	8.5	4.1	6.5	7.9	10.2
Asthma493	4.5	4.1	4.9	3.0	4.5	5.2	7.2
Diseases of the digestive system520-579	5.9	5.9	5.9	3.7	4.8	5.5	7.6
Ulcers of the stomach and small intestine531-534	6.9	6.6	7.3	*	4.6	5.6	8.5
Appendicitis540-543	4.2	4.2	4.3	3.9	3.7	5.7	8.6
Inguinal hernia550	2.4	2.4	2.5	1.5	1.5	1.8	3.8
Noninfectious enteritis and colitis555-558	5.6	5.8	5.4	3.3	5.1	6.5	7.7
Cholelithiasis574	5.0	5.3	4.8	*	4.6	4.0	6.4
Diseases of the genitourinary system580-629	4.8	5.3	4.5	4.0	3.7	4.7	6.5
Calculus of kidney and ureter592	2.7	2.5	3.2	*	2.4	2.8	3.6
Hyperplasia of prostate600	5.3	5.3	...	-	*	7.3	4.8
Complications of pregnancy, childbirth, and the puerperium ¹630-676	2.9	...	2.9	*	2.9	*	...
Abortions and ectopic and molar pregnancies630-639	2.4	...	2.4	*	2.4	*	...
Diseases of the skin and subcutaneous tissue680-709	8.4	8.0	8.9	3.8	7.3	7.8	11.2
Cellulitis and abscess681-682	7.1	7.0	7.3	3.7	6.0	7.2	9.3
Diseases of the musculoskeletal system and connective tissue710-739	6.4	5.7	7.0	5.4	4.7	5.5	8.9
Arthropathies and related disorders710-719	7.4	6.6	8.0	5.3	4.1	6.7	9.4
Intervertebral disc disorders722	5.0	4.5	5.6	*	4.5	4.7	7.5
Congenital anomalies740-759	6.2	6.2	6.2	6.8	4.5	5.9	5.5
Certain conditions originating in the perinatal period760-779	10.7	11.3	10.1	10.7	*	-	*
Symptoms, signs, and ill-defined conditions780-799	3.0	3.0	3.0	2.5	2.6	2.7	5.2
Injury and poisoning800-999	6.9	6.3	7.6	4.5	5.5	6.5	9.6
Fractures, all sites800-829	8.4	7.3	9.4	5.4	6.1	7.2	11.3
Fracture of neck of femur820	12.3	10.9	12.8	*	7.4	10.4	12.8
Intracranial injuries (excluding those with skull fracture)850-854	5.8	6.2	5.2	2.5	5.9	8.0	7.1
Lacerations and open wounds870-904	4.9	3.7	7.8	3.4	5.2	4.3	5.2
Supplementary classificationsV01-V82	3.3	7.5	3.1	4.7	2.8	5.8	12.1
Females with deliveriesV27	2.8	...	2.8	2.4	2.8	*	...

¹First-listed diagnosis for females with deliveries is coded V27, shown under "supplementary classifications."

Table 7. Number of all-listed procedures for inpatients discharged from short-stay hospitals, by procedure category, sex, and age: United States, 1991

[Discharges from non-Federal hospitals. Excludes newborn infants. Procedure groupings and code number inclusions are based on the *International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM)*]

Procedure category and ICD-9-CM Code	Total	Sex		Age			
		Male	Female	Under 15 years	15-44 years	45-64 years	65 years and over
Number of all-listed procedures in thousands							
All procedures	43,922	17,264	26,658	2,235	17,090	9,524	15,073
Operations on the nervous system01-05	970	500	470	236	328	196	210
Spinal tap03.31	380	208	172	183	94	46	57
Operations on the endocrine system06-07	103	28	75	*	41	33	25
Operations on the eye08-16	399	189	210	25	65	85	224
Operations on the ear18-20	129	75	54	66	36	15	13
Operations on the nose, mouth, and pharynx21-29	541	288	254	118	237	96	90
Tonsillectomy with or without adenoidectomy28.2-28.3	86	40	46	54	28	*	*
Operations on the respiratory system30-34	956	561	396	60	173	290	433
Bronchoscopy with or without biopsy33.21-33.24,33.27	309	186	123	18	45	95	152
Operations on the cardiovascular system35-39	4,123	2,383	1,740	148	477	1,476	2,022
Removal of coronary artery obstruction36.0	331	223	107	*	24	163	143
Coronary artery bypass graft ¹36.1	407	296	111	*	23	178	206
Cardiac catheterization37.21-37.23	1,000	603	397	19	89	447	446
Insertion, replacement, removal, and revision of pacemaker leads or device37.7-37.8	300	145	155	*	9	44	244
Shunt or vascular bypass39.0-39.2	168	92	76	*	14	57	93
Hemodialysis39.95	261	129	132	*	61	79	118
Operations on the hemic and lymphatic system40-41	392	212	180	20	77	110	185
Operations on the digestive system42-54	5,559	2,319	3,241	221	1,571	1,400	2,367
Endoscopy of small intestine with or without biopsy45.11-45.14,45.16	804	391	413	11	145	202	446
Endoscopy of large intestine with or without biopsy45.21-45.25	574	234	340	*	90	127	353
Partial excision of large intestine45.7	220	94	125	*	23	57	139
Appendectomy, excluding incidental47.0	255	135	120	57	156	29	14
Cholecystectomy51.2	571	166	404	*	194	189	185
Repair of inguinal hernia53.0-53.1	172	155	17	25	31	51	65
Lysis of peritoneal adhesions54.5	339	60	279	*5	167	75	92
Operations on the urinary system55-59	1,558	884	674	47	376	386	750
Cystoscopy with or without biopsy57.31-57.33	458	333	125	9	64	103	281
Operations on the male genital organs60-64	584	584	...	46	40	116	382
Prostatectomy60.2-60.6	363	363	*	68	295
Operations on the female genital organs65-71	2,308	...	2,308	*8	1,624	445	231
Oophorectomy and salpingo-oophorectomy65.3-65.6	458	...	458	*	248	150	59
Bilateral destruction or occlusion of Fallopian tubes66.2-66.3	401	...	401	*	400	*	...
Hysterectomy68.3-68.7	546	...	546	-	322	161	63
Dilation and curettage of uterus69.0	196	...	196	*	159	22	14
Repair of cystocele and rectocele70.5	139	...	139	*	40	48	50
Obstetrical procedures72-75	6,867	...	6,867	24	6,839	*	...
Episiotomy with or without forceps or vacuum extraction72.1,72.21,72.31,72.71,73.6	1,684	...	1,684	*8	1,675	*	...
Artificial rupture of membranes73.0	775	...	775	*	771	*	...
Cesarean section74.0-74.2,74.4,74.99	933	...	933	*	931	*	...
Fetal EKG (scalp) and fetal monitoring, not otherwise specified75.32,75.34	1,327	...	1,327	*	1,321	*	...
Repair of current obstetric laceration75.5-75.6	795	...	795	*	792	*	...
Operations on the musculoskeletal system76-84	3,323	1,710	1,614	208	1,323	798	994
Partial excision of bone76.2-76.3,77.6-77.8	216	119	97	10	96	67	43
Open reduction of fracture with internal fixation79.3	418	193	225	27	145	76	170
Excision or destruction of intervertebral disc80.5	306	181	125	*	162	102	42
Total hip replacement81.51	117	50	67	*	*8	31	78
Total knee replacement81.54	160	60	100	-	*	36	121
Operations on the integumentary system85-86	1,324	552	773	75	488	330	431
Mastectomy85.4	118	*	117	*	17	42	58
Debridement of wound, infection, or burn86.22,86.28	326	181	145	19	107	62	138
Skin graft86.6-86.7	99	60	39	9	40	22	27
Miscellaneous diagnostic and therapeutic procedures87-99	14,785	6,981	7,804	929	3,397	3,743	6,715
Computerized axial tomography87.03,87.41,87.71,88.01,88.38	1,531	731	801	77	370	345	739
Pyelogram87.73-87.75	245	133	112	*	93	61	86
Arteriography and angiocardiology using contrast material88.4-88.5	1,718	989	729	22	182	723	791
Diagnostic ultrasound88.7	1,592	652	940	74	424	354	739
Circulatory monitoring89.6	703	339	364	29	118	167	390
Radiolotope scan92.0-92.1	539	228	311	16	105	148	270
Respiratory therapy93.9	1,214	596	618	196	193	236	588

¹The number of discharged patients with a coronary artery bypass graft was 265,000.

Table 8. Rate of all-listed procedures for inpatients discharged from short-stay hospitals, by procedure category, sex, and age: United States, 1991[Discharges from non-Federal hospitals. Excludes newborn infants. Procedure groupings and code number inclusions are based on the *International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM)*]

Procedure category and ICD-9-CM Code	Total	Sex		Age			
		Male	Female	Under 15 years	15-44 years	45-64 years	65 years and over
Rate of all-listed procedures in thousands							
All procedures	17,529.3	14,204.6	20,661.0	4,054.9	14,610.5	20,389.8	47,468.0
Operations on the nervous system01-05	387.3	411.5	364.5	428.9	280.6	419.7	660.4
Spinal tap03.31	151.6	171.1	133.2	332.2	80.6	97.5	178.8
Operations on the endocrine system06-07	41.0	22.9	58.1	*	35.3	71.7	77.2
Operations on the eye08-16	159.2	155.7	162.4	44.5	55.8	182.8	704.3
Operations on the ear18-20	51.6	61.7	42.0	119.3	30.6	31.7	40.3
Operations on the nose, mouth, and pharynx21-29	216.1	236.7	196.7	214.4	202.6	205.4	284.2
Tonsillectomy with or without adenoidectomy28.2-28.3	34.1	32.5	35.7	98.2	23.8	*	*
Operations on the respiratory system30-34	381.6	461.2	306.6	109.7	147.5	620.5	1,364.8
Bronchoscopy with or without biopsy33.21-33.24,33.27	123.4	153.4	95.2	32.2	38.4	202.3	479.0
Operations on the cardiovascular system35-39	1,645.5	1,960.3	1,348.9	269.0	407.5	3,161.0	6,366.7
Removal of coronary artery obstruction36.0	131.9	183.5	83.3	*	20.8	350.0	449.1
Coronary artery bypass graft ¹36.1	162.6	243.5	86.4	*	19.4	381.3	650.2
Cardiac catheterization37.21-37.23	399.1	496.0	307.9	33.7	75.9	956.3	1,404.8
Insertion, replacement, removal, and revision of pacemaker leads or device37.7-37.8	119.6	119.3	119.9	*	7.8	94.3	769.9
Shunt or vascular bypass39.0-39.2	67.2	75.7	59.1	*	11.9	121.7	293.5
Hemodialysis39.95	104.0	106.0	102.2	*	52.5	168.1	372.6
Operations on the hemic and lymphatic system40-41	156.3	174.3	139.4	35.5	66.2	234.5	583.3
Operations on the digestive system42-54	2,218.8	1,908.0	2,511.6	401.3	1,342.6	2,997.9	7,455.8
Endoscopy of small intestine with or without biopsy45.11-45.14,45.16	320.9	321.9	320.0	20.1	123.9	431.9	1,405.6
Endoscopy of large intestine with or without biopsy45.21-45.25	229.0	192.6	263.4	*	77.3	272.1	1,111.1
Partial excision of large intestine45.7	87.7	77.7	97.1	*	19.6	121.6	436.3
Appendectomy, excluding incidental47.0	101.8	111.4	92.7	102.5	133.4	61.8	42.6
Cholecystectomy51.2	227.8	136.9	313.4	*	165.8	405.0	581.9
Repair of inguinal hernia53.0-53.1	68.8	127.4	13.6	45.8	26.8	109.0	204.1
Lysis of peritoneal adhesions54.5	135.4	49.4	216.5	*9.3	142.8	161.3	289.5
Operations on the urinary system55-59	621.8	727.4	522.3	85.0	321.2	825.3	2,361.6
Cystoscopy with or without biopsy57.31-57.33	182.6	273.9	96.7	17.2	54.7	221.1	884.7
Operations on the male genital organs60-64	233.2	480.8	...	84.3	33.9	248.5	1,203.3
Prostatectomy60.2-60.6	145.1	299.1	*	145.6	930.0
Operations on the female genital organs65-71	921.3	...	1,789.0	*14.9	1,388.0	953.3	728.4
Oophorectomy and salpingo-oophorectomy65.3-65.6	182.7	...	354.8	*	211.8	321.7	184.2
Bilateral destruction or occlusion of fallopian tubes66.2-66.3	160.1	...	310.9	*	341.7	*	...
Hysterectomy68.3-68.7	218.0	...	423.4	-	275.6	344.7	198.2
Dilation and curettage of uterus69.0	78.0	...	151.6	*	136.0	46.1	43.9
Repair of cystocele and rectocele70.5	55.3	...	107.4	*	34.0	103.6	158.5
Obstetrical procedures72-75	2,740.4	...	5,321.8	43.4	5,846.4	*	...
Episiotomy with or without forceps or vacuum extraction72.1,72.21,72.31,72.71,73.6	672.2	...	1,305.3	*14.0	1,431.9	*	...
Artificial rupture of membranes73.0	309.2	...	600.4	*	659.5	*	...
Cesarean section74.0-74.2,74.4,74.99	372.5	...	723.4	*	795.9	*	...
Fetal EKG (scalp) and fetal monitoring, not otherwise specified75.32,75.34	529.4	...	1,028.1	*	1,129.6	*	...
Repair of current obstetric laceration75.5-75.6	317.3	...	616.1	*	677.3	*	...
Operations on the musculoskeletal system76-84	1,326.3	1,406.7	1,250.6	376.9	1,131.2	1,708.4	3,131.8
Partial excision of bone76.2-76.3,77.6-77.8	86.2	97.6	75.5	17.9	82.3	142.8	136.0
Open reduction of fracture with internal fixation79.3	166.7	158.4	174.6	48.4	124.2	162.3	535.6
Excision or destruction of intervertebral disc80.5	122.2	149.3	96.6	*	138.1	218.3	131.4
Total hip replacement81.51	46.6	41.1	51.8	*	*7.2	65.5	244.5
Total knee replacement81.54	64.0	49.4	77.8	-	*	77.6	382.3
Operations on the integumentary system85-86	528.5	453.8	598.8	135.9	417.3	706.7	1,357.2
Mastectomy85.4	47.2	*	90.9	*	14.8	90.3	184.0
Debridement of wound, infection, or burn86.22,86.28	130.0	149.0	112.1	35.2	91.1	133.0	433.6
Skin graft86.6-86.7	39.5	49.0	30.6	17.2	34.5	48.2	84.0
Miscellaneous diagnostic and therapeutic procedures87-99	5,900.5	5,743.6	6,048.2	1,685.4	2,903.8	8,013.9	21,148.8
Computerized axial tomography87.03,87.41,87.71,88.01,88.38	611.1	601.1	620.5	139.7	316.3	738.4	2,328.5
Pyelogram87.73-87.75	97.8	109.3	86.9	*	79.9	129.9	272.0
Arteriography and angiocardiology using contrast material88.4-88.5	685.8	813.8	565.3	40.3	155.5	1,548.0	2,492.2
Diagnostic ultrasound88.7	635.2	536.2	728.5	133.3	362.7	758.9	2,328.6
Circulatory monitoring89.6	280.5	278.9	282.0	52.0	100.9	356.6	1,226.9
Radioisotope scan92.0-92.1	215.0	187.5	241.0	28.5	89.7	316.3	851.8
Respiratory therapy93.9	484.5	490.1	479.1	356.1	165.2	505.2	1,853.0

¹The rate per 1,000,000 population of discharged patients with a coronary bypass graft was 105.8.

Technical notes

Survey methodology

Source of data

The National Hospital Discharge Survey covers discharges from noninstitutional hospitals, exclusive of Federal, military, and Veterans Administration hospitals, located in the 50 States and the District of Columbia. Only short-stay hospitals (hospitals with an average length of stay for all patients of less than 30 days) or those whose specialty is general (medical or surgical) or children's general are included in the survey. These hospitals must also have six beds or more staffed for patient use.

From 1988 through 1990, the NHDS sampling frame consisted of hospitals that were listed in the April 1987 SMG Hospital Market Tape (3), met the above criteria, and began accepting patients by August 1987. In 1991 the sampling frame was updated to include hospitals from the 1991 SMG Hospital Database Tape (4). For 1991, the sample consisted of 528 hospitals. Of the 528 hospitals, 7 were found to be out of scope (ineligible) because they went out of business or otherwise failed to meet the criteria for the NHDS universe. Of the 521 in-scope (eligible) hospitals, 484 responded to the survey.

Sample design and data collection

The NCHS has conducted the NHDS continuously since 1965. The original sample was selected in 1964 from a frame of short-stay hospitals listed in the National Master Facility Inventory. That sample was updated periodically with samples of hospitals that opened later. Sample hospitals were selected with probabilities ranging from certainty for the largest hospitals to 1 in 40 for the smallest hospitals. Within each sample hospital, a systematic random sample of discharges was selected. A report on the design and development of the original NHDS was published (1).

Beginning in 1988, the NHDS sample includes with certainty all

hospitals with 1,000 beds or more or 40,000 discharges or more annually. The remaining sample of hospitals is based on a stratified three-stage design. The first stage consists of a selection of 112 primary sampling units (PSU's) that comprise a probability subsample of PSU's to be used in the 1985-94 National Health Interview Survey. The second stage consists of a selection of noncertainty hospitals from the sample PSU's. At the third stage, a sample of discharges was selected by a systematic random sampling technique.

Two data collection procedures were used for the survey. The first was a manual system of sample selection and data abstraction. The second was an automated method, used for approximately 33 percent of the respondent hospitals in 1991, that involved the purchase of data tapes from abstracting service organizations, state data systems, or hospitals.

In the manual system, the sample selection and the transcription of information from the hospital records to abstract forms were performed at the hospitals. The completed forms, along with sample selection control sheets, were forwarded to NCHS for coding, editing, and weighting. Of the hospitals using the manual system in 1991, about two-thirds had the work performed by their own medical records staff. In the remaining hospitals using the manual system, personnel of the U.S. Bureau of the Census did the work on behalf of NCHS.

For the automated system, NCHS purchased tapes containing machine-readable medical record data that were systematically sampled by NCHS.

The medical abstract form and the automated data tapes contain items relating to the personal characteristics of the patient, including birth date, sex, race, and marital status but not name and address; administrative information, including admission and discharge dates, discharge status, and medical record number; and medical information, including diagnoses and

surgical and nonsurgical operations or procedures. Since 1977, patient ZIP Code, expected source of payment, and dates of surgery have also been collected. (The medical record number and patient ZIP Code are confidential information and are not available to the public.)

Presentation of estimates

The relative standard error of the estimate and the number of sample records on which the estimate is based (referred to as the sample size) are used to identify estimates with relatively low reliability.

Because of the complex sample design of the NHDS, estimates of less than 5,000 are not presented; only an asterisk (*) appears in the tables. These estimates generally have a relative standard error of more than 30 percent or are based on a sample of less than 30 cases. Estimates of 5,000 to 9,000 are preceded by an asterisk (*) to indicate that they should not be assumed to be reliable. These estimates are generally based on less than 60 cases.

Sampling errors and rounding of numbers

The standard error is primarily a measure of sampling variability that occurs by chance because only a sample rather than the entire universe is surveyed. The relative standard error of the estimate is obtained by dividing the standard error by the estimate itself and is expressed as a percent of the estimate. The resulting value is multiplied by 100, so the relative standard error is expressed as a percent of the estimate.

Estimates of sampling variability were calculated with SESUDAAN software, which 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).

The constants for relative standard error curves for the National

Hospital Discharge Survey are presented in table I. The constants for 1990 are shown because 1991 constants were not available at the time of publication and little difference is expected in the constants for the 2 years. The relative standard error [RSE(X)] of an estimate X may be estimated from the formula:

$$RSE(X) = 100 (\sqrt{a + b/X})$$

where X , a , and b are as defined in table I.

Estimates have been rounded to the nearest thousand. For this reason, figures within tables do not always add to the totals. Rates and average lengths of stay were calculated from original, unrounded figures and will not necessarily agree precisely with rates or average lengths of stay calculated from rounded data.

Tests of significance

In this report, statistical inference is based on the two-sided test with a critical value of 1.96 (0.05 level of significance). Terms such as "higher" and "less" indicate that differences are statistically significant. Terms such as "similar" or "no difference" mean that no statistically significant difference exists between the estimates being compared. A lack of comment on the difference between any two estimates does not mean that the difference was tested and found not to be significant.

Terms relating to hospitalization

Hospitals—All hospitals with an average length of stay for all patients of less than 30 days or hospitals whose specialty is general (medical or surgical) or children's general are eligible for inclusion in the National Hospital Discharge Survey, except Federal hospitals, hospital units of institutions, and hospitals with less than six beds staffed for patients' use.

Patient—A person who is formally admitted to the inpatient service of a short-stay hospital for observation, care, diagnosis, or treatment. The terms "patient" and "inpatient" are used synonymously.

Newborn infant—A patient admitted by birth to a hospital.

Discharge—The formal release of a patient by a hospital; that is, the termination of a period of hospitalization by death or by disposition to place of residence, nursing home, or another hospital. The terms "discharges" and "patients discharged" are used synonymously.

Discharge rate—The ratio of the number of hospital discharges during a year to the number of persons in the civilian population on July 1 of that year.

Days of care—The number of patient days accumulated at time of discharge by a patient. A stay of less than 1 day (patient admission and discharge on the same day) is

counted as 1 day in the summation of total days of care. For patients admitted and discharged on different days, the number of days of care is computed by counting all days from (and including) the date of admission to (but not including) the date of discharge.

Average length of stay—The number of days of care accumulated by patients discharged during the year divided by the number of these patients.

Terms relating to diagnoses

Diagnosis—A disease or injury (or factor that influences health status and contact with health services that is not itself a current illness or injury) on the medical record of a patient.

Principal diagnosis—The condition established after study to be chiefly responsible for occasioning the admission of the patient to the hospital for care.

First-listed diagnosis—The coded diagnosis identified as the principal diagnosis or listed first on the face sheet or discharge summary of the medical record if the principal diagnosis cannot be identified. The number of first-listed diagnoses is equivalent to the number of discharges.

Terms relating to procedures

Procedure—A surgical or nonsurgical operation, diagnostic procedure, or special treatment reported on the medical record of a patient. Beginning with the 1991 data, all ICD-9-CM procedure codes are used in the NHDS. Previously selected codes, primarily codes for miscellaneous diagnostic and therapeutic procedures, were not used.

All-listed procedures—The number of procedures on the face sheet of the medical record. In the NHDS a maximum of four procedures are coded.

Rate of procedures—The ratio of the number of procedures during a year to the number of persons in the civilian population on July 1 of that year determines the rate of procedures.

Table I. Estimated parameters for relative standard error equations for National Hospital Discharge Survey statistics, by sex, age, and geographic region: United States, 1990

Characteristic	Number of discharges or first-listed diagnoses		Number of procedures	
	a	b	a	b
Total	0.00213	228.834	0.00547	92.597
Sex				
Male	0.00152	313.079	0.00410	89.724
Female	0.00125	311.632	0.00337	83.021
Age				
Under 15 years	0.01597	47.116	0.03171	44.124
15-44 years	0.00142	299.762	0.00302	139.070
45-64 years	0.00157	234.543	0.00491	68.024
65 years and over	0.00161	263.223	0.00436	47.886
Region				
Northeast	0.00274	56.268	0.00588	108.765
Midwest	0.00487	183.531	0.00886	107.681
South	0.00375	343.892	0.00781	50.919
West	0.00564	318.914	0.01235	144.582

Demographic terms

Population—The U.S. resident population excluding members of the Armed Forces.

Age—Patient's age at birthday prior to admission to the hospital.

Geographic region—Hospitals are classified by location in one of the four geographic regions of the United States that correspond to those used by the U.S. Bureau of the Census.

<i>Region</i>	<i>States included</i>
Northeast . . .	Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania
Midwest	Michigan, Ohio, Illinois, Indiana, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, and Kansas
South	Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma, and Texas
West	Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Washington, Oregon, California, Hawaii, and Alaska

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 (see Technical notes)
#	Figure suppressed to comply with confidentiality requirements

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National Center for Health Statistics

Director
Manning Feinleib, M.D., Dr. P.H.
Acting Deputy Director
Jack R. Anderson

U.S. DEPARTMENT OF HEALTH AND
HUMAN SERVICES
Public Health Service
Centers for Disease Control and Prevention
National Center for Health Statistics
6525 Belcrest Road
Hyattsville, Maryland 20782

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