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This report presents statistics on the utilization of non-Federal short-stay hospitals based on data collected through the National Hospital Discharge Survey from a national sample of hospital records of discharged inpatients. Estimates are provided by the demographic characteristics of patients discharged, geographic region of hospitals, conditions diagnosed, and surgical and nonsurgical procedures performed. Measurements of hospital use include frequency, rate, percent of discharges and days of care, and average length of stay.

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Cooperation of the U.S. Bureau of the Census

Under the legislation establishing the National Health Survey, the Public Health Service is authorized to use, insofar as possible, the services or facilities of other Federal, State, or private agencies.

In accordance with specifications established by the National Center for Health Statistics, the U.S. Bureau of the Census, under a contractual arrangement, participated in planning the survey and collecting the data.

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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
 - # Figure suppressed to comply with confidentiality requirements
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National Hospital Discharge Survey

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Introduction

This report provides national estimates of the use of non-Federal short-stay hospitals during 1989. Detailed tables provide data for selected demographic characteristics of discharged patients, the geographic region of the hospital where patients were treated, conditions diagnosed, and surgical and nonsurgical procedures performed. Text tables provide information on special topics including trends, the elderly, patients with human immunodeficiency virus (HIV) diagnoses, hospital deaths, and newborn infants.

The statistics 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. The data for the survey come from a sample of inpatient records that are obtained from a national sample of non-Federal general and short-stay specialty hospitals located in the United States. Approximately 233,000 medical records from 408 participating hospitals were included in the 1989 survey.

The original universe for the survey consisted of 6,965 short-stay hospitals contained in the 1963 National Master Facility Inventory of Hospitals. The universe was updated periodically from lists of hospitals provided by the American Hospital Association. A description of the development and design of the original NHDS, which was in operation from 1965 through 1987, has been published (1).

Beginning in 1988, the NHDS was redesigned in order to link it with other surveys conducted by NCHS and to improve efficiency through the use of information and technologies that were not available when the survey was first designed in 1964. Differences between NHDS statistics based on the 1965–87 sample and statistics based on the new sample may be due to sample design rather than to real changes in hospital use patterns.

The redesigned survey is based on a new three-stage stratified sample that comes from hospitals contained in the April 1987 SMG Hospital Market Data Tape (2). Only hospitals accepting inpatients by August 1987 were included. The definition of hospitals in the NHDS was modified slightly in the redesign. Prior to 1988, hospitals with an average length of stay of 30 days or more were excluded. Beginning in 1988, general medical and surgical and children's general hospitals were included regardless

of the overall average length of stay of the inpatient population. However, the term "short-stay" will continue to be used because 98 percent of hospitals in the NHDS universe fall into this category. A description of the new design, data collection procedures, and estimation process can be found in appendix I.

Types of measurements shown are frequencies, rates, and percent distributions of discharges and days of care, and average lengths of stay. The estimates are presented by age, sex, race, and expected source of payment of the patients discharged, and by geographic region of the hospitals (tables 1–4). Statistics on women with deliveries (table 5), conditions diagnosed (tables 6–9), and procedures performed (tables 10–16) are also shown by patient and hospital characteristics. Data for newborn infants are included only in the section titled "Newborn infants." Because these data are based on a sample, they may not agree with data on births published in *Vital Statistics of the United States*.

Medical data for hospitalized patients are coded according to the *International Classification of Diseases, 9th Revision, Clinical Modification*, or ICD–9–CM (3). A maximum of seven diagnoses and four procedures may be coded for each medical record in the sample. Although diagnoses included in the ICD–9–CM section titled "Supplementary classification of external causes of injury and poisoning" (coded E800–E999) are collected in the NHDS, these diagnoses are excluded from the report. The conditions diagnosed and procedures performed are presented by major diagnostic and procedure groups of the ICD–9–CM. Within these groups, some specific categories were selected for presentation because of large frequencies or because they are of special interest. More detailed data are presented in other reports in Series 13 of the *Vital and Health Statistics* reports.

Familiarity with the definitions used in NHDS is important for interpreting the data and for making comparisons with statistical data on short-stay hospital utilization that are available from other sources. Definitions of the terms used in this report are presented in appendix II.

Information on short-stay hospital utilization is also collected through the National Health Interview Survey (NHIS), conducted by NCHS. Estimates from this survey generally differ from those from NHDS because of differences in data collection procedures, populations sampled, and definitions. Data from the NHIS are published in Series 10 of the *Vital and Health Statistics* reports.

Highlights

- During 1989, an estimated 30.9 million patients, excluding newborn infants, were discharged from non-Federal short-stay hospitals. These patients used an estimated 200.8 million days of care.
- The number of discharges has decreased by 20 percent since 1983 and the number of days of care has decreased by 28 percent since 1981.
- The average length of stay has gradually declined from 7.8 days in 1965 to 6.5 days in 1989.
- Of all patients discharged from short-stay hospitals, 18 percent were 75 years of age and over.
- Private insurance was the expected principal source of payment for 39 percent of patients discharged during 1989.
- Deliveries and heart disease were leading causes of hospitalization during 1989. These two diagnoses accounted for 3.9 and 3.5 million discharges, respectively, and together made up 24 percent of all first-listed diagnoses.
- Approximately 21 percent of patients 65 years of age and over discharged from short-stay hospitals had been admitted for heart disease.
- At least one procedure was performed on 65 percent of patients discharged from short-stay hospitals in 1989.
- Four obstetrical procedures (episiotomy, cesarean section, repair of current obstetric laceration, and artificial rupture of membranes) accounted for 17 percent of the surgical procedures performed on hospital inpatients.
- Four nonsurgical procedures were performed more than 1 million times: arteriography and angiocardio-graphy using contrast material (1.6 million), diagnostic ultrasound (1.6 million), computerized axial tomography (1.5 million), and fetal EKG and fetal monitoring (1.2 million).
- Approximately 13 percent of all surgical procedures and 20 percent of all nonsurgical procedures were performed on patients 75 years of age and over.
- In 1984, 10,000 patients with HIV diagnoses were discharged from short-stay hospitals. By 1989, this number had increased to 140,000.
- From 1984–89, 86.7 percent of patients with HIV diagnoses were male and 77.2 percent were 25–44 years of age.
- In 1989, 2.9 percent of patients discharged from short-stay hospitals were discharged dead.
- Approximately 17 percent of hospitalized patients had first-listed diagnoses of heart disease or malignant neoplasm, but 39 percent of the deaths that occurred in short-stay hospitals were the result of either of these two diseases.

Trends

In 1989 an estimated 30,947,000 inpatients were discharged from short-stay hospitals (table A). These patients used a total of 200,827,000 days of care and had an average length of stay of 6.5 days. The number and rate of discharges and days of care for short-stay hospitals generally increased from 1965 through the 1970's, but declined during the 1980's. From 1983 to 1989, the number of discharges decreased by 20 percent. The number of days of care decreased 28 percent from 1981 to 1989. The

average length of stay has gradually declined since 1965. The 1989 average stay was 1.3 days (17 percent) shorter than the average stay in 1965.

Hospital use measures are shown by age for 1987, 1988, and 1989 in table B. Comparisons of these data should take into account the 1988 redesign of the survey, which is discussed in appendix I. Differences between 1987 estimates and estimates for 1988 and 1989 may be due to changes in the survey design.

Table A. Selected measures of short-stay hospital utilization: United States, selected years 1965–89

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

<i>Measure of utilization</i>	1965	1970	1975	1980	1985	1989
Number of patients discharged in thousands	28,792	29,127	34,043	37,832	35,056	30,947
Rate of patient discharges per 1,000 population.	150.3	144.3	159.2	167.7	147.9	125.5
Number of days of care in thousands	225,011	226,445	262,389	274,508	226,217	200,827
Rate of days of care per 1,000 population	1,174.3	1,121.6	1,227.3	1,217.0	954.4	814.5
Average length of stay in days	7.8	7.8	7.7	7.3	6.5	6.5

Table B. Number and rate of patients discharged from short-stay hospitals and of days of care, and average length of stay, by age: United States, 1987, 1988, and 1989

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

<i>Age</i>	<i>1987</i>	<i>1988</i>	<i>1989</i>
Number of patients discharged in thousands			
All ages	33,387	31,146	30,947
Under 15 years	2,688	2,610	2,597
15-44 years	13,142	11,934	11,848
45-64 years	7,099	6,456	6,271
65 years and over	10,459	10,146	10,230
65-74 years	4,963	4,703	4,678
75 years and over	5,496	5,443	5,552
Rate of patient discharges per 1,000 population			
All ages	138.2	127.6	125.5
Under 15 years	51.3	49.2	48.2
15-44 years	115.1	104.0	102.8
45-64 years	156.9	140.5	135.0
65 years and over	350.5	334.1	330.2
65-74 years	280.9	262.8	257.3
75 years and over	451.6	436.5	433.6
Number of days of care in thousands			
All ages	214,942	203,678	200,827
Under 15 years	12,609	13,028	12,632
15-44 years	63,576	56,558	55,420
45-64 years	48,360	43,901	41,979
65 years and over	90,397	90,191	90,795
65-74 years	40,534	39,638	38,464
75 years and over	49,862	50,553	52,331
Rate of days of care per 1,000 population			
All ages	889.4	834.3	814.5
Under 15 years	240.6	245.3	234.3
15-44 years	556.9	493.1	481.1
45-64 years	1,068.6	955.3	903.7
65 years and over	3,029.9	2,970.0	2,930.4
65-74 years	2,294.4	2,214.8	2,115.5
75 years and over	4,097.8	4,054.3	4,087.4
Average length of stay in days			
All ages	6.4	6.5	6.5
Under 15 years	4.7	5.0	4.9
15-44 years	4.8	4.7	4.7
45-64 years	6.8	6.8	6.7
65 years and over	8.6	8.9	8.9
65-74 years	8.2	8.4	8.2
75 years and over	9.1	9.3	9.4

Diagnoses

Hospital use measures are presented for selected first-listed diagnostic categories in table C. The categories shown accounted for more than half of the discharges and days of care in short-stay hospitals in 1989. An estimated 3,937,000 patients discharged were females hospitalized for deliveries. Females with deliveries made up 12.7 percent of all discharges in 1989, but because of their short average length of stay (2.9 days), they used only 5.7 percent of inpatient days of care.

Patients with first-listed diagnoses of heart disease accounted for 3,534,000 discharges, which was 11.4 percent of total discharges. These patients had an average length of stay of 7.0 days and used 12.3 percent of total days of care. Acute myocardial infarction, coronary atherosclerosis, and other ischemic heart disease were the first-listed diagnoses for 56 percent of the heart disease discharges. Other major heart disease diagnoses were congestive heart failure and cardiac dysrhythmia.

Malignant neoplasms were the first-listed diagnoses for 1,608,000 patients discharged or 5.2 percent of total discharges. The average length of stay for patients discharged with malignant neoplasms was 9.2 days in 1989; they used 7.4 percent of the total days of care. Specific malignant neoplasms that frequently led to hospitalization included malignant neoplasm of trachea, bronchus, and lung; malignant neoplasm of large intestine and rectum; and malignant neoplasm of breast.

Two additional diagnostic categories, pneumonia and fractures, each accounted for more than 1 million discharges; two other categories, cerebrovascular disease and psychosis, each made up more than half a million discharges. These four diagnostic categories each accounted for more than 8 million days of care in 1989. Patients with first-listed diagnoses of psychosis had a particularly long average length of stay (14.5 days) and they used 5.6 percent of total days of care.

Selected diagnoses for patients 65 years of age and over are shown in table D. Heart disease was the first-listed diagnosis for an estimated 2,177,000 patients 65 years of age and over, which was 21 percent of the

discharges of this age group. Acute myocardial infarction, coronary atherosclerosis, and other ischemic heart disease accounted for 59 percent of the heart disease discharges for patients 65–74 years of age, 43 percent for patients 75 years of age and over. Congestive heart failure was the diagnosis for 29 percent of heart disease discharges for patients 75 years of age and over, and for 17 percent of those 65–74 years of age.

Patients 65 years of age and over with first-listed diagnoses of malignant neoplasm made up 9 percent of discharges for patients 65 years of age and over in 1989. Malignant neoplasm of trachea, bronchus, and lung and malignant neoplasm of large intestine and rectum were important causes of hospitalization for this age group. Cerebrovascular disease was the first-listed diagnosis for 6 percent of patients 65 years of age and over, pneumonia for 5 percent, and fractures for 4 percent. The other diagnostic categories shown in table D accounted for a combined total of 8 percent of the discharges of patients 65 years of age and over.

The discharge rate for patients 75 years of age and over was 4,336.3 per 10,000 population. This was 69 percent higher than the rate of 2,572.8 per 10,000 population for patients 65–74 years of age. However, patients 75 years of age and over did not have higher discharge rates for all the diagnostic categories. The discharge rate per 10,000 population for coronary atherosclerosis was 78.5 for patients 65–74 years of age compared with 42.4 for those 75 years of age and over. Patients 65–74 years of age had a discharge rate of 49.7 per 10,000 population for malignant neoplasm of trachea, bronchus, and lung; but the rate was 28.5 for patients 75 years of age and over.

The average length of stay for patients 65 years of age and over was 8.9 days in 1989. Among the conditions shown in table D, average stays ranged from 5.5 days for hyperplasia of prostate to 14.2 days for malignant neoplasm of large intestine and rectum. Patients 65 years of age and over also had average lengths of stay greater than 10 days for fractures, arthropathies and related disorders, and cerebrovascular disease.

Table C. Number and rate of patients discharged from short-stay hospitals and of days of care, and average length of stay, by selected first-listed diagnostic categories: United States, 1989

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

Diagnostic category and ICD-9-CM code	Patients discharged		Days of care		Average length of stay in days
	Number in thousands	Rate per 10,000 population	Number in thousands	Rate per 10,000 population	
All conditions ¹	30,947	1,255.2	200,827	8,145.4	6.5
Females with deliveries	3,937	159.7	11,468	465.1	2.9
Heart disease	3,534	143.3	24,706	1,002.1	7.0
Acute myocardial infarction	695	28.2	5,947	241.2	8.6
Coronary atherosclerosis	407	16.5	2,521	102.2	6.2
Other ischemic heart disease	893	36.2	4,661	189.0	5.2
Cardiac dysrhythmias	487	19.7	2,805	113.8	5.8
Congestive heart failure	643	26.1	5,387	218.5	8.4
Malignant neoplasms	1,608	65.2	14,843	602.0	9.2
Malignant neoplasm of large intestine and rectum	167	6.8	2,337	94.8	14.0
Malignant neoplasm of trachea, bronchus, and lung	239	9.7	2,068	83.9	8.6
Malignant neoplasm of breast	163	6.6	882	35.8	5.4
Pneumonia	1,033	41.9	8,343	338.4	8.1
Fractures	1,021	41.4	8,691	352.5	8.5
Cerebrovascular disease	795	32.3	8,130	329.8	10.2
Psychosis	773	31.3	11,194	454.0	14.5
Cholelithiasis	482	19.6	3,055	123.9	6.3
Asthma	475	19.3	2,130	86.4	4.5
Acute respiratory infections, except influenza	475	19.3	2,341	94.9	4.9
Diabetes mellitus	438	17.8	3,308	134.2	7.6
Arthropathies and related disorders	431	17.5	3,321	134.7	7.7
Intervertebral disc disorders	396	16.1	2,149	87.2	5.4
Benign neoplasms and neoplasms of uncertain behavior and unspecified nature	392	15.9	1,849	75.0	4.7
Noninfectious enteritis and colitis	351	14.2	1,795	72.8	5.1
Diseases of the central nervous system	341	13.8	2,937	119.1	8.6

¹Includes data for diagnostic conditions not shown in table.

Table D. Number and rate of patients 65 years of age and over discharged from short-stay hospitals, and average length of stay, by age and selected first-listed diagnostic categories: United States, 1989

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

<i>Diagnostic category and ICD-9-CM code</i>	<i>65 years and over</i>	<i>65-74 years</i>	<i>75 years and over</i>
	Patients discharged in thousands		
All conditions ¹	10,230	4,678	5,552
Heart disease391-392.0,393-398,402,404,410-416,420-429	2,177	1,027	1,150
Acute myocardial infarction410	408	198	210
Coronary atherosclerosis414.0	197	143	54
Other ischemic heart disease.411-413,414.1-414.9	503	269	234
Cardiac dysrhythmias427	338	143	195
Congestive heart failure428.0	505	170	335
Malignant neoplasms140-208, 230-234	878	479	398
Malignant neoplasm of large intestine and rectum.153-154, 197.5	117	50	67
Malignant neoplasm of trachea, bronchus, and lung162,197.0,197.3	127	90	36
Cerebrovascular disease430-438	607	231	376
Pneumonia.480-486	532	176	356
Fractures800-829	412	119	293
Disorders of fluid, electrolyte, and acid-base balance.276	235	76	159
Hyperplasia of prostate600	193	110	83
Urinary tract infection, site unspecified599.0	190	48	141
Arthropathies and related disorders710-719	184	100	85
	Discharge rate per 10,000 population		
All conditions ¹	3,301.6	2,572.8	4,336.3
Heart disease391-392.0,393-398,402,404,410-416,420-429	702.6	565.0	897.9
Acute myocardial infarction410	131.6	108.9	163.8
Coronary atherosclerosis414.0	63.5	78.5	42.4
Other ischemic heart disease.411-413,414.1-414.9	162.4	147.9	183.0
Cardiac dysrhythmias427	109.2	78.7	152.4
Congestive heart failure428.0	162.9	93.2	261.8
Malignant neoplasms140-208, 230-234	283.3	263.6	311.2
Malignant neoplasm of large intestine and rectum.153-154, 197.5	37.8	27.6	52.3
Malignant neoplasm of trachea, bronchus, and lung162,197.0,197.3	40.9	49.7	28.5
Cerebrovascular disease430-438	195.8	127.0	293.5
Pneumonia.480-486	171.8	96.7	278.4
Fractures800-829	133.0	65.5	228.8
Disorders of fluid, electrolyte, and acid-base balance.276	75.7	41.7	124.1
Hyperplasia of prostate600	62.4	60.7	64.9
Urinary tract infection, site unspecified599.0	61.2	26.5	110.3
Arthropathies and related disorders710-719	59.5	54.9	66.0
	Average length of stay in days		
All conditions ¹	8.9	8.2	9.4
Heart disease391-392.0,393-398,402,404,410-416,420-429	7.7	7.6	7.8
Acute myocardial infarction410	9.5	9.9	9.0
Coronary atherosclerosis414.0	7.5	7.2	8.3
Other ischemic heart disease.411-413,414.1-414.9	5.7	5.6	5.9
Cardiac dysrhythmias427	6.4	5.9	6.9
Congestive heart failure428.0	8.7	8.7	8.6
Malignant neoplasms140-208, 230-234	10.0	9.2	11.0
Malignant neoplasm of large intestine and rectum.153-154, 197.5	14.2	12.1	15.8
Malignant neoplasm of trachea, bronchus, and lung162,197.0,197.3	8.8	8.3	9.9
Cerebrovascular disease430-438	10.5	10.8	10.4
Pneumonia.480-486	9.6	8.6	10.1
Fractures800-829	11.6	9.8	12.4
Disorders of fluid, electrolyte, and acid-base balance.276	8.1	7.3	8.5
Hyperplasia of prostate600	5.5	4.8	6.5
Urinary tract infection, site unspecified599.0	9.6	8.5	9.9
Arthropathies and related disorders710-719	10.6	10.4	11.0

¹Includes diagnostic conditions not shown in table.

Procedures

One or more surgical, diagnostic, or therapeutic procedures were performed on an estimated 20,106,000 inpatients discharged from short-stay hospitals in 1989, which was 65 percent of all discharges (table E). At least one surgical procedure was reported for 14,690,000 patients discharged, or 47.5 percent of all discharges. The classification of procedures as surgical or nonsurgical was revised for 1989 data. See appendix II for a list of the procedures classified as nonsurgical.

The proportion of patients with surgical procedures ranged from 29.7 percent of children under 15 years of age to 57.9 percent of patients 15–44 years of age, who have many procedures related to childbirth. At least one surgical procedure was performed on 50.2 percent of females and 43.5 percent of males. The proportion of white pa-

tients with a surgical procedure was 47.6 percent, compared with 41.0 percent of black patients.

An estimated total of 23,370,000 surgical procedures were performed for inpatients who had surgery (table F). When multiple procedures were performed on an individual patient, the procedures were usually classified in different procedure categories. However, coronary artery bypass graft (CABG, ICD–9–CM code 36.1) can be an exception. A physician may perform more than one CABG procedure during a single operation. In 1989, a total of 368,000 CABG procedures were performed on 260,000 patients discharged. Data users should not equate the number of CABG procedures with the number of patients having the procedure.

Table E. Number of patients discharged from short-stay hospitals with and without procedures and percent with procedures, by selected characteristics: United States, 1989

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

Characteristic	All discharged patients	Patients without procedures	Patients with procedures			
			All patients with procedures	Patients with surgical procedures	All patients with procedures	Patients with surgical procedures
	Number in thousands		Percent			
All patients	30,947	10,840	20,106	14,690	65.0	47.5
Age						
Under 15 years	2,597	1,330	1,268	771	48.8	29.7
15–44 years	11,848	3,436	8,412	6,856	71.0	57.9
45–64 years	6,271	2,061	4,210	2,971	67.1	47.4
65 years and over.	10,230	4,013	6,216	4,093	60.8	40.0
Sex						
Male	12,583	4,718	7,865	5,471	62.5	43.5
Female	18,364	6,122	12,242	9,219	66.7	50.2
Race						
White	22,678	8,007	14,670	10,798	64.7	47.6
Black.	3,891	1,510	2,381	1,596	61.2	41.0
All other.	976	237	740	544	75.8	55.7
Not stated	3,402	1,086	2,316	1,752	68.1	51.5
Region						
Northeast	7,044	2,092	4,952	3,474	70.3	49.3
Midwest	7,676	2,993	4,683	3,508	61.0	45.7
South	10,960	4,353	6,606	5,008	60.3	45.7
West	5,268	1,402	3,866	2,700	73.4	51.3

NOTE: See appendix II for definition of surgical procedures. The classification of procedures as surgical or nonsurgical was revised for 1989 data.

Table F. Number and rate of all-listed surgical procedures for patients discharged from short-stay hospitals, by selected surgical categories: United States, 1989

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

<i>Procedure category and ICD-9-CM code</i>	<i>Number in thousands</i>	<i>Rate per 100,000 population</i>
Surgical procedures ¹	23,370	9,478.8
Episiotomy with or without forceps or vacuum extraction72.1, 72.21, 72.31, 72.71, 73.6	1,704	691.0
Cardiac catheterization37.21-37.23	958	388.4
Cesarean section.74.0-74.2, 74.4, 74.99	938	380.4
Repair of current obstetric laceration75.5-75.6	762	309.1
Artificial rupture of membranes.73.0	654	265.1
Excision or destruction of lesion or tissue of skin or subcutaneous tissue86.2-86.4	542	219.7
Hysterectomy68.3-68.7	541	219.3
Arthroplasty and repair of joints.81.3-81.8	534	216.7
Cholecystectomy51.2	504	204.2
Open reduction of fracture, except jaw76.79, 79.2-79.3, 79.5-79.6	479	194.2
Puncture of vessel38.9	469	190.1
Oophorectomy and salpingo-oophorectomy65.3-65.6	421	170.6
Bilateral destruction or occlusion of fallopian tubes.66.2-66.3	389	157.6
Prostatectomy.60.2-60.6	376	152.6
Coronary artery bypass graft36.1	368	149.3
Excision or destruction of intervertebral disc and spinal fusion80.5, 81.0	355	144.1
Division of peritoneal adhesions.54.5	329	133.4
Operations on muscles, tendons, fascia, and bursa82-83.1, 83.3-83.9	312	126.3

¹Includes data for surgical conditions not shown in table. See appendix II for ICD-9-CM codes included. The classification of procedures as surgical or nonsurgical was revised for 1989 data.

Table G. Number and rate of all-listed nonsurgical procedures for patients discharged from short-stay hospitals, by selected nonsurgical categories: United States, 1989

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

<i>Procedure category and ICD-9-CM code</i>	<i>Number in thousands</i>	<i>Rate per 100,000 population</i>
Nonsurgical procedures ¹	16,672	6,762.2
Arteriography and angiocardiography using contrast material88.4-88.5	1,620	657.2
Diagnostic ultrasound88.7	1,558	632.0
Computerized axial tomography.87.03, 87.41, 87.71, 88.01, 88.38	1,519	616.0
Fetal EKG and fetal monitoring75.32, 75.34	1,206	489.2
Respiratory therapy.93.9	927	376.0
Circulatory monitoring89.6	779	316.1
Electrographic monitoring89.54	692	280.7
Manual assisted delivery73.5	641	259.9
Radioisotope scan92.0-92.1	635	257.0
Endoscopy of small intestine (excludes that with biopsy)45.11-45.13	547	221.8
Injection or infusion of cancer chemotherapeutic substance.99.25	493	200.0
Cystoscopy of bladder.57.31-57.32	487	197.5
Colonoscopy and sigmoidoscopy45.23-45.24	409	166.0
Spinal tap03.31	377	153.1
Biliary tract x-ray.87.5	321	130.3

¹Includes data for nonsurgical procedures not shown in table. See appendix II for ICD-9-CM codes included. The classification of procedures as surgical or nonsurgical was revised for 1989 data.

Four obstetrical procedures accounted for 17 percent of all surgical procedures performed in 1989: episiotomy, cesarean section, repair of current obstetric laceration, and artificial rupture of membranes. The rate per 100 deliveries was 23.8 for cesarean section and 16.6 for artificial rupture of membranes. There were 56.8 episiotomies and 25.4 repairs of current obstetric lacerations per 100 vaginal deliveries.

The cardiovascular procedures of cardiac catheterization, puncture of vessel, and coronary artery bypass graft together accounted for 8 percent of all surgical procedures on hospital inpatients. Four types of operations on the musculoskeletal system and connective tissue together made up 7 percent of all surgical procedures. These procedures were arthroplasty and repair of joints, open reduction of fracture, excision or destruction of interver-

Table H. Number and rate of all-listed surgical procedures for patients 65 years of age and over discharged from short-stay hospitals, by age and selected procedure categories: United States, 1989

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

Procedure category and ICD-9-CM code	65 years and over	65-74 years	75 years and over
		Number in thousands	
Surgical procedures ¹	6,736	3,622	3,114
Cardiac catheterization37.21-37.23	414	306	108
Prostatectomy60.2-60.6	304	162	143
Pacemaker insertion, replacement, removal, and repair37.7-37.8	221	78	143
Puncture of vessel38.9	206	102	104
Coronary artery bypass graft36.1	191	144	46
Excision or destruction of lesion or tissue of skin or subcutaneous tissue86.2-86.4	180	85	95
Open reduction of fracture, except jaw76.79, 79.2-79.3, 79.5-79.6	178	56	121
Cholecystectomy51.2	160	91	69
Resection of intestine45.6-45.8	159	77	82
		Rate per 100,000 population	
Surgical procedures ¹	21,739.8	19,921.0	24,320.9
Cardiac catheterization37.21-37.23	1,337.4	1,684.4	844.4
Prostatectomy60.2-60.6	982.7	888.5	1,116.4
Pacemaker insertion, replacement, removal, and repair37.7-37.8	712.3	427.4	1,116.9
Puncture of vessel38.9	664.4	562.0	809.8
Coronary artery bypass graft36.1	615.2	793.0	362.6
Excision or destruction of lesion or tissue of skin or subcutaneous tissue86.2-86.4	580.3	467.3	740.8
Open reduction of fracture, except jaw76.79, 79.2-79.3, 79.5-79.6	573.8	310.7	947.5
Cholecystectomy51.2	516.4	500.5	539.0
Resection of intestine45.6-45.8	514.1	423.0	643.5

¹Includes procedures not shown in table. See appendix II for ICD-9-CM codes included. The classification of procedures as surgical or nonsurgical was revised for 1989 data.

Table J. Number and rate of all-listed nonsurgical procedures for patients 65 years of age and over discharged from short-stay hospitals, by age and selected procedure categories: United States, 1989

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

Procedure category and ICD-9-CM code	65 years and over	65-74 years	75 years and over
		Number in thousands	
Nonsurgical procedures ¹	6,487	3,124	3,363
Computerized axial tomography87.03,87.41,87.71,88.01,88.38	727	295	432
Arteriography and angiocardiography using contrast material.88.4-88.5	721	515	206
Diagnostic ultrasound88.7	633	276	357
Respiratory therapy93.9	442	191	251
Circulatory monitoring89.6	430	192	238
Electrographic monitoring89.54	410	167	243
Radioisotope scan92.0-92.1	310	143	166
Endoscopy of small intestine (excludes that with biopsy)45.11-45.13	293	134	160
Colonscopy and sigmoidoscopy45.23-45.24	247	98	149
		Rate per 100,000 population	
Nonsurgical procedures ¹	20,937.3	17,180.3	26,271.0
Computerized axial tomography87.03,87.41,87.71,88.01,88.38	2,346.6	1,624.2	3,372.4
Arteriography and angiocardiography using contrast material.88.4-88.5	2,326.7	2,834.3	1,605.6
Diagnostic ultrasound88.7	2,044.4	1,519.2	2,790.2
Respiratory therapy93.9	1,425.8	1,047.9	1,962.5
Circulatory monitoring89.6	1,387.4	1,055.0	1,859.2
Electrographic monitoring89.54	1,324.9	920.6	1,898.8
Radioisotope scan92.0-92.1	999.1	788.8	1,297.6
Endoscopy of small intestine (excludes that with biopsy)45.11-45.13	947.1	735.8	1,247.2
Colonscopy and sigmoidoscopy45.23-45.24	798.2	540.4	1,164.4

¹Includes procedures not shown in table. See appendix II for ICD-9-CM codes included. The classification of procedures as surgical or nonsurgical was revised for 1989 data.

tebral disc and spinal fusion, and operations on muscles, tendons, fascia, and bursa. The operations on the female genital system of hysterectomy, oophorectomy and salpingo-oophorectomy, and bilateral destruction or occlusion of fallopian tubes combined were 6 percent of all surgical procedures.

Inpatients discharged from short-stay hospitals had an estimated 16,672,000 nonsurgical procedures in 1989 (table G). Arteriography and angiocardiology using contrast material accounted for almost 10 percent of nonsurgical procedures. Diagnostic ultrasound and computerized axial tomography (CAT scan) each made up 9 percent of nonsurgical procedures. Fetal EKG and fetal monitoring accounted for 7 percent of nonsurgical procedures and was performed at the rate of 30.6 per 100 deliveries.

An estimated 6,736,000 surgical procedures were performed on hospital inpatients 65 years of age and over in 1989 (table H). Four cardiovascular procedures accounted for 15 percent of the surgical procedures on the elderly. These four procedures were cardiac catheterization; pacemaker insertion, replacement, removal, and repair; puncture of vessel; and coronary artery bypass graft. Prostatectomy made up an additional 5 percent of the surgical procedures for persons 65 years of age and over.

The rate of surgical procedures per 100,000 population was generally higher for persons 75 years of age and

over than for those 65–74 years of age. However, the rate per 100,000 population for cardiac catheterization was 1,684.4 for persons 65–74 years of age, compared with 844.4 for those 75 years of age and over. Coronary artery bypass graft was performed at the rate of 793.0 per 100,000 population for the 65–74 year age group but at the rate of 362.6 per 100,000 population for persons 75 years of age and over.

The estimated number of nonsurgical procedures for patients 65 years of age and over was 6,487,000 in 1989 (table J). Computerized axial tomography and arteriography and angiocardiology using contrast material each accounted for 11 percent of the nonsurgical procedures performed on the elderly. Diagnostic ultrasound made up 10 percent of nonsurgical procedures on the elderly, respiratory therapy and circulatory monitoring each made up 7 percent, and 6 percent were electrographic monitoring.

Like the rates of surgical procedures, rates of nonsurgical procedures per 100,000 population were generally higher for patients 75 years of age and over than for those 65–74 years of age. One exception was arteriography and angiocardiology using contrast material, for which the rate per 100,000 population was 2,834.3 for persons 65–74 years of age and 1,605.6 for those 75 years of age and over.

Patients with HIV diagnoses

The estimated number of patients discharged with human immunodeficiency virus (HIV) diagnoses increased from 10,000 in 1984 to 140,000 in 1989 (table K). The discharge rate for patients with HIV diagnoses rose from 0.4 to 5.7 per 10,000 population during this period. These data include patients with acquired immunodeficiency syndrome (AIDS), those with HIV and associated conditions, and those with positive serological or viral culture findings for HIV. The ICD-9-CM code of 279.19 was used for HIV diagnoses from 1984 until 1986. During 1986, new ICD-9-CM codes, 042-044 and 795.8, were added to provide more detail.

The number and rate of days of care for patients with HIV diagnoses also greatly increased from 1984 to 1989. The number of days of care in 1989 (1,731,000) was 14 times the number in 1984 (123,000). The rate of days of care grew from 5.3 to 70.2 per 10,000 population during this period. The average length of stay for patients with HIV diagnoses was estimated at 12.1 days in 1984 but at 17.1 days in 1985. From 1985 until 1989 average stays for HIV patients decreased; their 1989 average stay was 12.4 days.

All patients with HIV diagnoses discharged from 1984 to 1989 have been combined in table L to examine their

Table K. Selected measures of hospital utilization for patients discharged from short-stay hospitals with human immunodeficiency virus (HIV) diagnoses: United States, 1984-89

[Discharges from non-Federal hospitals. Excludes newborn infants. Data are for discharges with at least one of the following *International Classification of Diseases, 9th Revision, Clinical Modification* codes: 279.19, 042-044, 795.8]

Measure of utilization	1984	1985	1986	1987	1988	1989
Number of patients discharged in thousands	10	23	44	67	95	140
Rate of patient discharges per 10,000 population	0.4	1.0	1.8	2.8	3.9	5.7
Number of days of care in thousands	123	387	714	936	1,277	1,731
Rate of days of care per 10,000 population	5.3	16.3	29.8	38.7	52.3	70.2
Average length of stay in days	12.1	17.1	16.4	14.1	13.4	12.4

Table L. Number and percent distribution of patients with human immunodeficiency virus (HIV) diagnoses discharged from short-stay hospitals by sex and selected age groups, according to patients discharged, days of care, and average length of stay: United States, 1984-89

[Discharges from non-Federal hospitals. Excludes newborn infants. Data are for discharges with at least one of the following *International Classification of Diseases, 9th Revision, Clinical Modification* codes: 279.19, 042-044, 795.8]

Sex and age	Patients discharged		Days of care		Average length of stay in days
	Number in thousands	Percent distribution	Number in thousands	Percent distribution	
Total	378	100.0	5,168	100.0	13.7
Sex					
Male	328	86.7	4,500	87.1	13.7
Female	50	13.3	668	12.9	13.3
Age					
Under 25 years	25	6.6	282	5.5	11.3
25-29 years	65	17.1	784	15.2	12.2
30-34 years	82	21.7	1,090	21.1	13.3
35-39 years	83	22.0	1,258	24.3	15.1
40-44 years	62	16.4	731	14.2	11.8
45 years and over	61	16.2	1,022	19.8	16.6

characteristics. Of the estimated 378,000 HIV patients discharged during this period, 86.7 percent were males and 13.3 percent were females. Most HIV patients discharged (77.2 percent) were 25–44 years of age and 43.7 percent were 30–39 years of age. Patients under 25 years of age made up only 6.6 percent, and those 45 years of age and over accounted for 16.2 percent of HIV patients discharged.

Distributions of days of care by sex and age groups were similar to the patterns seen for discharges. Males accounted for 87.1 percent of the 5,168,000 days of care used by patients with HIV diagnoses from 1984 to 1989.

Patients 25–44 years of age used 74.8 percent of HIV hospital days; those 30–39 years of age were responsible for 45.4 percent.

The combined average length of stay for patients with HIV diagnoses during the 6-year period was 13.7 days. Average lengths of stay did not vary greatly by sex, averaging 13.7 days for males and 13.3 days for females. Average stays generally increased with age, from 11.3 days for HIV patients under 25 years of age to 16.6 days for those 45 years of age and over. However, patients 40–44 years of age did not fit the pattern; their average length of stay was 11.8 days.

Hospital deaths

In 1989, 96.0 percent of patients (excluding newborn infants) were discharged from short-stay hospitals alive, 2.9 percent were discharged dead, and for 1.1 percent a discharge status was not reported. Of the estimated 883,000 patients who died, 431,000 (48.9 percent) were male and 451,000 (51.1 percent) were female (table M). As expected, patients 65 years of age and over accounted for the majority of hospital deaths, 654,000 (74.1 percent). Persons who died while hospitalized represented approximately 41 percent of all deaths during 1989 (4).

A hospital fatality rate is the number of deaths for a category divided by the total number of discharges for that category multiplied by 100. This rate is conservative because the formula is based on the assumption that all patients whose discharge status was not stated were discharged alive. An overall fatality rate of 2.9 was computed for patients in 1989. The rate was 3.5 for males compared with 2.5 for females. Patients under 65 years of age had a fatality rate of 1.1; for those 65 years of age and over the rate was 6.4.

Table M. Number of deaths and fatality rate of patients discharged from short-stay hospitals, by sex and age of patient: United States, 1989

[Deaths in non-Federal hospitals. Excludes newborn infants]

Age	Both sexes			Both sexes		
	Male	Female	Both sexes	Male	Female	Both sexes
	Number in thousands			Rate per 100 discharges		
All ages	431	451	883	2.9	3.5	2.5
Under 65 years	128	100	228	1.1	1.6	0.8
Under 15 years	11	*9	20	0.8	0.7	*0.9
15-44 years	28	25	53	0.4	0.8	0.3
45-64 years	90	66	155	2.5	2.8	2.1
65 years and over	303	351	654	6.4	6.8	6.1

Table N. Number of deaths and fatality rate of patients discharged from short-stay hospitals, by age and selected categories of first-listed diagnosis: United States, 1989

[Deaths in non-Federal hospitals. Excludes newborn infants. Diagnostic groupings and code numbers 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	All ages			All ages		
	Under 65 years	65 years and over	All ages	Under 65 years	65 years and over	All ages
	Number in thousands			Rate per 100 discharges		
All deaths ¹	228	654	883	2.9	1.1	6.4
Heart disease 391-392.0, 393-398, 402, 404, 410-416, 420-429	32	154	186	5.3	2.4	7.1
Acute myocardial infarction 410	14	70	84	12.1	4.8	17.2
Congestive heart failure 428.0	*6	38	44	6.8	*4.1	7.6
Cardiac dysrhythmias 427	*	20	24	5.0	*	5.9
Chronic ischemic heart disease 411-414	*	*9	12	1.0	*	*1.3
Malignant neoplasms 140-208, 230-234	62	99	161	10.0	8.5	11.3
Malignant neoplasm of trachea, bronchus, and lung 162, 197.0, 197.3	16	20	36	14.9	13.9	15.7
Pneumonia 480-486	15	62	77	7.5	2.9	11.7
Cerebrovascular disease 430-438	*10	55	65	8.2	*5.2	9.1
Injury and poisoning 800-999	19	27	47	1.7	1.0	3.4
Septicemia 038	*7	25	32	16.5	*8.5	22.4
Nepritis, nephrotic syndrome, and nephrosis 580-589	*	13	15	12.4	*	20.7

¹Includes data for deaths not shown in table.

Table O. Average length of stay of patients discharged from short-stay hospitals, by discharge status, sex, and age: United States, 1989
 [Deaths in non-Federal hospitals. Excludes newborn infants]

Age	Discharge status					
	Alive			Dead		
	Both sexes	Male	Female	Both sexes	Male	Female
	Average length of stay in days					
All ages	6.3	6.8	5.9	12.9	12.7	13.2
Under 65 years	5.2	6.1	4.7	13.5	13.6	13.5
Under 15 years	4.8	4.8	4.8	11.3	12.4	*10.0
15-44 years	4.6	6.1	4.0	13.7	15.1	12.1
45-64 years	6.5	6.5	6.4	13.8	13.2	14.5
65 years and over.	8.6	8.3	8.8	12.7	12.4	13.1

Table N shows estimated numbers of hospital deaths and hospital fatality rates for selected conditions for the age groups under 65 years of age and 65 years of age and over. These estimates are not the same as the data for underlying cause of death reported in *Vital Statistics of the United States*. The diagnostic groupings in table N accounted for 66 percent of the deaths in short-stay hospitals in 1989. Heart disease and malignant neoplasms were responsible for 347,000 (39 percent) of all hospital deaths. Fatality rates of more than 10 per 100 discharges were found for septicemia (16.5); malignant neoplasm of trachea, bronchus, and lung (14.9); nephritis, nephrotic syndrome, and nephrosis (12.4); and acute myocardial infarction (12.1).

Average lengths of stay for patients discharged from short-stay hospitals are shown by discharge status, age, and sex in table O. The average stay for all discharged patients was 6.5 days. Patients discharged alive had an average stay of 6.3 days, but those discharged dead had an average length of stay of 12.9 days. For patients under 65 years of age, the average length of stay was 5.2 days for those discharged alive; however, it was 13.5 days for those who died in the hospital. Average lengths of stay were more similar for patients 65 years of age and over—8.6 days for those discharged alive compared with 12.7 days for those who died in hospitals.

Newborn infants

Newborn infants, defined as patients admitted to the hospital by birth, were estimated at 3,884,000 in 1989 (table P). Males made up 1,989,000 (51.2 percent) and females 1,895,000 (48.8 percent) of newborn infants. Because these estimates were based on a sample, they may not agree with the data on births published in *Vital Statistics of the United States*.

The South Region accounted for 32.7 percent of newborn infants, the Midwest for 24.5 percent, the West for 23.5 percent, and the Northeast for 19.4 percent. The average length of stay for all newborn infants was 3.4 days; average stays ranged from 4.2 days in the Northeast Region to 2.6 days in the West Region.

As shown in table Q, 2,256,000 newborn infants were defined as well, which meant they did not have any illnesses or risk-related diagnoses. The 1,628,000 sick newborn infants had at least one diagnosis in addition to the newborn infant diagnosis. Sick newborn infants made up 45 percent of all male newborn infants and 39 percent of female newborn infants.

The average length of stay for sick newborn infants was 4.8 days, compared with an average stay of 2.4 days for well newborn infants. As a result, sick newborn infants accounted for 60 percent of all hospital days for newborn infants, although they constituted only 42 percent of newborn infant discharges.

The diagnosis of hemolytic disease of fetus or newborn, due to isoimmunization and other perinatal jaun-

Table P. Number, percent distribution, and average length of stay for newborn infants discharged from short-stay hospitals, by sex and geographic region: United States, 1989

[Discharges from non-Federal hospitals]

Sex and region	Number of discharges	Percent distribution	Average length of stay in days
All newborn infants	3,884	100 0	3.4
Sex			
Male	1,989	51.2	3.5
Female	1,895	48.8	3.3
Region			
Northeast	752	19.4	4.2
Midwest	953	24.5	3.2
South	1,269	32.7	3.7
West	911	23.5	2.6

dice was reported an estimated 665,000 times for sick newborn infants, and by itself accounted for 23 percent of sick newborn diagnoses (table R). Other leading sick newborn infant diagnoses included respiratory distress syndrome and other respiratory conditions of fetus and newborn, congenital anomalies, and disorders relating to short gestation and unspecified low birthweight (prematurity). Together, these three diagnostic categories made up 26 percent of sick newborn infant diagnoses.

Table Q. Number and average length of stay of newborn infants discharged from short-stay hospitals, by sex and health status: United States, 1989

[Discharges from non-Federal hospitals]

Health status	Both sexes	Male	Female
Number in thousands			
Total	3,884	1,989	1,895
Well	2,256	1,097	1,159
Sick	1,628	892	736
Average length of stay in days			
Total	3.4	3.5	3.3
Well	2.4	2.4	2.3
Sick	4.8	4.9	4.8

Table R. Number of all-listed diagnoses for sick newborn infants discharged from short-stay hospitals, by sex and selected diagnostic categories: United States, 1989

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

Diagnostic category and ICD-9-CM code	Both sexes	Male	Female
Number in thousands			
Sick newborn infant diagnoses ¹	2,849	1,594	1,257
Congenital anomalies740-759	236	137	100
Disorders relating to short gestation and unspecified low birthweight (prematurity)765	213	112	101
Respiratory distress syndrome and other respiratory conditions of fetus and newborn769-770	302	175	127
Hemolytic disease of fetus or newborn, due to isoimmunization and other perinatal jaundice773-774	665	361	304

¹Includes data for diagnoses not shown in the table.

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TABLE 1. NUMBER, PERCENT DISTRIBUTION, AND RATE OF PATIENTS DISCHARGED FROM SHORT-STAY HOSPITALS AND CF DAYS OF CARE, WITH AVERAGE LENGTHS OF STAY, BY SEX AND AGE: UNITED STATES, 1989

[DISCHARGES FROM NON-FEDERAL HOSPITALS. EXCLUDES NEWBORN INFANTS]

SEX AND AGE	DISCHARGED PATIENTS			DAYS OF CARE			
	NUMBER IN THOUSANDS	PERCENT DISTRIBUTION	RATE PER 1,000 POPULATION	NUMBER IN THOUSANDS	PERCENT DISTRIBUTION	RATE PER 1,000 POPULATION	AVERAGE LENGTH OF STAY IN DAYS
BOTH SEXES							
ALL AGES.....	30,947	100.0	125.5	200,827	100.0	814.5	6.5
UNDER 15 YEARS.....	2,597	8.4	48.2	12,632	6.3	234.3	4.9
UNDER 1 YEAR.....	791	2.6	200.5	4,775	2.4	1,210.4	6.0
1-4 YEARS.....	819	2.6	55.3	2,883	1.4	194.7	3.5
5-14 YEARS.....	987	3.2	28.1	4,974	2.5	141.5	5.0
15-44 YEARS.....	11,848	38.3	102.8	55,420	27.6	481.1	4.7
15-19 YEARS.....	1,428	4.6	80.9	6,486	3.2	367.1	4.5
20-24 YEARS.....	2,189	7.1	120.7	8,191	4.1	451.4	3.7
25-34 YEARS.....	4,969	16.1	115.1	22,572	11.2	522.8	4.5
35-44 YEARS.....	3,262	10.5	90.1	18,171	9.0	501.7	5.6
45-64 YEARS.....	6,271	20.3	135.0	41,979	20.9	903.7	6.7
45-54 YEARS.....	2,812	9.1	113.1	17,503	8.7	704.1	6.2
55-64 YEARS.....	3,459	11.2	160.2	24,477	12.2	1,133.6	7.1
65 YEARS AND OVER.....	10,230	33.1	330.2	90,795	45.2	2,930.4	8.9
65-74 YEARS.....	4,678	15.1	257.3	38,464	19.2	2,115.5	8.2
75-84 YEARS.....	3,904	12.6	399.9	35,949	17.9	3,682.9	9.2
85 YEARS AND OVER.....	1,648	5.3	541.8	16,383	8.2	5,385.6	9.9
UNDER 17 YEARS.....	2,996	9.7	49.5	14,818	7.4	244.7	4.9
17-69 YEARS.....	20,013	64.7	121.2	113,651	56.6	688.3	5.7
70 YEARS AND OVER.....	7,938	25.6	381.3	72,358	36.0	3,476.3	9.1
MALE							
ALL AGES.....	12,583	100.0	105.3	88,493	100.0	740.7	7.0
UNDER 15 YEARS.....	1,521	12.1	55.1	7,408	8.4	268.3	4.9
UNDER 1 YEAR.....	471	3.7	233.1	2,718	3.1	1,345.7	5.8
1-4 YEARS.....	498	4.0	65.7	1,766	2.0	233.1	3.5
5-14 YEARS.....	552	4.4	30.7	2,923	3.3	162.3	5.3
15-44 YEARS.....	3,405	27.1	59.8	21,155	23.9	371.5	6.2
15-19 YEARS.....	418	3.3	46.6	2,494	2.8	278.3	6.0
20-24 YEARS.....	428	3.4	48.3	2,347	2.7	264.6	5.5
25-34 YEARS.....	1,204	9.6	56.4	7,899	8.9	365.8	6.6
35-44 YEARS.....	1,355	10.8	76.3	8,416	9.5	473.9	6.2
45-64 YEARS.....	3,179	25.3	142.8	21,429	24.2	962.1	6.7
45-54 YEARS.....	1,359	10.8	112.5	8,580	9.7	710.6	6.3
55-64 YEARS.....	1,821	14.5	178.5	12,848	14.5	1,255.9	7.1
65 YEARS AND OVER.....	4,478	35.6	354.4	38,501	43.5	3,047.0	8.6
65-74 YEARS.....	2,275	18.1	281.1	18,067	20.4	2,231.9	7.9
75-84 YEARS.....	1,655	13.2	448.4	14,931	16.9	4,045.3	9.0
85 YEARS AND OVER.....	548	4.4	644.2	5,503	6.2	6,474.5	10.1
UNDER 17 YEARS.....	1,665	13.2	53.7	8,416	9.5	271.4	5.1
17-69 YEARS.....	7,595	60.4	94.4	50,484	57.0	627.5	6.6
70 YEARS AND OVER.....	3,323	26.4	415.2	29,593	33.4	3,697.2	8.9
FEMALE							
ALL AGES.....	18,364	100.0	144.5	112,334	100.0	883.9	6.1
UNDER 15 YEARS.....	1,077	5.9	40.9	5,225	4.7	198.6	4.9
UNDER 1 YEAR.....	320	1.7	166.2	2,057	1.8	1,066.3	6.4
1-4 YEARS.....	322	1.8	44.5	1,117	1.0	154.5	3.5
5-14 YEARS.....	435	2.4	25.4	2,051	1.8	115.6	4.7
15-44 YEARS.....	8,443	46.0	144.9	34,265	30.5	588.2	4.1
15-19 YEARS.....	1,010	5.5	116.1	3,992	3.6	458.5	4.0
20-24 YEARS.....	1,761	9.6	189.9	5,844	5.2	630.1	3.3
25-34 YEARS.....	3,765	20.5	172.6	14,673	13.1	672.7	3.9
35-44 YEARS.....	1,907	10.4	103.3	9,756	8.7	528.6	5.1
45-64 YEARS.....	3,092	16.8	127.9	20,551	18.3	850.0	6.6
45-54 YEARS.....	1,453	7.9	113.7	8,922	7.9	697.9	6.1
55-64 YEARS.....	1,639	8.9	143.8	11,628	10.4	1,020.7	7.1
65 YEARS AND OVER.....	5,752	31.3	313.5	52,294	46.6	2,850.1	9.1
65-74 YEARS.....	2,403	13.1	238.2	20,397	18.2	2,022.1	8.5
75-84 YEARS.....	2,248	12.2	370.4	21,017	18.7	3,462.5	9.3
85 YEARS AND OVER.....	1,101	6.0	502.1	10,880	9.7	4,963.3	9.9
UNDER 17 YEARS.....	1,331	7.2	45.1	6,402	5.7	210.7	4.8
17-69 YEARS.....	12,418	67.6	146.6	63,167	56.2	745.5	5.1
70 YEARS AND OVER.....	4,615	25.1	360.2	42,765	38.1	3,338.2	9.3

TABLE 2. NUMBER, PERCENT DISTRIBUTION, AND RATE OF PATIENTS DISCHARGED FROM SHORT-STAY HOSPITALS AND OF DAYS OF CARE, WITH AVERAGE LENGTHS OF STAY, BY SEX, RACE, AND AGE: UNITED STATES, 1989

[DISCHARGES FROM NON-FEDERAL HOSPITALS. EXCLUDES NEWBORN INFANTS]

SEX, RACE, AND AGE	DISCHARGED PATIENTS			DAYS OF CARE			
	NUMBER IN THOUSANDS	PERCENT DISTRIBUTION	RATE PER 1,000 POPULATION	NUMBER IN THOUSANDS	PERCENT DISTRIBUTION	RATE PER 1,000 POPULATION	AVERAGE LENGTH OF STAY IN DAYS
BOTH SEXES							
ALL RACES, ALL AGES.....	30,947	100.0	125.5	200,827	100.0	814.5	6.5
UNDER 15 YEARS.....	2,597	8.4	48.2	12,632	6.3	234.3	4.9
15-44 YEARS.....	11,848	38.3	102.8	55,420	27.6	481.1	4.7
45-64 YEARS.....	6,271	20.3	135.0	41,979	20.9	903.7	6.7
65 YEARS AND OVER.....	10,230	33.1	330.2	90,795	45.2	2,530.4	8.9
WHITE, ALL AGES.....	22,678	73.3	109.2	150,140	74.8	723.0	6.6
UNDER 15 YEARS.....	1,632	5.3	37.7	7,395	3.7	171.0	4.5
15-44 YEARS.....	7,951	25.7	82.6	37,073	18.5	385.0	4.7
45-64 YEARS.....	4,780	15.4	118.6	31,601	15.7	784.0	6.6
65 YEARS AND OVER.....	8,315	26.9	298.9	74,072	36.9	2,662.3	8.9
ALL OTHER, ALL AGES.....	4,867	15.7	125.2	32,379	16.1	832.7	6.7
UNDER 15 YEARS.....	589	1.9	55.2	3,220	1.6	302.0	5.5
15-44 YEARS.....	2,465	8.0	130.3	12,740	6.3	673.6	5.2
45-64 YEARS.....	888	2.9	144.5	6,895	3.4	1,122.1	7.8
65 YEARS AND OVER.....	926	3.0	292.8	9,524	4.7	3,011.9	10.3
RACE NOT STATED, ALL AGES.....	3,402	11.0	...	18,308	9.1	...	5.4
UNDER 15 YEARS.....	377	1.2	...	2,018	1.0	...	5.4
15-44 YEARS.....	1,432	4.6	...	5,607	2.8	...	3.9
45-64 YEARS.....	604	2.0	...	3,484	1.7	...	5.8
65 YEARS AND OVER.....	989	3.2	...	7,200	3.6	...	7.3
MALE							
ALL RACES, ALL AGES.....	12,583	100.0	105.3	88,493	100.0	740.7	7.0
UNDER 15 YEARS.....	1,521	12.1	55.1	7,408	8.4	268.3	4.9
15-44 YEARS.....	3,405	27.1	59.8	21,155	23.9	371.5	6.2
45-64 YEARS.....	3,179	25.3	142.8	21,429	24.2	562.1	6.7
65 YEARS AND OVER.....	4,478	35.6	354.4	38,501	43.5	3,047.0	8.6
WHITE, ALL AGES.....	9,395	74.7	93.0	65,586	74.1	645.1	7.0
UNDER 15 YEARS.....	943	7.5	42.5	4,171	4.7	187.9	4.4
15-44 YEARS.....	2,347	18.6	48.9	13,883	15.7	285.2	5.9
45-64 YEARS.....	2,455	19.5	125.9	16,147	18.2	828.3	6.6
65 YEARS AND OVER.....	3,649	29.0	321.6	31,385	35.5	2,765.9	8.6
ALL OTHER, ALL AGES.....	1,865	14.8	101.3	14,623	16.5	793.8	7.8
UNDER 15 YEARS.....	350	2.8	64.6	1,931	2.2	356.6	5.5
15-44 YEARS.....	704	5.6	78.7	5,298	6.0	592.6	7.5
45-64 YEARS.....	425	3.4	153.0	3,389	3.8	1,215.4	8.0
65 YEARS AND OVER.....	387	3.1	299.9	4,007	4.5	3,108.2	10.4
RACE NOT STATED, ALL AGES.....	1,323	10.5	...	8,283	9.4	...	6.3
UNDER 15 YEARS.....	227	1.8	...	1,306	1.5	...	5.7
15-44 YEARS.....	354	2.8	...	1,975	2.2	...	5.6
45-64 YEARS.....	299	2.4	...	1,893	2.1	...	6.3
65 YEARS AND OVER.....	442	3.5	...	3,110	3.5	...	7.0
FEMALE							
ALL RACES, ALL AGES.....	18,364	100.0	144.5	112,334	100.0	883.9	6.1
UNDER 15 YEARS.....	1,077	5.9	40.9	5,225	4.7	196.6	4.9
15-44 YEARS.....	8,443	46.0	144.9	34,265	30.5	588.2	4.1
45-64 YEARS.....	3,092	16.8	127.9	20,551	18.3	850.0	6.6
65 YEARS AND OVER.....	5,752	31.3	313.5	52,294	46.6	2,850.1	9.1
WHITE, ALL AGES.....	13,283	72.3	124.6	84,554	75.3	793.0	6.4
UNDER 15 YEARS.....	689	3.8	32.7	3,224	2.9	153.1	4.7
15-44 YEARS.....	5,604	30.5	116.1	23,190	20.6	480.4	4.1
45-64 YEARS.....	2,325	12.7	111.7	15,453	13.8	742.5	6.6
65 YEARS AND OVER.....	4,666	25.4	283.2	42,687	38.0	2,591.0	9.1
ALL OTHER, ALL AGES.....	3,002	16.3	146.7	17,755	15.8	867.7	5.9
UNDER 15 YEARS.....	239	1.3	45.5	1,289	1.1	245.7	5.4
15-44 YEARS.....	1,761	9.6	176.5	7,443	6.6	746.0	4.2
45-64 YEARS.....	463	2.5	137.4	3,507	3.1	1,041.5	7.6
65 YEARS AND OVER.....	539	2.9	287.9	5,517	4.9	2,545.6	10.2
RACE NOT STATED, ALL AGES.....	2,079	11.3	...	10,025	8.9	...	4.8
UNDER 15 YEARS.....	149	0.8	...	712	0.6	...	4.8
15-44 YEARS.....	1,078	5.9	...	3,632	3.2	...	3.4
45-64 YEARS.....	304	1.7	...	1,591	1.4	...	5.2
65 YEARS AND OVER.....	547	3.0	...	4,090	3.6	...	7.5

TABLE 3. NUMBER OF PATIENTS DISCHARGED FROM SHORT-STAY HOSPITALS, DAYS OF CARE, AND AVERAGE LENGTHS OF STAY, BY PRINCIPAL EXPECTED SOURCE OF PAYMENT, GEOGRAPHIC REGION, AND AGE: UNITED STATES, 1989

[DISCHARGES FROM NON-FEDERAL HOSPITALS. EXCLUDES NEWBORN INFANTS]

REGION AND AGE	ALL PRINCIPAL EXPECTED SOURCES OF PAYMENT 1/	PRIVATE INSURANCE	MEDICARE	MEDICAID	WORKER'S COMPEN-SATION	OTHER GOVERNMENT PAYMENTS	SELF-PAY	OTHER PAYMENTS AND NC CHARGE
UNITED STATES								
NUMBER OF PATIENTS DISCHARGED IN THOUSANDS								
ALL AGES.....	30,947	12,031	10,589	3,204	560	679	1,740	1,295
UNDER 15 YEARS.....	2,597	1,334	106	623	-	83	221	158
15-44 YEARS.....	11,848	6,498	403	1,980	308	375	1,130	714
45-64 YEARS.....	6,271	3,834	836	491	143	179	322	283
65 YEARS AND OVER.....	10,230	365	9,245	110	110	42	67	140
NORTHEAST								
ALL AGES.....	7,044	2,774	2,353	780	146	82	425	326
UNDER 15 YEARS.....	621	339	95	158	-	46	58	41
15-44 YEARS.....	2,579	1,411	69	467	69	49	284	183
45-64 YEARS.....	1,455	926	156	127	36	24	69	78
65 YEARS AND OVER.....	2,389	97	2,124	29	41	*	14	24
MIDWEST								
ALL AGES.....	7,676	3,035	2,634	758	174	132	332	441
UNDER 15 YEARS.....	646	366	*	167	-	14	37	54
15-44 YEARS.....	2,792	1,610	78	458	72	82	206	215
45-64 YEARS.....	1,553	981	191	116	48	34	65	82
65 YEARS AND OVER.....	2,685	78	2,363	17	54	*	25	90
SOUTH								
ALL AGES.....	10,960	4,229	3,816	1,102	169	283	718	263
UNDER 15 YEARS.....	796	387	47	200	-	36	85	39
15-44 YEARS.....	4,350	2,408	123	687	119	154	473	154
45-64 YEARS.....	2,269	1,323	363	174	41	82	141	63
65 YEARS AND OVER.....	3,545	110	3,322	41	49	10	19	47
WEST								
ALL AGES.....	5,268	1,992	1,786	564	71	182	265	265
UNDER 15 YEARS.....	535	242	92	98	-	27	41	23
15-44 YEARS.....	2,128	1,068	133	369	48	89	168	162
45-64 YEARS.....	994	604	125	74	18	38	47	60
65 YEARS AND OVER.....	1,611	79	1,436	23	46	28	49	20
UNITED STATES								
NUMBER OF DAYS OF CARE IN THOUSANDS								
ALL AGES.....	200,827	60,325	93,327	18,852	3,245	3,930	9,291	6,846
UNDER 15 YEARS.....	12,632	5,621	754	3,635	-	426	1,028	863
15-44 YEARS.....	55,420	28,132	3,250	9,980	1,443	1,939	5,352	3,195
45-64 YEARS.....	41,979	23,429	6,969	4,244	945	1,287	2,170	1,809
65 YEARS AND OVER.....	90,795	3,142	82,354	994	858	277	741	980
NORTHEAST								
ALL AGES.....	54,182	15,153	25,549	6,159	950	532	2,650	1,954
UNDER 15 YEARS.....	3,273	1,507	40	1,028	-	427	298	330
15-44 YEARS.....	13,953	6,395	797	3,384	346	268	1,607	885
45-64 YEARS.....	11,116	6,332	1,594	1,391	219	213	587	508
65 YEARS AND OVER.....	25,840	918	23,119	357	386	*	158	231
MIDWEST								
ALL AGES.....	49,046	15,357	22,102	4,352	1,170	967	1,796	2,238
UNDER 15 YEARS.....	3,026	1,469	*	1,006	-	94	160	233
15-44 YEARS.....	13,328	7,180	764	2,251	391	602	883	925
45-64 YEARS.....	10,180	5,923	1,552	948	407	254	393	488
65 YEARS AND OVER.....	22,513	785	19,773	147	373	*	361	591
SOUTH								
ALL AGES.....	68,983	20,878	32,956	5,534	803	1,635	3,833	1,386
UNDER 15 YEARS.....	3,458	1,497	49	1,004	-	175	374	210
15-44 YEARS.....	19,851	10,592	1,039	2,786	519	800	2,321	701
45-64 YEARS.....	14,951	7,906	3,005	1,388	215	588	968	437
65 YEARS AND OVER.....	30,723	883	28,863	357	469	73	169	438
WEST								
ALL AGES.....	28,615	8,937	12,720	2,807	322	796	1,012	1,268
UNDER 15 YEARS.....	2,875	1,148	651	597	-	130	196	90
15-44 YEARS.....	8,288	3,965	651	1,560	187	270	541	683
45-64 YEARS.....	5,733	3,268	819	517	104	233	222	375
65 YEARS AND OVER.....	11,719	556	10,599	133	430	163	453	119

TABLE 3. NUMBER OF PATIENTS DISCHARGED FROM SHORT-STAY HOSPITALS, DAYS OF CARE, AND AVERAGE LENGTHS OF STAY, BY PRINCIPAL EXPECTED SOURCE OF PAYMENT, GEOGRAPHIC REGION, AND AGE: UNITED STATES, 1989--CON.

[DISCHARGES FROM NON-FEDERAL HOSPITALS. EXCLUDES NEWBORN INFANTS]

REGION AND AGE	ALL PRINCIPAL EXPECTED SOURCES OF PAYMENT 1/	PRIVATE INSURANCE	MEDICARE	MEDICAID	WORKER'S COMPEN- SATION	OTHER GOVERNMENT PAYMENTS	SELF-PAY	OTHER PAYMENTS AND NC CHARGE	
UNITED STATES		AVERAGE LENGTH OF STAY IN DAYS							
ALL AGES.....	6.5	5.0	8.8	5.9	5.8	5.8	5.3	5.3	
UNDER 15 YEARS.....	4.9	4.2	7.1	5.8	-	5.1	4.7	5.5	
15-44 YEARS.....	4.7	4.3	8.1	5.0	4.7	5.2	4.7	4.5	
45-64 YEARS.....	6.7	6.1	8.3	8.6	6.6	7.2	6.7	6.4	
65 YEARS AND OVER.....	8.9	8.6	8.9	9.0	7.8	6.6	11.1	7.0	
NORTHEAST									
ALL AGES.....	7.7	5.5	10.9	7.9	6.5	6.5	6.2	6.0	
UNDER 15 YEARS.....	5.3	4.4	9.6	6.5	-	4.3	5.1	8.0	
15-44 YEARS.....	5.4	4.5	11.6	7.2	5.0	5.5	5.7	4.8	
45-64 YEARS.....	7.6	6.8	10.2	11.0	6.1	8.7	8.6	6.5	
65 YEARS AND OVER.....	*	9.4	10.9	12.3	9.5	*	11.2	9.7	
MIDWEST									
ALL AGES.....	6.4	5.1	8.4	5.7	6.7	7.3	5.4	5.1	
UNDER 15 YEARS.....	4.7	4.0	*	6.0	-	7.0	4.3	4.3	
15-44 YEARS.....	4.8	4.5	9.8	4.9	5.4	7.2	4.3	4.3	
45-64 YEARS.....	6.6	6.0	8.1	8.2	8.5	7.5	6.0	6.0	
65 YEARS AND OVER.....	8.4	10.0	8.4	8.4	6.9	*	14.6	6.6	
SOUTH									
ALL AGES.....	6.3	4.9	8.6	5.0	4.8	5.8	5.3	5.3	
UNDER 15 YEARS.....	4.3	3.9	7.1	5.0	-	4.8	4.4	5.3	
15-44 YEARS.....	4.6	4.4	8.4	4.1	4.4	5.2	4.9	4.6	
45-64 YEARS.....	6.6	6.0	8.3	8.0	5.3	7.1	6.8	6.9	
65 YEARS AND OVER.....	8.7	8.0	8.7	8.8	9.0	7.1	8.8	9.8	
WEST									
ALL AGES.....	5.4	4.5	7.1	5.0	4.5	4.4	3.8	4.8	
UNDER 15 YEARS.....	5.4	4.7	7.1	6.1	-	4.9	4.8	3.9	
15-44 YEARS.....	3.9	3.7	4.9	4.2	3.9	3.0	3.2	4.2	
45-64 YEARS.....	5.8	5.4	6.6	7.0	5.8	6.0	4.7	6.3	
65 YEARS AND OVER.....	7.3	7.0	7.4	5.7	9.1	5.9	9.9	6.0	

1/ INCLUDES DISCHARGES FOR WHOM NO EXPECTED SOURCE OF PAYMENT WAS INDICATED

Table 4. Number and rate of patients discharged from short-stay hospitals, and of days of care, with average lengths of stay, by sex, age, and geographic region: United States, 1989

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

<i>Sex, age, and region</i>	<i>Discharged patients</i>		<i>Days of care</i>		<i>Average length of stay in days</i>
	<i>Number in thousands</i>	<i>Rate per 1,000 population</i>	<i>Number in thousands</i>	<i>Rate per 1,000 population</i>	
Both sexes					
All ages	30,947	125.5	200,827	814.5	6.5
Northeast	7,044	139.1	54,182	1,069.6	7.7
Midwest	7,676	127.9	49,046	817.3	6.4
South	10,960	129.5	68,983	814.9	6.3
West	5,268	102.8	28,615	558.5	5.4
Under 15 years	2,597	48.2	12,632	234.3	4.9
Northeast	621	61.5	3,273	324.2	5.3
Midwest	646	49.5	3,026	232.0	4.7
South	796	42.2	3,458	183.5	4.3
West	535	44.8	2,875	241.0	5.4
15-44 years	11,848	102.8	55,420	481.1	4.7
Northeast	2,579	110.7	13,953	598.8	5.4
Midwest	2,792	99.8	13,328	476.7	4.8
South	4,350	110.6	19,851	504.6	4.6
West	2,128	86.5	8,288	336.9	3.9
45-64 years	6,271	135.0	41,979	903.7	6.7
Northeast	1,455	141.0	11,116	1,077.2	7.6
Midwest	1,553	137.9	10,180	903.8	6.6
South	2,269	143.4	14,951	944.6	6.6
West	994	109.9	5,733	634.2	5.8
65 years and over	10,230	330.2	90,795	2,930.4	8.9
Northeast	2,389	344.1	25,840	3,722.7	10.8
Midwest	2,685	346.9	22,513	2,908.6	8.4
South	3,545	333.2	30,723	2,887.5	8.7
West	1,611	284.5	11,719	2,069.5	7.3
Male					
All ages	12,583	105.3	88,493	740.7	7.0
Northeast	2,976	122.8	23,906	986.4	8.0
Midwest	3,182	109.1	21,801	747.4	6.9
South	4,309	105.6	29,687	727.5	6.9
West	2,115	83.8	13,099	518.7	6.2
Under 15 years	1,521	55.1	7,408	268.3	4.9
Northeast	360	69.7	1,934	373.9	5.4
Midwest	368	55.1	1,690	252.8	4.6
South	466	48.4	2,022	209.7	4.3
West	326	53.3	1,762	288.3	5.4
15-44 years	3,405	59.8	21,155	371.5	6.2
Northeast	818	71.7	5,634	493.3	6.9
Midwest	808	58.1	4,998	359.2	6.2
South	1,227	63.6	7,361	381.3	6.0
West	551	44.8	3,163	256.9	5.7
45-64 years	3,179	142.8	21,429	962.1	6.7
Northeast	765	156.3	5,799	1,184.0	7.6
Midwest	789	144.9	5,214	957.8	6.6
South	1,120	149.0	7,397	984.5	6.6
West	505	114.4	3,018	683.0	6.0
65 years and over	4,478	354.4	38,501	3,047.0	8.6
Northeast	1,032	375.6	10,540	3,835.3	10.2
Midwest	1,217	389.5	9,898	3,167.5	8.1
South	1,496	344.1	12,907	2,969.1	8.6
West	733	303.3	5,157	2,134.4	7.0

Table 4. Number and rate of patients discharged from short-stay hospitals, and of days of care, with average lengths of stay, by sex, age, and geographic region: United States, 1989—Con.

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

<i>Sex, age, and region</i>	<i>Discharged patients</i>		<i>Days of care</i>		<i>Average length of stay in days</i>
	<i>Number in thousands</i>	<i>Rate per 1,000 population</i>	<i>Number in thousands</i>	<i>Rate per 1,000 population</i>	
<i>Female</i>					
All ages	18,364	144.5	112,334	883.9	6.1
Northeast	4,068	154.0	30,276	1,145.9	7.4
Midwest	4,493	145.7	27,245	883.5	6.1
South	6,650	151.7	39,296	896.3	5.9
West	3,152	121.3	15,516	597.3	4.9
Under 15 years	1,077	40.9	5,225	198.6	4.9
Northeast	261	52.9	1,340	272.0	5.1
Midwest	278	43.7	1,335	210.1	4.8
South	329	35.8	1,436	156.1	4.4
West	209	35.9	1,113	191.2	5.3
15–44 years	8,443	144.9	34,265	588.2	4.1
Northeast	1,761	148.2	8,320	700.2	4.7
Midwest	1,984	141.2	8,329	592.9	4.2
South	3,123	155.8	2,490	623.4	4.0
West	1,576	128.3	5,125	417.1	3.3
45–64 years	3,092	127.9	20,551	850.0	6.6
Northeast	690	127.2	5,317	980.7	7.7
Midwest	764	131.3	4,966	853.3	6.5
South	1,150	138.2	7,554	908.3	6.6
West	488	105.7	2,714	587.3	5.6
65 years and over	5,752	313.5	52,294	2,850.1	9.1
Northeast	1,356	323.5	15,300	3,648.9	11.3
Midwest	1,468	318.0	12,614	2,733.3	8.6
South	2,049	325.6	17,816	2,831.2	8.7
West	879	270.6	6,563	2,021.2	7.5

TABLE 5. NUMBER, PERCENT DISTRIBUTION, AND RATE OF WOMEN WITH GRIEVANCES DISCHARGED FROM SHORT-STAY HOSPITALS AND OF DAYS OF CARE, WITH AVERAGE LENGTHS OF STAY, BY AGE, RACE, AND GEOGRAPHIC REGION: UNITED STATES, 1969

DISCHARGES FROM NON-FEDERAL HOSPITALS

AGE, RACE, AND REGION	DISCHARGED PATIENTS			DAYS OF CARE			
	NUMBER IN THOUSANDS	PERCENT DISTRIBUTION	RATE PER 1,000 POPULATION	NUMBER IN THOUSANDS	PERCENT DISTRIBUTION	RATE PER 1,000 POPULATION	AVERAGE LENGTH OF STAY IN DAYS
10-54 YEARS.....	11,937	100.0	49.6	11,938	100.0	144.6	2.9
AGE							
10-14 YEARS.....	89	0.7	31.1	89	0.7	33.5	31.3
15-19 YEARS.....	3,926	32.9	67.4	11,431	95.7	196.2	2.9
20-24 YEARS.....	484	4.1	55.5	1,411	11.8	162.1	2.9
25-29 YEARS.....	1,061	8.9	118.4	2,820	23.6	304.1	2.7
30-34 YEARS.....	1,256	10.5	116.4	3,818	31.9	354.0	3.0
35-44 YEARS.....	782	6.5	71.5	2,322	19.4	216.5	2.9
45-54 YEARS.....	337	2.8	18.3	1,060	8.9	52.4	3.1
10-17 YEARS.....	186	1.5	14.1	535	4.5	40.5	2.9
18-54 YEARS.....	11,750	98.3	50.8	10,933	91.3	162.5	2.5
RACE							
WHITE.....	7,469	62.7	32.5	7,362	61.7	111.0	3.0
ALL OTHER.....	4,468	37.3	68.3	4,576	38.3	193.1	3.1
RACE NOT STATED.....	599	5.0	...	1,599	13.4	...	2.5
REGION							
NORTHEAST.....	794	6.6	46.7	2,656	22.2	163.6	3.5
MIDWEST.....	460	3.8	44.8	2,511	21.0	130.9	2.8
SOUTH.....	1,435	11.9	62.5	4,253	35.6	156.5	3.0
WEST.....	868	7.2	53.4	2,048	17.1	123.8	2.3

TABLE 6. NUMBER OF PATIENTS DISCHARGED FROM SHORT-STAY HOSPITALS, RATE OF DISCHARGES, AND AVERAGE LENGTHS OF STAY, BY AGE AND CATEGORY OF FIRST-LISTED DIAGNOSIS: UNITED STATES, 1989

[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	ALL AGES	UNDER 15 YEARS	15-44 YEARS	45-64 YEARS	65 YEARS AND OVER	NUMBER OF PATIENTS DISCHARGED IN THOUSANDS				
01 ALL CONDITIONS.....	30,947	2,597	11,848	6,271	10,230					
02 INFECTIOUS AND PARASITIC DISEASES.....001-139	726	200	242	102	182					
03 NEOPLASMS.....140-239	2,001	45	370	643	942					
04 MALIGNANT NEOPLASMS.....140-208,230-234	1,608	31	187	512	878					
05 MALIGNANT NEOPLASM OF LARGE INTESTINE AND RECTUM.....153-154,197.5	167	*	*6	44	117					
06 MALIGNANT NEOPLASM OF TRACHEA, BRONCHUS, AND LUNG.....162,197.0,197.3	239	*	11	101	127					
07 MALIGNANT NEOPLASM OF BREAST.....174-175,198.81	163	*	18	67	77					
08 BENIGN NEOPLASMS AND NEOPLASMS OF UNCERTAIN BEHAVIOR AND UNSPECIFIED NATURE.....210-229,235-239	392	14	183	131	64					
09 ENDOCRINE, NUTRITIONAL AND METABOLIC DISEASES, AND IMMUNITY DISORDERS.....240-279	1,097	93	235	283	486					
10 DIABETES MELLITUS.....250	438	22	107	142	166					
11 DISEASES OF THE BLOOD AND BLOOD-FORMING ORGANS.....280-289	318	59	89	49	121					
12 MENTAL DISORDERS.....290-319	1,514	47	937	291	239					
13 PSYCHOSES.....290-299	773	12	414	175	173					
14 ALCOHOL DEPENDENCE SYNDROME.....303	218	*	149	55	14					
15 DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS.....320-389	819	181	211	166	260					
16 DISEASES OF THE CENTRAL NERVOUS SYSTEM.....320-336,340-349	341	60	121	67	93					
17 CATARACT.....366	65	*	*	10	53					
18 DISEASES OF THE EAR AND MASTOID PROCESS.....380-389	177	91	29	25	31					
19 DISEASES OF THE CIRCULATORY SYSTEM.....390-459	5,197	27	406	1,552	3,212					
20 HEART DISEASE.....391-392.0,393-398,402,404,410-416,420-429	3,534	16	225	1,116	2,177					
21 ACUTE MYOCARDIAL INFARCTION.....410	695	*	42	245	408					
22 CORONARY ATHEROSCLEROSIS.....414.0	407	*	22	187	197					
23 OTHER ISCHEMIC HEART DISEASE.....411-413,414.1-414.9	893	*	50	339	503					
24 CARDIAC DYSRHYTHMIAS.....427	487	*	36	109	338					
25 CONGESTIVE HEART FAILURE.....428.0	643	*	18	116	505					
26 CEREBROVASCULAR DISEASE.....430-438	795	*	32	152	607					
27 DISEASES OF THE RESPIRATORY SYSTEM.....460-519	2,996	764	536	505	1,190					
28 ACUTE RESPIRATORY INFECTIONS, EXCEPT INFLUENZA.....460-466	475	214	61	62	138					
29 CHRONIC DISEASE OF TONSILS AND ADENOIDS.....474	134	94	38	*	-					
30 PNEUMONIA, ALL FORMS.....480-486	1,033	220	136	145	532					
31 ASTHMA.....493	475	168	127	88	93					
32 DISEASES OF THE DIGESTIVE SYSTEM.....520-579	3,295	264	953	858	1,220					
33 ULCERS OF THE STOMACH AND SMALL INTESTINE.....531-534	256	*	44	76	135					
34 GASTRITIS AND DUODENITIS.....535	143	*7	51	36	48					
35 APPENDICITIS.....540-543	227	60	130	26	11					
36 INGUINAL HERNIA.....550	213	30	46	56	81					
37 NONINFECTIOUS ENTERITIS AND COLITIS.....555-556,558	351	88	124	63	76					
38 CHOLELITHIASIS.....574	482	*	172	151	157					
39 DISEASES OF THE GENITOURINARY SYSTEM.....580-629	2,191	69	915	473	734					
40 CALCULUS OF KIDNEY AND URETER.....592	278	*	138	94	44					
41 HYPERPLASIA OF PROSTATE.....600	249	-	*	55	193					
42 COMPLICATIONS OF PREGNANCY, CHILDBIRTH, AND THE PUERPERIUM 1/.....630-676	756	*	751	*	...					
43 ABORTIONS AND ECTOPIC AND MOLAR PREGNANCIES.....630-639	229	*	227	*	...					
44 DISEASES OF THE SKIN AND SUBCUTANEOUS TISSUE.....680-709	480	39	155	120	165					
45 DISEASES OF THE MUSCULOSKELETAL SYSTEM AND CONNECTIVE TISSUE.....710-739	1,569	51	586	465	467					
46 ARTHROPATHIES AND RELATED DISORDERS.....710-719	431	18	125	103	184					
47 INTERVERTEBRAL DISC DISORDERS.....722	396	*	209	147	40					
48 CONGENITAL ANOMALIES.....740-759	207	137	41	18	11					
49 CERTAIN CONDITIONS ORIGINATING IN THE PERINATAL PERIOD.....760-779	152	146	*	*	*					
50 SYMPTOMS, SIGNS, AND ILL-DEFINED CONDITIONS.....780-799	381	56	154	115	56					
51 INJURY AND POISONING.....800-999	2,806	341	1,188	486	791					
52 FRACTURES, ALL SITES.....800-829	1,021	120	332	157	412					
53 FRACTURE OF NECK OF FEMUR.....820	265	*	*9	25	228					
54 SPRAINS AND STRAINS OF BACK (INCLUDING NECK).....846-847	79	*	42	23	12					
55 INTRACRANIAL INJURIES (EXCLUDING THOSE WITH SKULL FRACTURE).....850-854	186	51	93	15	27					
56 LACERATIONS AND OPEN WOUNDS.....870-904	224	30	152	27	15					
57 SUPPLEMENTARY CLASSIFICATIONS.....V01-V82	4,444	75	4,078	143	147					
58 FEMALES WITH DELIVERIES.....V27	3,937	*9	3,926	*	...					

1/ FIRST-LISTED DIAGNOSIS FOR FEMALES WITH DELIVERIES IS CODED V27, SHOWN UNDER "SUPPLEMENTARY CLASSIFICATIONS."

TABLE 6. NUMBER OF PATIENTS DISCHARGED FROM SHORT-STAY HOSPITALS, RATE OF DISCHARGES, AND AVERAGE LENGTHS OF STAY, BY AGE AND CATEGORY OF FIRST-LISTED DIAGNOSIS: UNITED STATES, 1989--CON.

[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)]

ALL AGES	UNDER 15 YEARS	15-44 YEARS	45-64 YEARS	65 YEARS AND OVER	ALL AGES	UNDER 15 YEARS	15-44 YEARS	45-64 YEARS	65 YEARS AND OVER	
RATE OF PATIENTS DISCHARGED PER 10,000 POPULATION					AVERAGE LENGTH OF STAY IN DAYS					
1,255.2	481.8	1,028.5	1,350.1	3,301.6	6.5	4.9	4.7	6.7	8.9	01
29.4	37.0	21.0	22.0	58.7	7.7	4.3	7.2	10.6	10.3	02
81.1	8.4	32.1	138.5	303.9	8.3	6.5	5.9	7.7	9.8	03
65.2	5.7	16.2	110.3	283.3	9.2	8.3	7.6	8.6	10.0	04
6.8	-	*0.5	9.4	37.8	14.0	-	*9.1	14.1	14.2	05
9.7	*	1.0	21.8	40.9	8.6	*	8.6	8.5	8.8	06
6.6	*	1.6	14.5	25.0	5.4	*	4.2	5.1	5.9	07
15.9	2.6	15.9	28.2	20.6	4.7	2.6	4.1	4.6	7.2	08
44.5	17.2	20.4	61.0	156.8	6.8	4.4	5.1	6.2	8.5	09
17.8	4.1	9.3	30.6	53.6	7.6	4.6	5.8	7.1	9.5	10
12.9	10.9	7.7	10.5	39.2	6.0	3.6	5.7	5.6	7.5	11
61.4	8.7	81.4	62.6	77.2	12.7	25.2	12.1	11.8	13.9	12
31.3	2.2	35.9	37.6	55.8	14.5	26.6	13.9	14.3	15.4	13
8.8	*	12.9	11.7	4.7	10.6	*	11.2	8.5	11.9	14
33.2	33.5	18.3	35.7	84.1	5.5	3.9	5.6	5.2	6.8	15
13.8	11.1	10.5	14.4	30.1	8.6	6.6	6.9	8.4	12.3	16
2.6	*	*	*	17.3	1.5	*	*	*	1.5	17
7.2	16.9	2.5	5.5	10.0	2.6	2.2	2.8	2.8	3.5	18
210.8	5.0	35.2	334.2	1,036.8	7.6	5.8	5.6	6.3	8.4	19
143.3	2.9	19.6	240.2	702.6	7.0	6.1	5.3	6.0	7.7	20
28.2	*	3.6	52.8	131.6	8.6	*	5.9	7.5	9.5	21
16.5	*	1.9	40.2	63.5	6.2	*	4.0	5.0	7.5	22
36.2	*	4.3	73.0	162.4	5.2	*	3.9	4.7	5.7	23
19.7	*	3.1	23.4	109.2	5.8	*	3.7	4.4	6.4	24
26.1	*	1.6	25.0	162.9	8.4	*	6.3	7.6	8.7	25
32.3	*	2.8	32.8	195.8	10.2	*	10.0	9.2	10.5	26
121.5	141.8	46.6	108.8	384.2	6.7	3.5	4.8	7.5	9.3	27
19.3	39.8	5.3	13.3	44.5	4.9	3.5	4.2	5.8	7.1	28
5.4	17.4	3.3	*	-	1.2	1.2	1.2	*	-	29
41.9	40.9	11.8	31.2	171.8	8.1	4.3	7.0	9.2	9.6	30
19.3	31.2	11.0	19.0	29.9	4.5	2.9	4.2	5.2	7.2	31
133.6	48.9	82.7	184.7	393.8	6.3	3.8	4.7	6.1	8.2	32
10.4	*	3.8	16.3	43.5	7.3	*	4.8	6.7	8.6	33
5.8	*1.4	4.4	7.7	15.6	4.6	*2.7	3.6	4.6	5.9	34
9.2	11.2	11.2	5.6	3.6	4.9	4.9	4.1	5.9	11.4	35
8.6	5.6	4.0	12.0	26.2	2.6	1.5	2.0	2.5	3.4	36
14.2	16.3	10.7	13.7	24.5	5.1	3.4	4.0	5.0	9.0	37
19.6	*	14.9	32.6	50.8	6.3	*	4.8	5.7	8.7	38
88.9	12.8	79.4	101.8	236.9	5.2	5.2	3.9	4.6	7.2	39
11.3	*	12.0	20.3	14.2	3.0	*	2.6	2.9	4.7	40
10.1	-	*	11.7	62.4	5.2	-	*	4.3	5.5	41
30.7	*	65.2	*	...	2.8	*	2.8	*	...	42
9.3	*	19.7	*	...	2.3	*	2.3	*	...	43
19.5	7.2	13.5	25.9	53.3	8.0	4.2	5.8	8.4	10.7	44
63.6	9.5	50.9	100.0	150.8	6.5	5.9	4.8	6.1	9.2	45
17.5	3.3	10.9	22.3	59.5	7.7	5.7	3.8	7.6	10.6	46
16.1	*	18.1	31.7	12.9	5.4	*	5.0	5.4	7.6	47
8.4	25.4	3.6	3.8	3.6	5.9	5.4	5.1	10.6	7.2	48
6.1	27.2	*	*	*	11.3	11.0	*	*	*	49
15.4	10.4	13.3	24.7	18.1	3.3	2.7	2.6	3.4	5.5	50
113.8	63.3	103.2	104.6	255.1	6.8	4.3	5.1	7.1	10.3	51
41.4	22.3	28.8	33.9	133.0	8.5	5.1	6.0	8.3	11.6	52
10.8	*	*0.8	5.3	73.4	13.2	*	*9.0	12.5	13.5	53
3.2	*	3.7	5.0	3.9	4.5	*	4.1	4.7	5.7	54
7.5	9.4	8.1	3.3	8.7	7.0	3.1	7.8	8.9	10.6	55
9.1	5.6	13.2	5.8	4.9	3.7	4.2	3.6	3.8	4.5	56
180.2	14.0	354.0	30.8	47.6	3.2	4.8	2.9	4.5	8.9	57
159.7	*1.6	340.8	*	...	2.9	*3.3	2.9	*	...	58

TABLE 7. NUMBER OF PATIENTS DISCHARGED FROM SHORT-STAY HOSPITALS, RATE OF DISCHARGES, AND AVERAGE LENGTHS OF STAY, BY SEX, RACE, AND CATEGORY OF FIRST-LISTED DIAGNOSIS: UNITED STATES, 1989

[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	SEX					
	BOTH SEXES			BOTH SEXES		
	MALE	FEMALE	RATE OF PATIENTS DISCHARGED PER 10,000 POPULATION	MALE	FEMALE	RATE OF PATIENTS DISCHARGED PER 10,000 POPULATION
01 ALL CONDITIONS.....	30,947	12,583	18,364	1,255.2	1,053.3	1,445.0
02 INFECTIOUS AND PARASITIC DISEASES.....001-139	726	362	363	29.4	30.3	28.6
03 NEOPLASMS.....140-239	2,001	842	1,159	81.1	70.5	91.2
04 MALIGNANT NEOPLASMS.....140-208,230-234	1,608	770	838	65.2	64.5	66.0
05 MALIGNANT NEOPLASM OF LARGE INTESTINE AND RECTUM.....153-154,197.5	167	84	83	6.8	7.0	6.5
06 MALIGNANT NEOPLASM OF TRACHEA, BRONCHUS, AND LUNG.....162,197.0,197.3	239	147	92	9.7	12.3	7.3
07 MALIGNANT NEOPLASM OF BREAST.....174-175,198.81	163	*	162	6.6	*	12.7
08 BENIGN NEOPLASMS AND NEOPLASMS OF UNCERTAIN BEHAVIOR AND UNSPECIFIED NATURE.....210-229,235-239	392	72	320	15.9	6.0	25.2
09 ENDOCRINE, NUTRITIONAL AND METABOLIC DISEASES, AND IMMUNITY DISORDERS.....240-279	1,097	453	644	44.5	37.9	50.7
10 DIABETES MELLITUS.....250	438	197	241	17.8	16.5	18.9
11 DISEASES OF THE BLOOD AND BLOOD-FORMING ORGANS.....280-289	318	154	164	12.9	12.9	12.9
12 MENTAL DISORDERS.....290-319	1,514	778	736	61.4	65.1	57.9
13 PSYCHOSES.....290-299	773	351	422	31.3	29.3	33.2
14 ALCOHOL DEPENDENCE SYNDROME.....303	218	165	53	8.8	13.8	4.2
15 DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS.....320-389	819	364	455	33.2	30.5	35.8
16 DISEASES OF THE CENTRAL NERVOUS SYSTEM.....320-336,340-349	341	158	183	13.8	13.2	14.4
17 CATARACT.....366	65	20	44	2.6	1.7	3.5
18 DISEASES OF THE EAR AND MASTOID PROCESS.....380-389	177	87	90	7.2	7.3	7.1
19 DISEASES OF THE CIRCULATORY SYSTEM.....390-459	5,197	2,670	2,527	210.8	223.5	198.8
20 HEART DISEASE.....391-392.0,393-398,402,404,410-416,420-429	3,534	1,892	1,642	143.3	158.4	129.2
21 ACUTE MYOCARDIAL INFARCTION.....410	695	421	274	28.2	35.2	21.6
22 CORONARY ATHEROSCLEROSIS.....414.0	407	282	125	16.5	23.6	9.8
23 OTHER ISCHEMIC HEART DISEASE.....411-413,414.1-414.9	893	471	422	36.2	39.4	33.2
24 CARDIAC DYSRHYTHMIAS.....427	487	220	267	19.7	18.4	21.0
25 CONGESTIVE HEART FAILURE.....428.0	643	304	339	26.1	25.4	26.7
26 CEREBROVASCULAR DISEASE.....430-438	795	344	451	32.3	28.8	35.5
27 DISEASES OF THE RESPIRATORY SYSTEM.....460-519	2,996	1,507	1,489	121.5	126.2	117.2
28 ACUTE RESPIRATORY INFECTIONS, EXCEPT INFLUENZA.....460-466	475	244	230	19.3	20.5	18.1
29 CHRONIC DISEASE OF TONSILS AND ADENOIDS.....474	134	58	76	5.4	4.9	6.0
30 PNEUMONIA, ALL FORMS.....480-486	1,033	544	489	41.9	45.6	38.5
31 ASTHMA.....493	475	204	271	19.3	17.1	21.3
32 DISEASES OF THE DIGESTIVE SYSTEM.....520-579	3,295	1,501	1,794	133.6	125.6	141.1
33 ULCERS OF THE STOMACH AND SMALL INTESTINE.....531-534	256	134	122	10.4	11.2	9.6
34 GASTRITIS AND DUODENITIS.....535	143	58	85	5.8	4.8	6.7
35 APPENDICITIS.....540-543	227	135	92	9.2	11.3	7.3
36 INGUINAL HERNIA.....550	213	193	20	8.6	16.1	1.6
37 NONINFECTIOUS ENTERITIS AND COLITIS.....555-556,558	351	139	212	14.2	11.6	16.7
38 CHOLELITHIASIS.....574	482	132	351	15.6	11.0	27.6
39 DISEASES OF THE GENITOURINARY SYSTEM.....580-629	2,191	851	1,340	88.9	71.2	105.4
40 CALCULUS OF KIDNEY AND URETER.....592	278	180	98	11.3	15.1	7.7
41 HYPERPLASIA OF PROSTATE.....600	249	249	...	10.1	20.8	...
42 COMPLICATIONS OF PREGNANCY, CHILDBIRTH, AND THE PUERPERIUM 1/.....630-676	756	...	756	30.7	...	59.5
43 ABORTIONS AND ECTOPIC AND MOLAR PREGNANCIES.....630-639	229	...	229	9.3	...	18.0
44 DISEASES OF THE SKIN AND SUBCUTANEOUS TISSUE.....680-709	480	238	242	19.5	19.9	19.1
45 DISEASES OF THE MUSCULOSKELETAL SYSTEM AND CONNECTIVE TISSUE.....710-739	1,569	745	825	63.6	62.3	64.9
46 ARTHROPATHIES AND RELATED DISORDERS.....710-719	431	193	237	17.5	16.2	18.7
47 INTERVERTEBRAL DISC DISORDERS.....722	396	219	177	16.1	18.4	13.9
48 CONGENITAL ANOMALIES.....740-759	207	112	95	8.4	9.4	7.5
49 CERTAIN CONDITIONS ORIGINATING IN THE PERINATAL PERIOD.....760-779	152	88	63	6.1	7.4	5.0
50 SYMPTOMS, SIGNS, AND ILL-DEFINED CONDITIONS.....780-799	381	191	190	15.4	16.0	15.0
51 INJURY AND POISONING.....800-999	2,806	1,514	1,292	113.8	126.7	101.7
52 FRACTURES, ALL SITES.....800-829	1,021	480	541	41.4	40.2	42.6
53 FRACTURE OF NECK OF FEMUR.....820	265	61	204	10.8	5.1	16.0
54 SPRAINS AND STRAINS OF BACK (INCLUDING NECK).....846-847	79	39	41	3.2	3.2	3.2
55 INTRACRANIAL INJURIES (EXCLUDING THOSE WITH SKULL FRACTURE).....850-854	186	114	73	7.5	9.5	5.7
56 LACERATIONS AND OPEN WOUNDS.....870-904	224	171	53	9.1	14.3	4.2
57 SUPPLEMENTARY CLASSIFICATIONS.....V01-V82	4,444	214	4,230	180.2	17.9	332.8
58 FEMALES WITH DELIVERIES.....V27	3,937	...	3,937	159.7	...	309.8

1/ FIRST-LISTED DIAGNOSIS FOR FEMALES WITH DELIVERIES IS CODED V27, SHOWN UNDER "SUPPLEMENTARY CLASSIFICATIONS."

TABLE 7. NUMBER OF PATIENTS DISCHARGED FROM SHORT-STAY HOSPITALS, RATE OF DISCHARGES, AND AVERAGE LENGTHS OF STAY, BY SEX, RACE, AND CATEGORY OF FIRST-LISTED DIAGNOSIS: UNITED STATES, 1989--CON.

[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)]

SEX--CON.			RACE												
BOTH SEXES	MALE	FEMALE	ALL RACES	WHITE	ALL OTHER	NOT STATED	ALL RACES	WHITE	ALL OTHER	NOT STATED	ALL RACES	WHITE	ALL OTHER	NOT STATED	
AVERAGE LENGTH OF STAY IN DAYS			NUMBER OF PATIENTS DISCHARGED IN THOUSANDS				RATE OF PATIENTS DISCHARGED PER 10,000 POPULATION				AVERAGE LENGTH OF STAY IN DAYS				
6.5	7.0	6.1	30,947	22,678	4,867	3,402	1,255.2	1,092.0	1,251.8	...	6.5	6.6	6.7	5.4	01
7.7	8.1	7.3	726	495	140	91	29.4	23.8	36.0	...	7.7	7.4	9.3	6.8	02
8.3	8.8	8.0	2,001	1,544	255	202	81.1	74.3	65.6	...	8.3	8.4	9.2	7.2	03
9.2	9.2	9.3	1,608	1,265	184	159	65.2	60.9	47.4	...	9.2	9.2	10.5	8.1	04
14.0	13.1	14.9	167	133	17	17	6.8	6.4	4.3	...	14.0	14.5	13.1	11.1	05
8.6	8.5	8.9	239	194	24	22	9.7	9.3	6.2	...	8.6	8.5	9.3	9.3	06
5.4	*	5.4	163	127	24	14	6.6	6.1	5.6	...	5.4	5.5	5.2	4.5	07
4.7	4.6	4.7	392	279	71	43	15.9	13.4	18.2	...	4.7	4.6	5.7	3.9	08
6.8	6.9	6.8	1,097	778	212	107	44.5	37.4	54.6	...	6.8	6.9	7.2	6.1	09
7.6	7.7	7.4	438	281	112	45	17.8	13.6	28.7	...	7.6	7.7	7.3	7.4	10
6.0	5.9	6.1	318	198	95	24	12.9	9.6	24.5	...	6.0	6.2	5.8	5.4	11
12.7	12.5	13.0	1,514	1,133	260	121	61.4	54.6	66.9	...	12.7	13.0	12.3	10.7	12
14.5	14.0	14.9	773	598	127	48	31.3	28.8	32.6	...	14.5	14.6	14.4	13.2	13
10.6	10.5	11.0	218	163	35	20	8.8	7.8	9.1	...	10.6	11.2	8.7	9.3	14
5.5	5.5	5.6	819	602	116	101	33.2	29.0	29.8	...	5.5	5.6	6.4	4.4	15
8.6	8.7	8.5	341	253	51	36	13.8	12.2	13.1	...	8.6	8.5	9.6	7.8	16
1.5	1.3	1.5	65	49	*6	10	2.6	2.4	*1.4	...	1.5	1.6	*1.3	1.1	17
2.6	2.3	2.9	177	131	25	21	7.2	6.3	6.4	...	2.6	2.5	3.3	2.5	18
7.6	7.4	7.8	5,197	4,128	596	473	210.8	198.8	153.3	...	7.6	7.5	8.6	6.9	19
7.0	6.8	7.2	3,534	2,850	363	321	143.3	137.3	93.2	...	7.0	7.0	7.5	6.6	20
8.6	8.1	9.3	695	571	55	69	28.2	27.5	14.1	...	8.6	8.5	9.6	8.1	21
6.2	6.0	6.6	407	351	25	31	16.5	16.9	6.4	...	6.2	6.2	6.8	5.3	22
5.2	5.2	5.3	893	727	82	84	36.2	35.0	21.0	...	5.2	5.3	4.7	5.3	23
5.8	5.7	5.9	487	396	48	43	19.7	19.1	12.4	...	5.8	5.7	6.8	5.0	24
8.4	7.9	8.8	643	498	87	58	26.1	24.0	22.4	...	8.4	8.4	8.3	8.6	25
10.2	10.3	10.2	795	625	97	73	32.3	30.1	25.0	...	10.2	9.9	13.5	8.7	26
6.7	6.6	6.8	2,996	2,197	499	300	121.5	105.8	128.3	...	6.7	6.9	6.7	5.5	27
4.9	4.5	5.4	475	354	68	53	19.3	17.1	17.5	...	4.9	5.1	4.9	4.1	28
1.2	1.2	1.2	134	110	13	11	5.4	5.3	3.5	...	1.2	1.2	1.3	1.1	29
8.1	7.8	8.4	1,033	760	172	101	41.9	36.6	44.3	...	8.1	8.2	8.0	7.0	30
4.5	3.8	5.0	475	286	140	50	19.3	13.7	35.9	...	4.5	4.9	3.9	3.8	31
6.3	6.0	6.6	3,295	2,492	428	375	133.6	120.0	110.0	...	6.3	6.3	6.7	5.7	32
7.3	6.8	8.0	256	190	40	26	10.4	9.2	10.2	...	7.3	7.7	6.6	6.0	33
4.6	4.1	4.9	143	109	19	14	5.8	5.3	4.9	...	4.6	4.8	4.3	3.3	34
4.9	4.5	5.4	227	159	25	43	9.2	7.7	6.4	...	4.9	4.7	6.3	4.8	35
2.6	2.6	2.5	213	168	18	27	8.6	8.1	4.6	...	2.6	2.6	2.5	2.3	36
5.1	5.8	4.6	351	270	44	38	14.2	13.0	11.2	...	5.1	5.3	5.0	3.9	37
6.3	7.5	5.9	482	373	50	58	19.6	18.0	12.9	...	6.3	6.4	6.7	5.9	38
5.2	5.5	5.1	2,191	1,652	302	237	88.9	79.5	77.8	...	5.2	5.2	6.4	4.1	39
3.0	2.7	3.7	278	230	18	30	11.3	11.1	4.6	...	3.0	3.1	3.6	2.4	40
5.2	5.2	...	249	199	21	28	10.1	9.6	5.4	...	5.2	5.2	6.4	4.2	41
2.8	...	2.8	756	459	206	91	30.7	22.1	53.0	...	2.8	2.6	3.0	3.2	42
2.3	...	2.3	229	143	62	24	9.3	6.9	16.1	...	2.3	2.3	2.4	2.0	43
8.0	7.8	8.3	480	339	86	54	19.5	16.3	22.2	...	8.0	8.2	8.7	6.1	44
6.5	5.9	7.1	1,569	1,251	153	166	63.6	60.2	39.3	...	6.5	6.5	7.1	5.8	45
7.7	6.9	8.4	431	340	38	52	17.5	16.4	9.8	...	7.7	7.8	8.3	7.0	46
5.4	5.0	6.0	396	325	36	36	16.1	15.6	9.3	...	5.4	5.4	6.3	5.1	47
5.9	5.2	6.6	207	140	35	32	8.4	6.7	9.0	...	5.9	5.8	5.7	6.1	48
11.3	10.3	12.8	152	91	33	28	6.1	4.4	8.6	...	11.3	11.0	13.0	10.3	49
3.3	3.2	3.3	381	265	60	55	15.4	12.8	15.4	...	3.3	3.2	3.7	2.9	50
6.8	6.3	7.4	2,806	2,058	450	298	113.8	99.1	115.7	...	6.8	6.9	7.0	5.9	51
8.5	7.5	9.4	1,021	784	136	101	41.4	37.8	35.0	...	8.5	8.8	7.7	7.0	52
13.2	13.8	13.0	265	232	13	21	10.8	11.2	3.3	...	13.2	13.4	12.4	10.8	53
4.5	4.1	4.8	79	63	*8	*8	3.2	3.0	*2.2	...	4.5	4.2	*6.2	*4.3	54
7.0	8.2	5.0	186	134	33	19	7.5	6.5	8.4	...	7.0	6.7	7.2	8.9	55
3.7	3.7	3.8	224	131	67	26	9.1	6.3	17.3	...	3.7	3.4	4.2	4.0	56
3.2	5.9	3.1	4,444	2,857	940	647	180.2	137.6	241.8	...	3.2	3.4	3.2	2.6	57
2.9	...	2.9	3,937	2,469	869	599	159.7	118.9	223.5	...	2.9	3.0	3.1	2.5	58

TABLE 8. NUMBER OF PATIENTS DISCHARGED FROM SHORT-STAY HOSPITALS, RATE OF DISCHARGES, AND AVERAGE LENGTHS OF STAY, BY GEOGRAPHIC REGION AND CATEGORY OF FIRST-LISTED DIAGNOSIS: UNITED STATES, 1989

[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	UNITED STATES	NORTH-EAST	MIDWEST	SOUTH	WEST
	NUMBER OF PATIENTS DISCHARGED IN THOUSANDS				
01 ALL CONDITIONS.....	30,947	7,044	7,676	10,960	5,268
02 INFECTIOUS AND PARASITIC DISEASES.....001-139	726	167	161	266	132
03 NEOPLASMS.....140-239	2,001	523	485	666	327
04 MALIGNANT NEOPLASMS.....140-208,230-234	1,608	410	401	538	259
05 MALIGNANT NEOPLASM OF LARGE INTESTINE AND RECTUM.....153-154,197.5	167	46	39	57	25
06 MALIGNANT NEOPLASM OF TRACHEA, BRONCHUS, AND LUNG.....162,197.0,197.3	239	52	60	97	30
07 MALIGNANT NEOPLASM OF BREAST.....174-175,198.81	163	42	41	55	24
08 BENIGN NEOPLASMS AND NEOPLASMS OF UNCERTAIN BEHAVIOR AND UNSPECIFIED NATURE.....210-229,235-239	392	113	84	128	68
09 ENDOCRINE, NUTRITIONAL AND METABOLIC DISEASES, AND IMMUNITY DISORDERS.....240-279	1,097	226	291	421	159
10 DIABETES MELLITUS.....250	438	91	115	163	70
11 DISEASES OF THE BLOOD AND BLOOD-FORMING ORGANS.....280-289	318	77	75	112	54
12 MENTAL DISORDERS.....290-319	1,514	457	413	442	203
13 PSYCHOSES.....290-299	773	260	198	212	102
14 ALCOHOL DEPENDENCE SYNDROME.....303	218	54	66	71	28
15 DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS.....320-389	819	219	187	282	131
16 DISEASES OF THE CENTRAL NERVOUS SYSTEM.....320-336,340-349	341	70	89	130	52
17 CATARACT.....366	65	31	37	16	11
18 DISEASES OF THE EAR AND MASTOID PROCESS.....380-389	177	63	39	51	24
19 DISEASES OF THE CIRCULATORY SYSTEM.....390-459	5,197	1,217	1,367	1,798	815
20 HEART DISEASE.....391-392.0,393-398,402,404,410-416,420-429	3,534	851	933	1,183	566
21 ACUTE MYOCARDIAL INFARCTION.....410	695	168	182	223	122
22 CORONARY ATHEROSCLEROSIS.....414.0	407	90	132	126	59
23 OTHER ISCHEMIC HEART DISEASE.....411-413,414.1-414.9	893	228	225	297	142
24 CARDIAC DYSRHYTHMIAS.....427	487	107	117	179	84
25 CONGESTIVE HEART FAILURE.....428.0	643	149	179	220	95
26 CEREBROVASCULAR DISEASE.....430-438	795	179	207	290	119
27 DISEASES OF THE RESPIRATORY SYSTEM.....460-519	2,996	630	791	1,088	488
28 ACUTE RESPIRATORY INFECTIONS, EXCEPT INFLUENZA.....460-466	475	94	132	174	75
29 CHRONIC DISEASE OF TONSILS AND ADENOIDS.....474	134	49	32	39	14
30 PNEUMONIA, ALL FORMS.....480-486	1,033	188	273	396	176
31 ASTHMA.....493	475	109	136	145	85
32 DISEASES OF THE DIGESTIVE SYSTEM.....520-579	3,295	722	822	1,195	555
33 ULCERS OF THE STOMACH AND SMALL INTESTINE.....531-534	256	47	54	102	53
34 GASTRITIS AND DUODENITIS.....535	143	28	36	61	17
35 APPENDICITIS.....540-543	227	39	57	76	55
36 INGUINAL HERNIA.....550	213	72	51	66	24
37 NONINFECTIOUS ENTERITIS AND COLITIS.....555-556,558	351	70	96	131	54
38 CHOLELITHIASIS.....574	482	96	130	169	87
39 DISEASES OF THE GENITOURINARY SYSTEM.....580-629	2,191	445	544	851	351
40 CALCULUS OF KIDNEY AND URETER.....592	278	54	75	116	33
41 HYPERPLASIA OF PROSTATE.....600	249	50	67	84	48
42 COMPLICATIONS OF PREGNANCY, CHILDBIRTH, AND THE PUERPERIUM 1/.....630-676	756	171	185	287	112
43 ABORTIONS AND ECTOPIC AND MOLAR PREGNANCIES.....630-639	229	63	46	90	31
44 DISEASES OF THE SKIN AND SUBCUTANEOUS TISSUE.....680-709	480	119	123	162	75
45 DISEASES OF THE MUSCULOSKELETAL SYSTEM AND CONNECTIVE TISSUE.....710-739	1,569	344	380	592	253
46 ARTHROPATHIES AND RELATED DISORDERS.....710-719	431	101	104	139	87
47 INTERVERTEBRAL DISC DISORDERS.....722	396	71	105	167	53
48 CONGENITAL ANOMALIES.....740-759	207	65	43	52	47
49 CERTAIN CONDITIONS ORIGINATING IN THE PERINATAL PERIOD.....760-779	152	28	38	45	42
50 SYMPTOMS, SIGNS, AND ILL-DEFINED CONDITIONS.....780-799	381	77	89	136	79
51 INJURY AND POISONING.....800-999	2,806	611	671	1,036	488
52 FRACTURES, ALL SITES.....800-829	1,021	227	260	353	182
53 FRACTURE OF NECK OF FEMUR.....820	265	60	67	95	44
54 SPRAINS AND STRAINS OF BACK (INCLUDING NECK).....846-847	79	14	20	37	38
55 INTRACRANIAL INJURIES (EXCLUDING THOSE WITH SKULL FRACTURE).....850-854	186	42	50	65	29
56 LACERATIONS AND OPEN WOUNDS.....870-904	224	48	45	94	37
57 SUPPLEMENTARY CLASSIFICATIONS.....V01-V82	4,444	945	1,011	1,530	957
58 FEMALES WITH DELIVERIES.....V27	3,937	758	860	1,435	884

1/ FIRST-LISTED DIAGNOSIS FOR FEMALES WITH DELIVERIES IS CODED V27, SHOWN UNDER "SUPPLEMENTARY CLASSIFICATIONS."

TABLE 8. NUMBER OF PATIENTS DISCHARGED FROM SHORT-STAY HOSPITALS, RATE OF DISCHARGES, AND AVERAGE LENGTHS OF STAY, BY GEOGRAPHIC REGION AND CATEGORY OF FIRST-LISTED DIAGNOSIS: UNITED STATES, 1989 —CON.

[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)]

UNITED STATES	NORTH-EAST	MIDWEST	SOUTH	WEST	UNITED STATES	NORTH-EAST	MIDWEST	SOUTH	WEST	
RATE OF PATIENTS DISCHARGED PER 10,000 POPULATION					AVERAGE LENGTH OF STAY IN DAYS					
1,255.2	1,390.5	1,279.1	1,294.6	1,028.1	6.5	7.7	6.4	6.3	5.4	01
29.4	32.9	26.9	31.4	25.7	7.7	10.2	6.9	6.9	6.8	02
81.1	103.2	80.8	78.7	63.8	8.3	9.9	7.9	8.2	7.0	03
65.2	81.0	66.8	63.5	50.6	9.2	11.3	8.5	8.9	7.8	04
6.8	9.0	6.5	6.7	5.0	14.0	16.2	11.8	15.3	10.5	05
9.7	10.3	10.0	11.4	5.9	8.6	10.3	9.5	7.7	6.9	06
6.6	8.3	6.9	6.5	4.8	5.4	5.3	4.8	6.4	4.5	07
15.9	22.2	14.0	15.1	13.2	4.7	4.7	4.8	5.0	3.5	08
44.5	44.6	48.5	49.7	31.0	6.8	9.6	6.5	6.1	5.5	09
17.8	17.9	19.1	19.3	13.6	7.6	10.4	7.1	6.7	6.7	10
12.9	15.2	12.5	13.3	10.5	6.0	7.1	5.7	6.1	4.7	11
61.4	90.3	68.7	52.2	39.5	12.7	12.9	12.6	13.3	11.2	12
31.3	51.3	33.0	25.1	19.9	14.5	15.0	14.2	15.3	12.0	13
8.8	10.6	10.9	8.4	5.4	10.6	8.4	10.5	11.3	13.4	14
33.2	43.2	31.2	33.3	25.6	5.5	5.5	5.9	5.6	5.0	15
13.8	13.8	14.8	15.4	10.1	8.6	10.4	8.6	7.8	8.2	16
2.6	6.1	*1.2	1.9	2.1	1.5	1.2	*3.7	1.2	1.0	17
7.2	12.5	6.5	6.0	4.7	2.6	2.7	2.5	2.8	2.2	18
210.8	240.2	227.8	212.4	159.2	7.6	9.1	7.0	7.5	6.3	19
143.2	168.0	155.5	139.7	110.5	7.0	8.2	6.7	6.8	6.0	20
28.2	33.2	30.4	26.3	23.7	8.6	9.8	8.0	8.7	7.4	21
16.5	17.8	22.0	14.9	11.5	6.2	6.6	6.2	6.2	5.6	22
36.2	45.0	37.6	35.1	27.7	5.2	6.0	4.7	5.1	4.8	23
19.7	21.0	19.5	21.1	16.4	5.8	6.9	5.6	5.9	4.2	24
26.1	29.4	29.8	26.0	18.5	8.4	10.7	7.9	7.6	7.4	25
32.3	35.3	34.5	34.3	23.2	10.2	13.1	8.3	10.8	7.9	26
121.5	124.4	131.8	128.5	95.2	6.7	7.7	6.2	6.7	6.2	27
19.3	18.6	22.0	20.5	14.6	4.9	5.9	4.6	4.7	4.7	28
5.4	9.7	5.4	4.6	2.8	1.2	1.1	1.3	1.2	1.1	29
41.9	37.0	45.5	46.8	34.4	8.1	10.1	8.1	7.8	6.5	30
19.3	21.5	22.7	17.1	16.6	4.5	5.2	4.1	4.8	3.7	31
133.6	142.6	137.0	141.2	108.4	6.3	7.3	6.0	6.1	5.8	32
10.4	9.3	9.0	12.0	10.4	7.3	10.3	7.4	6.8	5.8	33
5.8	5.6	6.0	7.2	3.3	4.6	5.1	4.5	4.5	4.0	34
9.2	7.7	9.5	7.0	10.8	4.9	6.2	5.0	4.4	4.5	35
8.6	14.3	8.5	7.8	4.6	2.6	2.5	2.7	2.6	2.4	36
14.2	13.8	16.1	15.5	10.5	5.1	6.2	4.0	5.6	4.3	37
19.6	19.0	21.6	20.0	16.9	6.3	7.9	6.1	6.1	5.5	38
88.9	87.9	90.6	100.5	68.6	5.2	6.1	5.4	5.2	4.0	39
11.3	10.7	12.5	13.7	6.5	3.0	3.4	2.9	3.2	2.3	40
10.1	9.9	11.2	9.9	9.3	5.2	6.5	5.0	5.3	4.0	41
30.7	33.8	30.8	33.9	22.0	2.8	2.9	2.6	3.1	2.3	42
9.3	12.5	7.6	10.6	6.0	2.3	2.0	2.4	2.5	2.2	43
19.5	23.5	20.6	19.2	14.6	8.0	9.3	8.0	7.9	6.5	44
63.6	67.9	63.4	70.0	49.3	6.5	7.1	6.9	6.3	5.7	45
17.5	19.9	17.3	16.4	17.1	7.7	7.9	8.4	8.0	6.1	46
16.1	14.1	17.5	19.7	10.3	5.4	5.9	5.2	5.5	5.0	47
8.4	12.9	7.2	6.1	9.2	5.9	5.5	6.7	6.3	5.0	48
6.1	5.4	6.3	5.3	8.2	11.3	14.4	10.1	10.4	11.5	49
15.4	15.2	14.9	16.0	15.3	3.3	3.3	2.9	3.5	3.2	50
113.8	120.6	111.8	122.4	95.2	6.8	8.1	6.7	6.4	6.2	51
41.4	44.7	43.2	41.7	35.5	8.5	10.7	8.5	7.6	7.5	52
10.8	11.8	11.1	11.2	8.7	13.2	18.4	11.0	12.3	11.3	53
3.2	2.8	3.3	4.4	*1.6	4.5	4.7	4.5	4.3	*4.8	54
7.5	8.3	8.3	7.7	5.7	7.0	6.7	6.0	5.7	12.0	55
9.1	9.5	7.5	11.2	7.2	3.7	3.9	3.4	3.7	4.0	56
180.2	186.6	168.5	180.7	186.9	3.2	3.8	3.6	3.0	2.5	57
159.7	149.7	143.3	169.5	172.5	2.9	3.5	2.9	3.0	2.3	58

Table 9. Number of all-listed diagnoses for patients discharged from short-stay hospitals, by age, sex, race, and geographic region, by diagnostic category: United States, 1989
 [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)*]

Diagnostic category and ICD-9-CM code	All diagnoses	Age				Sex		Race			Region			
		Under 15 years	15-44 years	45-64 years	65 years and over	Male	Female	White	All other	Not stated	North-east	Mid-west	South	West
Number of all-listed diagnoses in thousands														
All conditions	101,974	5,893	30,743	21,052	44,286	41,626	60,349	76,218	15,627	10,130	23,610	26,114	35,394	16,857
Infectious and parasitic diseases 001-139	2,893	465	850	477	1,100	1,282	1,610	2,022	557	314	628	730	1,029	506
Neoplasms 140-239	4,431	106	674	1,407	2,244	1,974	2,456	3,495	532	404	1,209	1,204	1,404	614
Malignant neoplasms 140-208, 230, 234	3,589	85	350	1,131	2,022	1,778	1,811	2,882	392	315	983	1,003	1,119	484
Malignant neoplasm of large intestine and rectum 153-154, 197.5	240	*	*8	61	171	119	121	193	27	21	71	61	76	34
Malignant neoplasm of trachea, bronchus, and lung 162, 197.0, 197.3	559	*	25	210	322	324	235	458	52	49	142	158	195	64
Malignant neoplasm of breast 174-175, 198.81	241	*	27	98	116	*	239	190	30	20	60	72	80	29
Benign neoplasms and neoplasms of uncertain behavior and unspecified nature 210-229, 235-239	842	21	324	276	221	196	646	614	139	89	226	201	285	129
Endocrine, nutritional and metabolic diseases and immunity disorders 240-279	8,418	353	1,269	2,208	4,588	3,388	5,030	6,319	1,367	732	1,912	2,242	2,984	1,280
Diabetes mellitus 250	2,930	31	384	878	1,637	1,283	1,647	2,112	547	270	689	758	1,053	430
Diseases of the blood and blood-forming organs 280-289	2,808	170	682	556	1,400	1,152	1,656	1,944	596	268	681	682	998	446
Mental disorders 290-319	4,727	123	2,342	963	1,299	2,349	2,378	3,491	851	385	1,246	1,298	1,493	690
Psychoses 290-299	1,568	17	581	307	663	695	873	1,226	234	109	450	418	471	229
Alcohol dependence syndrome 303	667	*	380	203	83	499	168	442	168	57	174	186	208	99
Diseases of the nervous system and sense organs 320-389	3,234	578	628	610	1,419	1,566	1,668	2,429	484	321	785	834	1,089	526
Diseases of the central nervous system 320-336, 340-349	1,563	155	334	284	790	758	805	1,204	219	139	350	424	536	253
Cataract 366	102	*	*	16	81	37	65	78	10	14	39	19	30	14
Diseases of the ear and mastoid process 380-389	591	349	74	64	104	325	266	425	99	67	162	152	179	98
Diseases of the circulatory system 390-459	20,236	106	1,244	5,096	13,791	9,912	10,324	16,223	2,361	1,652	4,924	5,365	6,918	3,029
Heart disease 391-392.0, 393-398, 402, 404, 410-416, 420-429	13,060	68	655	3,168	9,169	6,661	6,399	10,692	1,304	1,064	3,242	3,417	4,362	2,040
Acute myocardial infarction 410	798	*	46	271	480	474	323	659	63	75	194	211	258	134
Coronary atherosclerosis 414.0	2,126	*	63	588	1,472	1,194	932	1,820	147	158	539	607	656	324
Other ischemic heart disease 411-413, 414.1-414.9	2,629	*	112	868	1,648	1,460	1,169	2,202	213	214	706	698	850	374
Cardiac dysrhythmias 427	2,725	21	158	502	2,044	1,350	1,376	2,227	263	235	644	676	925	481
Congestive heart failure 428.0	1,817	11	48	288	1,469	807	1,010	1,464	205	148	429	496	630	262
Cerebrovascular disease 430-438	1,655	10	59	289	1,296	731	923	1,303	201	150	358	449	621	227
Diseases of the respiratory system 460-519	8,053	1,233	1,177	1,595	4,049	4,095	3,958	6,158	1,137	758	1,759	2,085	2,878	1,332
Acute respiratory infections, except influenza 460-466	909	353	157	127	273	444	466	660	146	104	179	246	333	152
Chronic diseases of tonsils and adenoids 474	189	134	51	*	*	88	102	155	19	15	65	48	57	20
Pneumonia, all forms 480-486	1,552	282	198	231	841	817	735	1,147	259	146	298	403	600	252
Asthma 493	835	240	217	172	206	337	498	533	212	91	197	226	261	151
Diseases of the digestive system 520-579	7,664	432	1,854	1,936	3,442	3,470	4,194	5,874	1,004	786	1,771	1,938	2,728	1,227
Ulcers of the stomach and small intestine 531-534	520	*	81	148	289	268	253	401	74	45	108	131	188	93
Gastritis and duodenitis 535	503	13	144	125	222	232	272	384	73	46	103	130	198	72
Appendicitis 540-543	266	65	152	35	15	150	116	192	29	45	47	72	89	59
Inguinal hernia 550	282	40	51	68	123	256	26	226	24	33	94	71	85	33

Table 9. Number of all-listed diagnoses for patients discharged from short-stay hospitals, by age, sex, race, and geographic region, by diagnostic category: United States, 1989—Con.

[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)*]

Diagnostic category and ICD-9-CM code	All diagnoses	Age				Sex		Race			Region			
		Under 15 years	15-44 years	45-64 years	65 years and over	Male	Female	White	All other	Not stated	North-east	Mid-west	South	West
Number of all-listed diagnoses in thousands														
Noninfectious enteritis and colitis 555-556, 558	630	135	204	111	180	256	374	479	87	65	140	171	228	90
Cholelithiasis 574	774	*	229	233	310	242	531	607	75	91	170	212	266	126
Diseases of the genitourinary system 580-629	7,020	152	2,369	1,522	2,978	2,533	4,487	5,264	1,060	696	1,530	1,768	2,577	1,146
Calculus of kidney and ureter 592	358	*	165	121	70	215	143	298	23	36	72	100	140	44
Hyperplasia of prostate 600	414	-	*	87	324	414	...	333	38	43	89	114	135	75
Complications of pregnancy, childbirth, and the puerperium ¹ 630-676	7,472	19	7,447	*7	...	...	7,472	4,598	1,793	1,081	1,546	1,601	2,677	1,648
Abortions and ectopic and molar pregnancies 630-639	270	*	267	*	...	...	270	172	73	26	71	54	107	38
Diseases of the skin and subcutaneous tissue 680-709	1,310	94	316	304	596	619	691	958	227	125	338	346	427	198
Diseases of the musculoskeletal system and connective tissue 710-739	3,994	88	1,002	1,060	1,844	1,602	2,392	3,225	400	369	890	1,054	1,422	628
Arthropathies and related disorders 710-719	1,488	29	247	329	883	549	939	1,183	160	145	336	406	497	249
Intervertebral disc disorders 722	541	*	247	205	88	282	259	448	46	46	96	147	226	73
Congenital anomalies 740-759	640	371	136	78	56	326	313	444	95	101	191	146	163	140
Certain conditions originating in the perinatal period 760-779	375	349	*	12	11	215	159	224	88	63	72	98	99	105
Symptoms, signs, and ill-defined conditions 780-799	5,112	459	1,255	1,275	2,122	2,363	2,749	3,810	779	522	1,091	1,362	1,818	842
Injury and poisoning 800-999	5,939	582	2,431	1,082	1,844	3,262	2,677	4,424	900	615	1,373	1,464	2,051	1,050
Fractures, all sites 800-829	1,527	152	548	249	578	765	762	1,185	192	150	338	394	524	271
Fracture of neck of femur 820	292	*	13	29	245	72	220	254	15	22	66	74	101	50
Sprains and strains of back (including neck) 846-847	138	*	78	36	20	64	74	108	18	12	32	33	58	15
Intracranial injuries (excluding those with skull fractures) 850-854	261	62	132	24	43	162	100	190	46	25	57	77	87	40
Lacerations and open wounds 870-904	598	66	366	70	75	430	168	386	149	63	138	135	219	107
Supplementary classifications V01-V82	7,659	214	5,065	867	1,504	1,517	6,133	5,314	1,395	940	1,663	1,896	2,639	1,451
Females with deliveries V27	3,937	*9	3,926	*	...	...	3,937	2,469	869	599	758	860	1,435	884

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

TABLE 10. NUMBER OF ALL-LISTED PROCEDURES FOR PATIENTS DISCHARGED FROM SHORT-STAY HOSPITALS, BY AGE AND PROCEDURE CATEGORY: UNITED STATES, 1989

(DISCHARGES FROM NON-FEDERAL HOSPITALS. EXCLUDES NEWBORN INFANTS. GROUPINGS OF PROCEDURES BY ANATOMICAL SYSTEMS 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 1/	ALL AGES	UNDER 15 YEARS	15-44 YEARS	45-64 YEARS	65 YEARS AND OVER
NUMBER OF ALL-LISTED PROCEDURES IN THOUSANDS					
ALL PROCEDURES.....	40,043	2,150	15,805	8,865	13,223
OPERATIONS ON THE NERVOUS SYSTEM.....01-05	909	226	288	198	198
SPINAL TAP.....03-31	377	172	97	47	61
OPERATIONS ON THE ENDOCRINE SYSTEM.....06-07	113	*	42	45	25
OPERATIONS ON THE EYE.....08-16	448	28	99	100	220
EXTRACTION OF LENS.....13-1-13-6	79	*	*	13	60
INSERTION OF PROSTHETIC LENS (PSEUDOPHAKOS).....13-7	72	-	*	13	56
OPERATIONS ON THE EAR.....18-20	168	96	39	17	16
OPERATIONS ON THE NOSE, MOUTH, AND PHARYNX.....21-29	734	181	313	136	104
RHINOPLASTY AND REPAIR OF NOSE.....21-8	90	45	59	15	10
TONSILLECTOMY WITH OR WITHOUT ADENOIDECTOMY.....28-2-28-3	155	103	48	*	*
OPERATIONS ON THE RESPIRATORY SYSTEM.....30-34	1,051	81	194	307	470
BRONCHOSCOPY.....33-21-33-23	137	20	24	37	56
OPERATIONS ON THE CARDIOVASCULAR SYSTEM.....35-39	3,722	150	436	1,320	1,815
REMOVAL OF CORONARY ARTERY OBSTRUCTION.....36-0	259	*	19	133	107
CORONARY ARTERY BYPASS GRAFT.....36-1	368	*	12	165	191
CARDIAC CATHETERIZATION.....37-21-37-23	958	23	95	425	414
PACEMAKER INSERTION, REPLACEMENT, REMOVAL, AND REPAIR.....37-7-37-8	275	*	10	43	221
OPERATIONS ON THE HEMIC AND LYMPHATIC SYSTEM.....40-41	385	20	82	105	178
OPERATIONS ON THE DIGESTIVE SYSTEM.....42-54	5,360	226	1,546	1,310	2,278
ESOPHAGOSCOPY AND GASTROSCOPY (NATURAL ORIFICE).....42-23,44-13	91	49	20	18	44
PARTIAL GASTRECTOMY AND RESECTION OF INTESTINE.....43-5-43-8,45-6-45-8	294	*	35	80	176
COLONOSCOPY AND SIGMOIDOSCOPY.....45-23-45-24	409	*	65	93	247
APPENDECTOMY, EXCLUDING INCIDENTAL.....47-0	253	61	149	29	15
HEMORRHOIDECTOMY.....49-43-49-46	75	-	28	32	15
CHOLECYSTECTOMY.....51-2	504	*	179	162	160
REPAIR OF INGUINAL HERNIA.....53-0-53-1	243	33	50	62	98
DIVISION OF PERITONEAL ADHESIONS.....54-5	329	*	164	67	95
OPERATIONS ON THE URINARY SYSTEM.....55-59	1,594	43	384	386	781
ENDOSCOPIES THROUGH NATURAL ORIFICE.....55-21-55-22,56-31,57-32,58-22	530	48	93	135	294
OPERATIONS ON THE MALE GENITAL ORGANS.....60-64	648	49	48	129	421
PROSTATECTOMY.....60-2-60-6	376	...	*	71	304
OPERATIONS ON THE FEMALE GENITAL ORGANS.....65-71	2,385	48	1,683	470	225
OOPHORECTOMY AND SALPINGO-COPHORECTOMY.....65-3-65-6	421	*	228	144	48
BILATERAL DESTRUCTION OR OCCLUSION OF FALLOPIAN TUBES.....66-2-66-3	389	-	386	*	...
HYSTERECTOMY.....68-3-68-7	541	*	317	165	58
DILATION AND CURETTAGE OF UTERUS.....69-0	265	*	209	42	13
REPAIR OF CYSTOCELE AND RECTOCELE.....70-5	135	-	38	52	46
OBSTETRICAL PROCEDURES.....72-75	6,383	12	6,368	*	-
EPISIOTOMY WITH OR WITHOUT FORCEPS OR VACUUM EXTRACTION.....72-1,72-21,72-31,72-71,73-6	1,704	45	1,698	*	-
CESAREAN SECTION.....74-0-74-2,74-4,74-99	938	*	936	*	-
REPAIR OF CURRENT OBSTETRIC LACERATION.....75-5-75-6	762	*	760	*	-
OPERATIONS ON THE MUSCULOSKELETAL SYSTEM.....76-84	3,171	215	1,320	755	881
OPEN REDUCTION OF FRACTURE, EXCEPT JAW.....76-79,79-2-79-3,79-5-79-6	479	34	175	92	178
OTHER REDUCTION OF FRACTURE, EXCEPT JAW.....76-70,76-78,79-0-79-1,79-4	192	49	61	32	50
EXCISION OR DESTRUCTION OF INTERVERTEBRAL DISC AND SPINAL FUSION.....80-5,81-0	355	45	186	128	36
ARTHROPLASTY AND REPLACEMENT OF KNEE.....1/ 81-41-81-47,81-54-81-55	228	*	91	41	93
OPERATIONS ON MUSCLES, TENDONS, FASCIA, AND BURSA.....82-83-1,83-3-83-9	312	39	131	90	52
OPERATIONS ON THE INTEGUMENTARY SYSTEM.....85-86	1,428	94	526	380	427
MASTECTOMY.....85-4	120	*	14	48	58
OR SUBCUTANEOUS TISSUE.....86-2-86-4	542	34	197	131	180
EXCISION OR DESTRUCTION OF LESION OR TISSUE OF SKIN SKIN GRAFT (EXCEPT LIP OR MOUTH).....86-6-86-7	124	12	45	28	39
MISCELLANEOUS DIAGNOSTIC AND THERAPEUTIC PROCEDURES.....87-99	11,544	719	2,436	3,204	5,186
COMPUTERIZED AXIAL TOMOGRAPHY (CAT SCAN).....87-03,87-41,87-71,88-01,88-38	1,519	83	354	355	727
PYELOGRAM.....87-73-87-75	288	49	110	75	93
ARTERIOGRAPHY AND ANGIOCARDIOGRAPHY USING CONTRAST MATERIAL.....88-4-88-5	1,620	30	184	685	721
DIAGNOSTIC ULTRASOUND.....88-7	1,558	82	465	379	633
CIRCULATORY MONITORING.....89-6	779	32	129	189	430
RADIOISOTOPE SCAN.....92-0-92-1	635	20	119	187	310

1/ INCLUDES ADDENDA TO THE ICD-9-CM EFFECTIVE OCTOBER 1, 1989

NOTE: SEE "MEDICAL CODING AND EDIT," APPENDIX I, FOR CODING MODIFICATIONS FOR THE NATIONAL HOSPITAL DISCHARGE SURVEY.

TABLE 11. RATE OF ALL-LISTED PROCEDURES FOR PATIENTS DISCHARGED FROM SHORT-STAY HOSPITALS, BY AGE AND PROCEDURE CATEGORY: UNITED STATES, 1989

[DISCHARGES FROM NON-FEDERAL HOSPITALS. EXCLUDES NEWBORN INFANTS. GROUPINGS OF PROCEDURES BY ANATOMICAL SYSTEMS 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 1/	ALL AGES	UNDER 15 YEARS	15-44 YEARS	45-64 YEARS	65 YEARS AND OVER
RATE OF ALL-LISTED PROCEDURES PER 100,000 POPULATION					
ALL PROCEDURES.....	16,241.1	3,987.7	13,719.3	19,083.7	42,677.0
OPERATIONS ON THE NERVOUS SYSTEM.....C1-05	368.8	419.8	249.7	425.5	638.1
SPINAL TAP.....03.31	153.1	319.5	84.5	101.4	196.1
OPERATIONS ON THE ENDOCRINE SYSTEM.....06-07	46.0	*	36.7	96.5	79.1
OPERATIONS ON THE EYE.....08-16	181.6	52.0	86.4	216.2	709.7
EXTRACTION OF LENS.....13.1-13.6	32.1	*	*	29.0	194.6
INSERTION OF PROSTHETIC LENS (PSEUDOPHAKOS).....13.7	29.1	-	*	27.0	181.9
OPERATIONS ON THE EAR.....18-20	68.2	177.9	34.2	36.5	51.0
OPERATIONS ON THE NOSE, MOUTH, AND PHARYNX.....21-29	297.8	335.9	271.7	292.3	336.5
RHINOPLASTY AND REPAIR OF NOSE.....21.8	36.4	*8.7	51.6	32.9	33.5
TONSILLECTOMY WITH OR WITHOUT ADENOIDECTOMY.....28.2-28.3	62.9	190.5	41.2	*	*
OPERATIONS ON THE RESPIRATORY SYSTEM.....30-34	426.2	149.7	168.0	660.8	1,515.7
BRONCHOSCOPY.....33.21-33.23	55.6	37.2	20.5	79.8	181.9
OPERATIONS ON THE CARDIOVASCULAR SYSTEM.....35-39	1,509.4	278.8	378.9	2,840.7	5,858.6
REMOVAL OF CORONARY ARTERY OBSTRUCTION.....36.0	105.0	*	16.4	285.9	345.5
CORONARY ARTERY BYPASS GRAFT.....36.1	149.3	*	10.4	355.5	615.2
CARDIAC CATHETERIZATION.....37.21-37.23	388.4	41.8	82.9	915.6	1,337.4
PACEMAKER INSERTION, REPLACEMENT, REMOVAL, AND REPAIR.....37.7-37.8	111.5	*	8.9	93.2	712.3
OPERATIONS ON THE HEMIC AND LYMPHATIC SYSTEM.....40-41	156.1	37.0	71.4	225.9	573.7
OPERATIONS ON THE DIGESTIVE SYSTEM.....42-54	2,174.0	419.2	1,341.8	2,820.2	7,352.7
ESOPHAGOSCOPY AND GASTROSCOPY (NATURAL ORIFICE).....42.23,44.13	37.0	*16.8	17.4	38.9	142.7
PARTIAL GASTRECTOMY AND RESECTION OF INTESTINE.....43.5-43.8,45.6-45.8	119.2	*	30.1	171.5	568.7
COLONOSCOPY AND SIGMOIDOSCOPY.....45.23-45.24	165.7	*	56.2	200.7	798.2
APPENDECTOMY, EXCLUDING INCIDENTAL.....47.0	102.5	112.7	129.1	61.6	47.4
HEMORRHOIDECTOMY.....49.43-49.46	30.6	-	24.1	69.5	49.6
CHOLECYSTECTOMY.....51.2	204.2	*	155.6	349.7	516.4
REPAIR OF INGUINAL HERNIA.....53.0-53.1	98.6	61.6	43.1	133.9	316.8
DIVISION OF PERITONEAL ADHESIONS.....54.5	133.4	*	142.0	143.7	30 *
OPERATIONS ON THE URINARY SYSTEM.....55-59	646.7	79.9	333.7	831.2	2,520.0
ENDOSCOPIES THROUGH NATURAL CRIFICE.....55.21-55.22,56.31,57.32,58.22	214.8	*14.2	81.0	290.6	947.8
OPERATIONS ON THE MALE GENITAL ORGANS.....60-64	262.8	91.5	41.9	278.6	1,358.5
PROSTATECTOMY.....60.2-60.6	152.6	...	*	152.7	982.7
OPERATIONS ON THE FEMALE GENITAL ORGANS.....65-71	967.5	*14.5	1,460.6	1,012.3	725.3
OPHORECTOMY AND SALPINGO-COPHORECTOMY.....65.3-65.6	170.6	*	197.8	309.1	156.1
BILATERAL DESTRUCTION OR OCCLUSION OF FALLOPIAN TUBES.....66.2-66.3	157.6	-	335.3	*	...
HYSTERECTOMY.....68.3-68.7	219.3	*	275.2	355.2	188.3
DILATION AND CURETTAGE OF UTERUS.....69.0	107.3	*	181.7	89.7	42.3
REPAIR OF CYSTOCELE AND RECTOCELE.....70.5	54.8	-	32.6	111.1	148.3
OBSTETRICAL PROCEDURES.....72-75	2,588.8	22.9	5,527.6	*	...
EPISIOTOMY WITH OR WITHOUT FORCEPS OR VACUUM EXTRACTION.....72.1,72.21,72.31,72.71,73.6	691.0	*9.3	1,474.0	*	...
CESAREAN SECTION.....74.0-74.2,74.4,74.99	380.4	*	812.3	*	...
REPAIR OF CURRENT OBSTETRIC LACERATION.....75.5-75.6	309.1	*	659.7	*	...
OPERATIONS ON THE MUSCULOSKELETAL SYSTEM.....76-84	1,286.1	398.1	1,146.1	1,625.9	2,841.8
OPEN REDUCTION OF FRACTURE, EXCEPT JAW.....76.79,79.2-79.3,79.5-79.6	194.2	62.7	151.7	199.0	573.8
OTHER REDUCTION OF FRACTURE, EXCEPT JAW.....76.70,76.78,79.0-79.1,79.4	77.9	91.4	53.2	68.2	161.2
EXCISION OR DESTRUCTION OF INTERVERTEBRAL DISC AND SPINAL FUSION.....80.5,81.0	144.1	*9.7	161.6	275.2	116.1
ARTHROPLASTY AND REPLACEMENT OF KNEE.....81.41-81.47,81.54-81.55	92.7	*	78.8	89.3	299.9
OPERATIONS ON MUSCLES, TENDONS, FASCIA, AND BURSA.....82-83.1,83.3-83.9	126.3	72.2	113.8	193.2	167.0
OPERATIONS ON THE INTEGUMENTARY SYSTEM.....85-86	579.1	174.8	456.5	818.7	1,379.2
MASTECTOMY.....85.4	48.9	*	12.1	103.5	188.3
OR SUBCUTANEOUS TISSUE.....86.2-86.4	219.7	62.2	171.3	281.9	580.3
EXCISION OR DESTRUCTION OF LESION OR TISSUE OF SKIN					
SKIN GRAFT (EXCEPT LIP OR MOUTH).....86.6-86.7	50.4	22.5	39.2	59.9	126.8
MISCELLANEOUS DIAGNOSTIC AND THERAPEUTIC PROCEDURES.....87-99	4,682.1	1,332.7	2,114.2	6,897.3	16,737.2
COMPUTERIZED AXIAL TOMOGRAPHY (CAT SCAN).....87.03,87.41,87.71,88.01,88.38	616.0	153.1	307.0	765.0	2,346.6
PYELOGRAM.....87.73-87.75	116.6	*17.4	95.6	160.6	301.6
ARTERIOGRAPHY AND ANGIOCARDIOGRAPHY USING CONTRAST MATERIAL.....88.4-88.5	657.2	56.1	159.8	1,474.7	2,326.7
DIAGNOSTIC ULTRASOUND.....88.7	632.0	151.5	403.3	815.1	2,044.4
CIRCULATORY MONITORING.....89.6	316.1	59.1	111.7	406.9	1,387.4
RADIOISOTOPE SCAN.....92.C-92.1	257.5	37.0	102.9	402.1	999.1

1/ INCLUDES ADDENDA TO THE ICD-9-CM EFFECTIVE OCTOBER 1, 1989

NOTE: SEE "MEDICAL CODING AND EDIT," APPENDIX I, FOR CODING MODIFICATIONS FOR THE NATIONAL HOSPITAL DISCHARGE SURVEY.

TABLE 12. NUMBER OF ALL-LISTED PROCEDURES FOR PATIENTS DISCHARGED FROM SHORT-STAY HOSPITALS, BY SEX AND PROCEDURE CATEGORY: UNITED STATES, 1989

[DISCHARGES FROM NON-FEDERAL HOSPITALS. EXCLUDES NEWBORN INFANTS. GROUPINGS OF PROCEDURES BY ANATOMICAL SYSTEMS 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 1/	BOTH SEXES	MALE	FEMALE
NUMBER OF ALL-LISTED PROCEDURES IN THOUSANDS			
ALL PROCEDURES.....	40,043	16,088	23,954
OPERATIONS ON THE NERVOUS SYSTEM.....C1-05	909	475	435
SPINAL TAP.....03.31	377	203	174
OPERATIONS ON THE ENDOCRINE SYSTEM.....06-07	113	31	83
OPERATIONS ON THE EYE.....08-16	448	198	250
EXTRACTION OF LENS.....13.1-13.6	79	25	54
INSERTION OF PROSTHETIC LENS (PSEUDOPHAKOS).....13.7	72	24	48
OPERATIONS ON THE EAR.....18-20	168	93	75
OPERATIONS ON THE NOSE, MOUTH, AND PHARYNX.....21-29	734	386	348
RHINOPLASTY AND REPAIR OF NOSE.....21.8	90	46	44
TONSILLECTOMY WITH OR WITHOUT ADENOIDECTOMY.....28.2-28.3	155	69	86
OPERATIONS ON THE RESPIRATORY SYSTEM.....30-34	1,051	608	442
BRONCHOSCOPY.....33.21-33.23	137	85	52
OPERATIONS ON THE CARDIOVASCULAR SYSTEM.....35-39	3,722	2,236	1,486
REMOVAL OF CORONARY ARTERY OBSTRUCTION.....36.0	259	177	82
CORONARY ARTERY BYPASS GRAFT.....36.1	368	271	97
CARDIAC CATHETERIZATION.....37.21-37.23	958	601	357
PACEMAKER INSERTION, REPLACEMENT, REMOVAL, AND REPAIR.....37.7-37.8	275	142	133
OPERATIONS ON THE HEMIC AND LYMPHATIC SYSTEM.....40-41	385	190	195
OPERATIONS ON THE DIGESTIVE SYSTEM.....42-54	5,360	2,309	3,051
ESOPHAGOSCOPY AND GASTROSCOPY (NATURAL ORIFICE).....42.23,44.13	91	43	48
PARTIAL GASTRECTOMY AND RESECTION OF INTESTINE.....43.5-43.8,45.6-45.8	294	136	157
COLONOSCOPY AND SIGMOIDOSCOPY.....45.23-45.24	409	157	252
APPENDECTOMY, EXCLUDING INCIDENTAL.....47.0	253	141	112
HEMORRHOIDECTOMY.....49.43-49.46	75	45	30
CHOLECYSTECTOMY.....51.2	504	144	359
REPAIR OF INGUINAL HERNIA.....53.0-53.1	243	220	24
DIVISION OF PERITONEAL ADHESIONS.....54.5	329	59	270
OPERATIONS ON THE URINARY SYSTEM.....55-59	1,594	962	633
ENDOSCOPES THROUGH NATURAL ORIFICE.....55.21-55.22,56.31,57.32,58.22	530	380	150
OPERATIONS ON THE MALE GENITAL ORGANS.....60-64	648	648	...
PROSTATECTOMY.....60.2-60.6	376	376	...
OPERATIONS ON THE FEMALE GENITAL ORGANS.....65-71	2,385	...	2,385
OOPHORECTOMY AND SALPINGO-OOPHORECTOMY.....65.3-65.6	421	...	421
BILATERAL DESTRUCTION OR OCCLUSION OF FALLOPIAN TUBES.....66.2-66.3	389	...	389
HYSTERECTOMY.....68.3-68.7	541	...	541
DILATION AND CURETTAGE OF UTERUS.....69.0	265	...	265
REPAIR OF CYSTOCELE AND RECTOCELE.....70.5	135	...	135
OBSTETRICAL PROCEDURES.....72-75	6,383	...	6,383
EPISIOTOMY WITH OR WITHOUT FORCEPS OR VACUUM EXTRACTION.....72.1,72.21,72.31,72.71,73.6	1,704	...	1,704
CESAREAN SECTION.....74.0-74.2,74.4,74.99	938	...	938
REPAIR OF CURRENT OBSTETRIC LACERATION.....75.5-75.6	762	...	762
OPERATIONS ON THE MUSCULOSKELETAL SYSTEM.....76-84	3,171	1,676	1,495
OPEN REDUCTION OF FRACTURE, EXCEPT JAW.....76.79,79.2-79.3,79.5-79.6	479	236	243
OTHER REDUCTION OF FRACTURE, EXCEPT JAW.....76.70,76.78,79.0-79.1,79.4	192	107	85
EXCISION OR DESTRUCTION OF INTERVERTEBRAL DISC AND SPINAL FUSION.....80.5,81.0	355	204	151
ARTHROPLASTY AND REPLACEMENT OF KNEE.....1/ 81.41-81.47,81.54-81.55	228	123	106
OPERATIONS ON MUSCLES, TENDONS, FASCIA, AND BURSA.....82-83,1,83.3-83.9	312	191	120
OPERATIONS ON THE INTEGUMENTARY SYSTEM.....85-86	1,428	633	795
MASTECTOMY.....85.4	120	*	118
OR SUBCUTANEOUS TISSUE.....86.2-86.4	542	303	239
EXCISION OR DESTRUCTION OF LESION OR TISSUE OF SKIN			
SKIN GRAFT (EXCEPT LIP OR MOUTH).....86.6-86.7	124	75	49
MISCELLANEOUS DIAGNOSTIC AND THERAPEUTIC PROCEDURES.....87-99	11,544	5,644	5,900
COMPUTERIZED AXIAL TOMOGRAPHY (CAT SCAN).....87.03,87.41,87.71,88.01,88.38	1,519	721	798
PYELOGRAM.....87.73-87.75	288	161	127
ARTERIOGRAPHY AND ANGIOCARDIOGRAPHY USING CONTRAST MATERIAL.....88.4-88.5	1,620	1,000	620
DIAGNOSTIC ULTRASOUND.....88.7	1,558	628	930
CIRCULATORY MONITORING.....89.6	779	388	391
RADIOISOTOPE SCAN.....92.0-92.1	635	287	347

1/ INCLUDES ADDENDA TO THE ICD-9-CM EFFECTIVE OCTOBER 1, 1989

NOTE: SEE "MEDICAL CODING AND EDIT," APPENDIX I, FOR CODING MODIFICATIONS FOR THE NATIONAL HOSPITAL DISCHARGE SURVEY.

TABLE 13. RATE OF ALL-LISTED PROCEDURES FOR PATIENTS DISCHARGED FROM SHORT-STAY HOSPITALS, BY SEX AND PROCEDURE CATEGORY: UNITED STATES, 1989

[DISCHARGES FROM NON-FEDERAL HOSPITALS. EXCLUDES NEWBORN INFANTS. GROUPINGS OF PROCEDURES BY ANATOMICAL SYSTEMS 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 1/	BOTH SEXES	MALE	FEMALE
RATE OF ALL-LISTED PROCEDURES PER 100,000 POPULATION			
ALL PROCEDURES.....	16,241.1	13,466.7	18,649.2
OPERATIONS ON THE NERVOUS SYSTEM.....01-05	368.8	397.3	342.0
SPINAL TAP.....03-31	153.1	170.2	136.9
OPERATIONS ON THE ENDOCRINE SYSTEM.....06-07	46.0	25.6	65.1
OPERATIONS ON THE EYE.....08-16	181.6	165.6	196.7
EXTRACTION OF LENS.....13-1-13-6	32.1	21.0	42.6
INSERTION OF PROSTHETIC LENS (PSEUDOPHAKOS).....13-7	29.1	19.7	38.0
OPERATIONS ON THE EAR.....18-20	68.2	78.0	58.9
OPERATIONS ON THE NOSE, MOUTH, AND PHARYNX.....21-29	297.8	323.4	273.7
RHINOPLASTY AND REPAIR OF NOSE.....21-8	36.4	38.1	34.8
TONSILLECTOMY WITH OR WITHOUT ADENOIDECTOMY.....28-2-28-3	62.9	57.5	67.9
OPERATIONS ON THE RESPIRATORY SYSTEM.....30-34	426.2	509.3	348.1
BRONCHOSCOPY.....33-21-33-23	55.6	70.9	41.2
OPERATIONS ON THE CARDIOVASCULAR SYSTEM.....35-39	1,509.4	1,871.6	1,168.9
REMOVAL OF CORONARY ARTERY OBSTRUCTION.....36-0	105.0	148.2	64.3
CORONARY ARTERY BYPASS GRAFT.....36-1	149.3	226.8	76.6
CARDIAC CATHETERIZATION.....37-21-37-23	388.4	503.1	280.7
PACEMAKER INSERTION, REPLACEMENT, REMOVAL, AND REPAIR.....37-7-37-8	111.5	118.9	104.5
OPERATIONS ON THE HEMIC AND LYMPHATIC SYSTEM.....40-41	156.1	159.3	153.1
OPERATIONS ON THE DIGESTIVE SYSTEM.....42-54	2,174.0	1,932.5	2,400.9
ESOPHAGOSCOPY AND GASTROSCOPY (NATURAL ORIFICE).....42-23-44-13	37.0	35.9	38.1
PARTIAL GASTRECTOMY AND RESECTION OF INTESTINE.....43-5-43-8,45-6-45-8	119.2	114.2	123.9
COLONOSCOPY AND SIGMOIDOSCOPY.....45-23-45-24	165.7	131.3	198.0
APPENDECTOMY, EXCLUDING INCIDENTAL.....47-0	102.5	117.8	88.1
HEMORRHOIDECTOMY.....49-43-49-46	30.6	37.8	23.8
CHOLECYSTECTOMY.....49-4	204.2	120.8	282.7
REPAIR OF INGUINAL HERNIA.....53-0-53-1	98.6	183.8	18.5
DIVISION OF PERITONEAL ADHESIONS.....54-5	133.4	49.6	212.1
OPERATIONS ON THE URINARY SYSTEM.....55-59	646.7	804.8	498.0
ENDOSCOPES THROUGH NATURAL ORIFICE.....55-21-55-22,56-31,57-32,58-22	214.8	318.0	117.8
OPERATIONS ON THE MALE GENITAL ORGANS.....60-64	262.8	542.4	...
PROSTATECTOMY.....60-2-60-6	152.6	315.0	...
OPERATIONS ON THE FEMALE GENITAL ORGANS.....65-71	967.5	...	1,677.0
OOPHORECTOMY AND SALPINGO-OOPHORECTOMY.....65-3-65-6	170.6	...	331.0
BILATERAL DESTRUCTION OR OCCLUSION OF FALLOPIAN TUBES.....66-2-66-3	157.6	...	305.8
HYSTERECTOMY.....68-3-68-7	219.3	...	425.4
DILATION AND CURETTAGE OF UTERUS.....69-0	107.3	...	208.2
REPAIR OF CYSTOCELE AND RECTOCELE.....70-5	54.8	...	106.3
OBSTETRICAL PROCEDURES.....72-75	2,588.8	...	5,622.5
EPISIOTOMY WITH OR WITHOUT FORCEPS OR VACUUM EXTRACTION.....72-1,72-21,72-31,72-71,73-6	691.0	...	1,340.5
CESAREAN SECTION.....74-0-74-2,74-4,74-99	380.4	...	738.0
REPAIR OF CURRENT OBSTETRIC LACERATION.....75-5-75-6	309.1	...	599.7
OPERATIONS ON THE MUSCULOSKELETAL SYSTEM.....76-84	1,286.1	1,403.0	1,176.1
OPEN REDUCTION OF FRACTURE, EXCEPT JAW.....76-79,79-2-79-3,79-5-79-6	194.2	197.3	191.3
OTHER REDUCTION OF FRACTURE, EXCEPT JAW.....76-70,76-78,79-0-79-1,79-4	77.9	89.4	67.2
EXCISION OR DESTRUCTION OF INTERVERTEBRAL DISC AND SPINAL FUSION.....80-5,81-0	144.1	170.9	118.9
ARTHROPLASTY AND REPLACEMENT OF KNEE.....81/ 81-41-81-47,81-54-81-55	92.7	102.6	83.3
OPERATIONS ON MUSCLES, TENDONS, FASCIA, AND BURSA.....82-83-1,83-3-83-9	126.3	159.9	94.8
OPERATIONS ON THE INTEGUMENTARY SYSTEM.....85-86	579.1	530.0	625.2
MASTECTOMY.....85-4	48.9	*	92.7
OR SUBCUTANEOUS TISSUE.....86-2-86-4	219.7	253.3	188.1
EXCISION OR DESTRUCTION OF LESION OR TISSUE OF SKIN			
SKIN GRAFT (EXCEPT LIP OR MOUTH).....86-6-86-7	50.4	62.7	38.9
MISCELLANEOUS DIAGNOSTIC AND THERAPEUTIC PROCEDURES.....87-99	4,682.1	4,723.9	4,642.9
COMPUTERIZED AXIAL TOMOGRAPHY (CAT SCAN).....87-03,87-41,87-71,88-01,88-38	616.0	603.6	627.6
PYELOGRAM.....87-73-87-75	116.6	134.4	100.0
ARTERIOGRAPHY AND ANGIOCARDIOGRAPHY USING CONTRAST MATERIAL.....88-4-88-5	657.2	836.9	488.2
DIAGNOSTIC ULTRASOUND.....88-7	632.0	525.7	732.0
CIRCULATORY MONITORING.....89-6	316.1	325.0	307.7
RADIOISOTOPE SCAN.....92-0-92-1	257.5	240.6	273.4

1/ INCLUDES ADDENDA TO THE ICD-9-CM EFFECTIVE OCTOBER 1, 1989

NOTE: SEE "MEDICAL CODING AND EDIT," APPENDIX I, FOR CODING MODIFICATIONS FOR THE NATIONAL HOSPITAL DISCHARGE SURVEY.

TABLE 14. NUMBER OF ALL-LISTED PROCEDURES FOR PATIENTS DISCHARGED FROM SHORT-STAY HOSPITALS, BY RACE AND PROCEDURE CATEGORY: UNITED STATES, 1989

[DISCHARGES FROM NON-FEDERAL HOSPITALS. EXCLUDES NEWBORN INFANTS. GROUPINGS OF PROCEDURES BY ANATOMICAL SYSTEMS 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 1/	ALL RACES	WHITE	ALL OTHER	NOT STATED
	NUMBER OF ALL-LISTED PROCEDURES IN THOUSANDS			
ALL PROCEDURES.....	40,043	29,525	6,126	4,392
OPERATIONS ON THE NERVOUS SYSTEM.....01-05	909	654	151	105
SPINAL TAP.....03.31	377	236	90	51
OPERATIONS ON THE ENDOCRINE SYSTEM.....06-07	113	84	20	9
OPERATIONS ON THE EYE.....08-16	448	327	57	64
EXTRACTION OF LENS.....13.1-13.6	79	60	8	11
INSERTION OF PROSTHETIC LENS (PSEUDOPHAKOS).....13.7	72	59	6	7
OPERATIONS ON THE EAR.....18-20	168	127	22	18
OPERATIONS ON THE NOSE, MOUTH, AND PHARYNX.....21-29	734	576	82	77
RHINOPLASTY AND REPAIR OF NOSE.....21.8	90	76	7	7
TONSILLECTOMY WITH OR WITHOUT ADENOIDECTOMY.....28.2-28.3	155	124	16	14
OPERATIONS ON THE RESPIRATORY SYSTEM.....30-34	1,051	767	169	114
BRONCHOSCOPY.....33.21-33.23	137	101	19	18
OPERATIONS ON THE CARDIOVASCULAR SYSTEM.....35-39	3,722	2,870	464	387
REMOVAL OF CORONARY ARTERY OBSTRUCTION.....36.0	259	208	13	38
CORONARY ARTERY BYPASS GRAFT.....36.1	368	317	21	31
CARDIAC CATHETERIZATION.....37.21-37.23	958	783	83	91
PACEMAKER INSERTION, REPLACEMENT, REMOVAL, AND REPAIR.....37.7-37.8	275	223	22	30
OPERATIONS ON THE HEMIC AND LYMPHATIC SYSTEM.....40-41	385	296	46	43
OPERATIONS ON THE DIGESTIVE SYSTEM.....42-54	5,360	4,064	700	595
ESOPHAGOSCOPY AND GASTROSCOPY (NATURAL ORIFICE).....42.23,44.13	91	68	14	29
PARTIAL GASTRECTOMY AND RESECTION OF INTESTINE.....43.5-43.8,45.6-45.8	294	224	36	34
COLONOSCOPY AND SIGMOIDOSCOPY.....45.23-45.24	409	322	50	37
APPENDECTOMY, EXCLUDING INCIDENTAL.....47.0	253	181	28	43
HEMORRHOIDECTOMY.....49.43-49.46	75	59	8	8
CHOLECYSTECTOMY.....51.2	504	392	46	65
REPAIR OF INGUINAL HERNIA.....53.0-53.1	243	194	19	30
DIVISION OF PERITONEAL ADHESIONS.....54.5	329	250	47	32
OPERATIONS ON THE URINARY SYSTEM.....55-59	1,594	1,235	179	180
ENDOSCOPIES THROUGH NATURAL ORIFICE.....55.21-55.22,56.31,57.32,58.22	530	423	56	51
OPERATIONS ON THE MALE GENITAL ORGANS.....60-64	648	501	77	69
PROSTATECTOMY.....60.2-60.6	376	292	36	48
OPERATIONS ON THE FEMALE GENITAL ORGANS.....65-71	2,385	1,708	409	269
OOPHORECTOMY AND SALPINGO-OOPHORECTOMY.....65.3-65.6	421	321	54	45
BILATERAL DESTRUCTION OR OCCLUSION OF FALLOPIAN TUBES.....66.2-66.3	389	241	95	52
HYSTERECTOMY.....68.3-68.7	541	405	76	60
DILATION AND CURETTAGE OF UTERUS.....69.0	265	175	63	27
REPAIR OF CYSTOCELE AND RECTOCELE.....70.5	135	105	10	20
OBSTETRICAL PROCEDURES.....72-75	6,383	4,093	1,349	941
EPISIOTOMY WITH OR WITHOUT FORCEPS OR VACUUM				
EXTRACTION.....72.1,72.21,72.31,72.71,73.6	1,704	1,158	283	262
CESAREAN SECTION.....74.0-74.2,74.4,74.99	938	624	194	120
REPAIR OF CURRENT OBSTETRIC LACERATION.....75.5-75.6	762	466	166	131
OPERATIONS ON THE MUSCULOSKELETAL SYSTEM.....76-84	3,171	2,468	366	337
OPEN REDUCTION OF FRACTURE, EXCEPT JAW.....76.79,79.2-79.3,79.5-79.6	479	369	63	47
OTHER REDUCTION OF FRACTURE, EXCEPT JAW.....76.70,76.78,79.0-79.1,79.4	192	156	20	17
EXCISION OR DESTRUCTION OF INTERVERTEBRAL DISC AND SPINAL FUSION.....80.5,81.0	355	290	30	36
ARTHROPLASTY AND REPLACEMENT OF KNEE.....1/ 81.41-81.47,81.54-81.55	228	187	17	25
OPERATIONS ON MUSCLES, TENDONS, FASCIA, AND BURSA.....82-83.1,83.3-83.9	312	228	43	40
OPERATIONS ON THE INTEGUMENTARY SYSTEM.....85-86	1,428	1,049	236	143
MASTECTOMY.....85.4	120	95	12	13
OR SUBCUTANEOUS TISSUE.....86.2-86.4	542	405	95	41
EXCISION OR DESTRUCTION OF LESION OR TISSUE OF SKIN				
SKIN GRAFT (EXCEPT LIP OR MOUTH).....86.6-86.7	124	88	26	11
MISCELLANEOUS DIAGNOSTIC AND THERAPEUTIC PROCEDURES.....87-99	11,544	8,708	1,798	1,038
COMPUTERIZED AXIAL TOMOGRAPHY (CAT SCAN).....87.03,87.41,87.71,88.01,88.38	1,519	1,123	258	138
PYELOGRAM.....87.73-87.75	288	228	35	25
ARTERIOGRAPHY AND ANGIOCARDIOGRAPHY USING CONTRAST MATERIAL.....88.4-88.5	1,620	1,323	157	140
DIAGNOSTIC ULTRASOUND.....88.7	1,558	1,066	337	155
CIRCULATORY MONITORING.....89.6	779	613	126	40
RADIOISOTOPE SCAN.....92.0-92.1	635	470	105	60

1/ INCLUDES ADDENDA TO THE ICD-9-CM EFFECTIVE OCTOBER 1, 1989

NOTE: SEE "MEDICAL CODING AND EDIT," APPENDIX I, FOR CODING MODIFICATIONS FOR THE NATIONAL HOSPITAL DISCHARGE SURVEY.

TABLE 15. NUMBER OF ALL-LISTED PROCEDURES FOR PATIENTS DISCHARGED FROM SHORT-STAY HOSPITALS, BY GEOGRAPHIC REGION AND PROCEDURE CATEGORY: UNITED STATES, 1989

[DISCHARGES FROM NON-FEDERAL HOSPITALS. EXCLUDES NEWBORN INFANTS. GROUPINGS OF PROCEDURES BY ANATOMICAL SYSTEMS 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 1/	UNITED STATES	NORTH-EAST	MIDWEST	SOUTH	WEST
NUMBER OF ALL-LISTED PROCEDURES IN THOUSANDS					
ALL PROCEDURES.....	40,043	10,186	9,464	12,708	7,685
OPERATIONS ON THE NERVOUS SYSTEM.....01-05	909	228	203	315	163
SPINAL TAP.....03.31	377	92	82	124	79
OPERATIONS ON THE ENDOCRINE SYSTEM.....06-07	113	26	27	44	16
OPERATIONS ON THE EYE.....08-16	448	124	78	179	67
EXTRACTION OF LENS.....13.1-13.6	79	33	11	23	13
INSERTION OF PROSTHETIC LENS (PSEUDOPHAKOS).....13.7	72	35	49	20	48
OPERATIONS ON THE EAR.....18-20	168	69	34	40	25
OPERATIONS ON THE NOSE, MOUTH, AND PHARYNX.....21-29	734	244	171	223	96
RHINOPLASTY AND REPAIR OF NOSE.....21.8	90	36	21	23	49
TONSILLECTOMY WITH OR WITHOUT ADENOIDECTOMY.....28.2-28.3	155	50	39	47	19
OPERATIONS ON THE RESPIRATORY SYSTEM.....30-34	1,051	281	242	351	176
BRONCHOSCOPY.....33.21-33.23	137	36	30	37	34
OPERATIONS ON THE CARDIOVASCULAR SYSTEM.....35-39	3,722	839	1,031	1,174	678
REMOVAL OF CORONARY ARTERY OBSTRUCTION.....36.0	259	40	87	65	67
CORONARY ARTERY BYPASS GRAFT.....36.1	368	83	108	112	65
CARDIAC CATHETERIZATION.....37.21-37.23	958	210	279	307	161
PACEMAKER INSERTION, REPLACEMENT, REMOVAL, AND REPAIR.....37.7-37.8	275	74	53	94	53
OPERATIONS ON THE HEMIC AND LYMPHATIC SYSTEM.....40-41	385	109	87	128	61
OPERATIONS ON THE DIGESTIVE SYSTEM.....42-54	5,360	1,301	1,296	1,845	918
ESOPHAGOSCOPY AND GASTROSCOPY (NATURAL ORIFICE).....42.23,44.13	91	23	23	31	15
PARTIAL GASTRECTOMY AND RESECTION OF INTESTINE.....43.5-43.8,45.6-45.8	294	71	65	103	56
COLONOSCOPY AND SIGMOIDOSCOPY.....45.23-45.24	409	106	98	149	56
APPENDECTOMY, EXCLUDING INCIDENTAL.....47.0	253	43	65	87	57
HEMORRHOIDECTOMY.....49.43-49.46	75	15	23	26	12
CHOLECYSTECTOMY.....51.2	504	101	135	170	97
REPAIR OF INGUINAL HERNIA.....53.0-53.1	243	82	60	73	28
DIVISION OF PERITONEAL ADHESIONS.....54.5	329	69	85	122	53
OPERATIONS ON THE URINARY SYSTEM.....55-59	1,594	459	394	495	246
ENDOSCOPES THROUGH NATURAL ORIFICE.....55.21-55.22,56.31,57.32,58.22	530	147	144	173	65
OPERATIONS ON THE MALE GENITAL ORGANS.....60-64	648	152	181	200	115
PROSTATECTOMY.....60.2-60.6	376	74	108	122	73
OPERATIONS ON THE FEMALE GENITAL ORGANS.....65-71	2,385	478	534	962	412
OOPHORECTOMY AND SALPINGO-OOPHORECTOMY.....65.3-65.6	421	68	111	166	76
BILATERAL DESTRUCTION OR OCCLUSION OF FALLOPIAN TUBES.....66.2-66.3	389	66	69	188	67
HYSTERECTOMY.....68.3-68.7	541	83	143	219	96
DILATION AND CURETTAGE OF UTERUS.....69.0	265	92	50	86	36
REPAIR OF CYSTOCELE AND RECTOCELE.....70.5	135	22	29	55	29
OBSTETRICAL PROCEDURES.....72-75	6,383	1,355	1,518	1,965	1,545
EPISIOTOMY WITH OR WITHOUT FORCEPS OR VACUUM EXTRACTION.....72.1,72.21,72.31,72.71,73.6	1,704	346	400	620	337
CESAREAN SECTION.....74.0-74.2,74.4,74.99	938	180	212	380	167
REPAIR OF CURRENT OBSTETRIC LACERATION.....75.5-75.6	762	159	166	222	215
OPERATIONS ON THE MUSCULOSKELETAL SYSTEM.....76-84	3,171	772	709	1,098	592
OPEN REDUCTION OF FRACTURE, EXCEPT JAW.....76.79,79.2-79.3,79.5-79.6	479	102	115	171	91
OTHER REDUCTION OF FRACTURE, EXCEPT JAW.....76.70,76.78,79.0-79.1,79.4	192	49	50	61	33
EXCISION OR DESTRUCTION OF INTERVERTEBRAL DISC AND SPINAL FUSION.....80.5,81.0	355	61	98	144	52
ARTHROPLASTY AND REPLACEMENT OF KNEE.....1/ 81.41-81.47,81.54-81.55	228	47	58	74	49
OPERATIONS ON MUSCLES, TENDONS, FASCIA, AND BURSA.....82-83.1,83.3-83.9	312	85	57	111	58
OPERATIONS ON THE INTEGUMENTARY SYSTEM.....85-86	1,428	416	326	485	201
MASTECTOMY.....85.4	120	31	33	39	18
OR SUBCUTANEOUS TISSUE.....86.2-86.4	542	168	132	184	58
EXCISION OR DESTRUCTION OF LESION OR TISSUE OF SKIN					
SKIN GRAFT (EXCEPT LIP OR MOUTH).....86.6-86.7	124	40	30	40	15
MISCELLANEOUS DIAGNOSTIC AND THERAPEUTIC PROCEDURES.....87-99	11,544	3,333	2,633	3,204	2,375
COMPUTERIZED AXIAL TOMOGRAPHY (CAT SCAN).....87.03,87.41,87.71,88.01,88.38	1,519	478	284	443	313
PYELOGRAM.....87.73-87.75	288	77	66	98	47
ARTERIOGRAPHY AND ANGIOCARCIOGRAPHY USING CONTRAST MATERIAL.....88.4-88.5	1,620	407	481	485	246
DIAGNOSTIC ULTRASOUND.....88.7	1,558	446	348	409	355
CIRCULATORY MONITORING.....89.6	779	259	136	201	183
RADIOISOTOPE SCAN.....92.0-92.1	635	192	123	183	137

1/ INCLUDES ADDENDA TO THE ICD-9-CM EFFECTIVE OCTOBER 1, 1989

NOTE: SEE "MEDICAL CODING AND EDIT," APPENDIX I, FOR CODING MODIFICATIONS FOR THE NATIONAL HOSPITAL DISCHARGE SURVEY.

TABLE 16. RATE OF ALL-LISTED PROCEDURES FOR PATIENTS DISCHARGED FROM SHORT-STAY HOSPITALS, BY GEOGRAPHIC REGION AND PROCEDURE CATEGORY: UNITED STATES, 1989

[DISCHARGES FROM NON-FEDERAL HOSPITALS. EXCLUDES NEWBORN INFANTS. GROUPINGS OF PROCEDURES BY ANATOMICAL SYSTEMS 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 1/	UNITED STATES	NORTH-EAST	MIDWEST	SOUTH	WEST
RATE OF ALL-LISTED PROCEDURES PER 100,000 POPULATION					
ALL PROCEDURES.....	16,241.1	20,106.8	15,771.6	15,012.0	14,999.4
OPERATIONS ON THE NERVOUS SYSTEM.....01-05	368.8	449.7	339.1	371.7	318.8
SPINAL TAP.....03-31	153.1	182.4	135.9	146.8	154.5
OPERATIONS ON THE ENDOCRINE SYSTEM.....06-07	46.0	51.1	45.6	52.3	30.8
OPERATIONS ON THE EYE.....08-16	181.6	244.8	130.2	211.4	130.2
EXTRACTION OF LENS.....13-1-13-6	32.1	65.3	17.7	27.2	24.5
INSERTION OF PROSTHETIC LENS (PSEUDOPHAKOS).....13-7	29.1	68.6	*14.7	23.6	*16.0
OPERATIONS ON THE EAR.....18-20	68.2	136.3	55.8	47.6	49.2
OPERATIONS ON THE NOSE, MOUTH, AND PHARYNX.....21-29	297.8	481.5	284.4	263.7	188.0
RHINOPLASTY AND REPAIR OF NOSE.....21-8	36.4	71.8	35.6	27.2	*17.6
TONSILLECTOMY WITH OR WITHOUT ADENOIDECTOMY.....28-2-28-3	62.9	99.6	64.6	55.7	36.4
OPERATIONS ON THE RESPIRATORY SYSTEM.....30-34	426.2	555.6	403.7	414.5	344.0
BRONCHOSCOPY.....33-21-33-23	55.6	72.0	50.5	43.4	65.5
OPERATIONS ON THE CARDIOVASCULAR SYSTEM.....35-39	1,509.4	1,656.3	1,718.4	1,386.5	1,322.5
REMOVAL OF CORONARY ARTERY OBSTRUCTION.....36-0	105.0	79.3	145.1	76.5	130.3
CORONARY ARTERY BYPASS GRAFT.....36-1	149.3	164.2	180.7	131.8	126.9
CARDIAC CATHETERIZATION.....37-21-37-23	388.4	415.4	465.2	362.4	314.9
PACEMAKER INSERTION, REPLACEMENT, REMOVAL, AND REPAIR.....37-7-37-8	111.5	146.7	88.2	111.6	103.8
OPERATIONS ON THE HEMIC AND LYMPHATIC SYSTEM.....40-41	156.1	214.6	144.5	151.4	119.6
OPERATIONS ON THE DIGESTIVE SYSTEM.....42-54	2,174.0	2,567.2	2,160.4	2,179.6	1,791.6
ESOPHAGOSCOPY AND GASTROSCOPY (NATURAL ORIFICE).....42-23,44-13	37.0	45.5	38.2	36.3	28.6
PARTIAL GASTRECTOMY AND RESECTION OF INTESTINE.....43-5-43-8,45-6-45-8	119.2	139.5	107.5	121.6	108.9
COLONOSCOPY AND SIGMOIDOSCOPY.....45-23-45-24	165.7	208.4	162.8	176.1	109.7
APPENDECTOMY, EXCLUDING INCIDENTAL.....47-0	102.5	85.4	108.8	102.7	111.6
HEMORRHOIDECTOMY.....49-43-49-46	30.6	29.0	37.9	30.3	24.2
CHOLECYSTECTOMY.....51-2	204.2	198.5	225.7	201.2	189.8
REPAIR OF INGUINAL HERNIA.....53-0-53-1	98.6	162.3	99.7	86.5	54.6
DIVISION OF PERITONEAL ADHESIONS.....54-5	133.4	136.1	141.4	144.5	102.9
OPERATIONS ON THE URINARY SYSTEM.....55-59	646.7	906.1	657.2	584.7	480.2
ENDOSCOPIES THROUGH NATURAL ORIFICE.....55-21-55-22,56-31,57-32,58-22	214.8	290.3	240.6	204.5	127.0
OPERATIONS ON THE MALE GENITAL ORGANS.....60-64	262.8	299.6	301.9	236.4	224.2
PROSTATECTOMY.....60-2-60-6	152.6	145.6	179.2	143.6	143.4
OPERATIONS ON THE FEMALE GENITAL ORGANS.....65-71	967.5	944.5	889.2	1,136.0	803.5
OOPHORECTOMY AND SALPINGO-OOPHORECTOMY.....65-3-65-6	170.6	133.3	185.7	196.2	147.4
BILATERAL DESTRUCTION OR OCCLUSION OF FALLOPIAN TUBES.....66-2-66-3	157.6	129.5	114.3	221.7	130.2
HYSTERECTOMY.....68-3-68-7	219.3	163.3	238.6	258.6	187.0
DILATION AND CURETTAGE OF UTERUS.....69-0	107.3	181.4	83.4	101.8	71.1
REPAIR OF CYSTOCELE AND RECTOCELE.....70-5	54.8	43.1	48.7	64.9	56.7
OBSTETRICAL PROCEDURES.....72-75	2,588.8	2,674.1	2,529.6	2,321.4	3,015.5
EPISIOTOMY WITH OR WITHOUT FORCEPS OR VACUUM					
EXTRACTION.....72-1,72-21,72-31,72-71,73-6	691.0	683.1	667.2	733.0	657.3
CESAREAN SECTION.....74-0-74-2,74-4,74-99	380.4	354.4	352.9	448.5	325.8
REPAIR OF CURRENT OBSTETRIC LACERATION.....75-5-75-6	309.1	313.7	276.8	261.8	420.6
OPERATIONS ON THE MUSCULOSKELETAL SYSTEM.....76-84	1,286.1	1,524.6	1,180.9	1,297.1	1,155.2
OPEN REDUCTION OF FRACTURE, EXCEPT JAW.....76-79,79-2-79-3,79-5-79-6	194.2	202.2	191.0	201.9	177.3
OTHER REDUCTION OF FRACTURE, EXCEPT JAW.....76-70,76-78,79-0-79-1,79-4	77.9	95.9	83.0	72.2	63.7
EXCISION OR DESTRUCTION OF INTERVERTEBRAL DISC AND SPINAL FUSION.....80-5,81-0	144.1	120.8	163.6	169.9	101.5
ARTHROPLASTY AND REPLACEMENT OF KNEE.....81-1/81-41-81-47,81-54-81-55	92.7	93.7	96.9	87.3	95.5
OPERATIONS ON MUSCLES, TENDONS, FASCIA, AND BURSA.....82-83-1,83-3-83-9	126.3	168.8	94.2	131.2	114.1
OPERATIONS ON THE INTEGUMENTARY SYSTEM.....85-86	579.1	821.9	542.6	573.2	391.3
MASTECTOMY.....85-4	48.9	60.8	54.5	46.0	35.2
OR SUBCUTANEOUS TISSUE.....86-2-86-4	219.7	332.0	220.1	217.1	112.4
EXCISION OR DESTRUCTION OF LESION OR TISSUE OF SKIN					
SKIN GRAFT (EXCEPT LIP OR MOUTH).....86-6-86-7	50.4	78.8	49.7	46.9	29.1
MISCELLANEOUS DIAGNOSTIC AND THERAPEUTIC PROCEDURES.....87-99	4,682.1	6,578.7	4,388.0	3,784.5	4,634.7
COMPUTERIZED AXIAL TOMOGRAPHY (CAT SCAN).....87-03,87-41,87-71,88-01,88-38	616.0	944.0	473.7	523.7	610.7
PYELOGRAM.....87-73-87-75	116.6	151.1	109.6	115.7	92.3
ARTERIOGRAPHY AND ANGIOCARDIOGRAPHY USING CONTRAST MATERIAL.....88-4-88-5	657.2	803.9	802.1	573.4	480.7
DIAGNOSTIC ULTRASOUND.....88-7	632.0	880.0	580.0	483.7	692.9
CIRCULATORY MONITORING.....89-6	316.1	512.1	227.0	237.2	357.1
RADIOISOTOPE SCAN.....92-0-92-1	257.5	379.5	204.7	216.5	266.5

1/ INCLUDES ADDENDA TO THE ICD-9-CM EFFECTIVE OCTOBER 1, 1989

NOTE: SEE "MEDICAL CODING AND EDIT," APPENDIX I, FOR CODING MODIFICATIONS FOR THE NATIONAL HOSPITAL DISCHARGE SURVEY.

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Appendix I

Technical notes on methods

Statistical design of the National Hospital Discharge Survey

Scope of the survey—The National Hospital Discharge Survey (NHDS) 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.

NHDS history—The National Center for Health Statistics (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. The development and design of the original NHDS has been published (1).

Until 1985, all data were collected by a system in which sample selection and transcription of information were done manually. Starting in 1985 some data were also collected using a system in which NCHS purchased data tapes containing discharge medical abstracts from commercial abstracting services and selected the samples from those tapes.

In 1988, the NCHS redesigned the NHDS to link it with other surveys conducted by NCHS and to improve efficiency through use of information and technologies that were not available when the survey was first designed in 1964. Details of the new design are outlined below.

The changes in the survey may affect trend data. That is, some of the differences between NHDS estimates based on the 1965–87 sample and estimates based on the new sample may be due to survey redesign rather than to real changes in hospital utilization.

New sampling design—The NHDS sampling frame consists of hospitals that were listed in the April 1987 SMG Hospital Market Data Tape (2) and that began to accept inpatients by August 1987. 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 112 primary sampling units (PSU's) that comprise a probability subsample of PSU's used in the 1985–94 National Health Interview Survey (NHIS). The PSU's are counties, groups of counties, county equivalents (such as parishes or independent cities), or towns and townships (for some PSU's in New England). The NHDS sample includes with certainty the 26 PSU's with the largest populations. In addition, the sample includes half of the next 26 largest PSU's, and one PSU from each of 73 PSU strata formed from the remaining PSU's for the NHIS sample design. Those 73 PSU strata were defined within four geographical regions and were assigned metropolitan statistical area (MSA) or non-MSA status by using 1980 Census of Population data and a computer program that minimized the between-PSU variances for NHIS stratification variables. (MSA is a metropolitan statistical area defined by the U.S. Office of Management and Budget on the basis of the 1980 Census.) From the 73 strata thus formed, the PSU's were selected with probability proportional to the projected 1985 population. A more detailed analysis of the NHIS PSU sample design is presented in a Series 2 *Vital and Health Statistics* report (5).

The second stage consists of noncertainty hospitals selected from the sample PSU's. To assure distribution of the sample across PSU's and to maximize the potential for automated data collection, the noncertainty hospitals in those PSU's were stratified. The strata were defined by region, PSU, and in the 12 largest PSU's, by abstracting status (whether or not the hospital subscribes to a commercial abstracting service). Within the strata, the hospitals were ordered by PSU, abstracting service status, and the hospital specialty-size groups defined in table I. Within each specialty-size group, hospitals were arrayed by their annual numbers of discharges recorded in the April 1987 SMG Hospital Market Data Tape. Hospitals were then selected from each stratum's ordered array by systematic random sampling with probability proportional to their SMG recorded 1987 annual numbers of discharges. The sampling rates were such that at least three hospitals were selected from every PSU containing three eligible hospitals or more. In PSU's with fewer than three hospitals, all hospitals in the PSU were selected. For 1989, the sample

Table I. Definition of noncertainty hospital specialty-size groups used as secondary strata in the National Hospital Discharge Survey 1989 sample design

<i>Hospital group</i>	<i>Bed size</i>	<i>Type of service</i>
Group 1	6-999 beds	Selected specialties ¹
Group 2	6-174 beds	General (medical and surgical) and other specialties ²
Group 3	175-349 beds	General (medical and surgical) and other specialties ²
Group 4	350-999 beds	General (medical and surgical) and other specialties ²

¹Includes psychiatry; tuberculosis and other respiratory disease; rehabilitation; chronic disease; mental retardation; alcoholism and other chemical dependency; and children's psychiatry.

²"Other specialties" include: obstetrics and gynecology; eye, ear, nose, and throat; orthopedics; other specialty; children's general; children's tuberculosis and other respiratory disease; children's eye, ear, nose, and throat; children's rehabilitation; children's orthopedics; children's chronic disease; and children's other specialty.

Table II. Number of hospitals in the National Hospital Discharge Survey universe and sample, number of in-scope and responding sample hospitals, and response rates, by geographic region: United States, 1989

<i>Geographic region</i>	<i>Universe</i>	<i>Total sample</i>	<i>Sample in-scope¹</i>	<i>Respondents²</i>	<i>Response rate</i>
					<i>Number</i>	Percent
All regions	6,400	542	526	408	78
Northeast	931	117	115	97	84
Midwest	1,797	120	115	86	75
South	2,458	219	215	167	78
West	1,214	86	81	58	72

¹Excludes hospitals that for the whole year either were out of business or failed to meet the definition of a general, a children's general, or a short-stay hospital.

²Hospitals for which data were collected by the National Center for Health Statistics for at least half the number of sample discharges expected in half or more of the months the hospitals were in scope.

consisted of 542 hospitals. Of the 542 hospitals, 16 were found to be out of scope (ineligible) because prior to 1989 they went out of business or otherwise failed to meet the criteria for the NHDS universe. Of the 526 in-scope (eligible) hospitals, 408 hospitals responded (NCHS collected data for at least half of the number of sample discharges expected in half or more of the months these hospitals were in scope). The number of hospitals in the universe, the sample, and the responding sample are shown by region in table II.

At the third stage, a sample of discharges from each hospital was selected by a systematic random sampling technique. For hospitals using the manual system of data collection, the discharges were selected at the hospital from daily listing sheets, computer files, or other lists in which discharges were listed in some chronological order. For most of these hospitals, the sample discharges were selected on the basis of the terminal digit(s) of the patient's medical record number. In some cases, an admission number, billing number, or other number was used. If no patient numbers useful for sampling purposes were available in a hospital's list of discharges, the sample was selected by starting with a randomly selected discharge and taking every *k*th discharge thereafter.

For hospitals whose data were collected via the automated system, the discharges were selected by NCHS from discharge medical abstract files after sorting by the first two digits of the ICD-9-CM code of the first-listed diagnosis, patient age group at time of admission (under 1 year, 1-14 years, 15-44 years, 45-64 years, 65-74 years, 75-84 years, 85 years and over, and age unknown), sex,

and date of discharge. These samples were selected by starting with a randomly selected discharge and taking every *k*th discharge thereafter.

The third-stage sampling rate was determined by the hospital's sampling stratum and the system (manual or automated) used to collect data from the hospital. One percent and 5 percent of discharges in the certainty hospitals were selected under the manual and automated systems, respectively. Except for certainty hospitals, the target sample size was 250 discharges each from all manual system hospitals and from the automated system hospitals that had fewer than 4,000 discharges annually according to the 1987 sampling frame data. Samples of 2,000 were targeted for each of the remaining noncertainty automated system hospitals. The final sample for 1989 included about 233,000 discharge medical record abstracts.

Data collection and processing

Data collection—Two data collection procedures were used for the survey. One was a manual system of sample selection and data abstraction. The other was an automated method, used with approximately 35 percent of the respondent hospitals in 1989, that involved the purchase of data tapes from abstracting service organizations.

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 then forwarded to NCHS for coding, editing,

and weighting. A few of these hospitals submitted their data via computer printout or tape. Of the hospitals using the manual system in 1989, 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 this work on behalf of NCHS. For the automated system, NCHS purchased tapes containing machine-readable medical record data from abstracting service organizations and selected sample discharges from these tapes.

Figure I shows the information collection form used in 1989. This form and the records on abstract service data tapes contain items relating to personal characteristics of the patient, including birth date, sex, race, ethnicity, marital status, ZIP Code (but not name and address), and expected sources of payment; administrative information, including admission and discharge dates, discharge status, and medical record number; and medical information, including diagnoses, surgical and nonsurgical operations or procedures, and dates of surgery. These data items conform with the Uniform Hospital Discharge Data Set (UHDDS) (6). The PSU, hospital name, medical record number, and patient ZIP Code are confidential information and are not available to the public.

Medical coding and edit—The medical information recorded on the sample patient abstracts that was collected by the manual system was coded by NCHS staff. A maximum of seven diagnostic codes were assigned for each sample abstract; in addition, if the medical information included surgical or nonsurgical procedures, a maximum of four codes for these procedures were assigned. The system currently used for coding the diagnoses and procedures on the medical abstract forms, as well as the data that appear on the commercial abstracting services data tapes, is the *International Classification of Diseases, 9th Revision, Clinical Modification*, or ICD-9-CM (3). All of the diagnostic codes and most of the procedure codes in the ICD-9-CM are used with the exception of selected procedure codes in Chapter 16 (see appendix II).

Although the ICD-9-CM has been used for coding NHDS data since 1979, it should be noted that this coding system is not static, but undergoes periodic updating. The volumes used to code the 1989 data are the third edition of the ICD-9-CM. Beginning October 1, 1986, annual addenda to the ICD-9-CM have been published. These addenda, which go into effect on October 1 of affected years, add, delete, or change codes. The actual dates when these coding changes go into effect vary by source of data. Thus for a given data year different codes may refer to the same diagnosis or procedure. Because data are generally presented in this report by aggregated groups of codes, the coding changes have had limited impact.

With two exceptions, the order of diagnoses and procedures for sampled discharges is preserved to reflect the order on the medical record face sheet or in the abstracting service file. One exception is for women admitted for delivery. In this case, a code of V27 from the supplemental classification must be assigned and it must

be listed first. In the other exception, a decision was made to reorder some acute myocardial infarction diagnoses based on accepted medical coding practice. Whenever an acute myocardial infarction is encountered with other circulatory diagnoses and is other than the first entry, it must be reordered to first position.

An ongoing quality control program is undertaken on the coding and entering of data from abstracts to machine readable form. Approximately 5 percent of the abstracts are independently recoded by an NHDS coder, with discrepancies resolved by the chief coder. The overall error rate for records manually coded by NCHS for the 1989 data year was 2.6 percent for medical (ICD-9-CM) coding and entering and 0.5 percent for demographic coding and entering.

Following conversion of the data on the medical abstract to computer tape and combining the data with the automated data tapes, a final medical edit was performed by computer inspection and by a manual review of rejected abstracts. If the sex or age of the patient was incompatible with the recorded medical information, priority was given to the medical information in the editing decision.

Presentation of estimates

Grouping of diagnoses and procedures—In this report, the broadest groupings of disease and injuries shown correspond to ICD-9-CM chapters 1-17 and the supplementary classification of factors influencing health status and contact with health services. The diagnostic categories, the most detailed groupings of diseases and injuries shown, are subsets of the major groups or chapters. The titles and the ordering of the categories in the tabular list developed for NHDS follow the format of the ICD-9-CM tabular list as closely as possible.

The procedure groupings used in this report are the groups numbered 1-16 in the ICD-9-CM section entitled "Procedure Classification." Specific categories of operations or procedures, the most detailed of these groupings shown, are subsets of the major groups and are based on the 4-digit codes provided by the ICD-9-CM.

In developing tables of diagnoses and of procedures, an effort was made to present data for the most frequently occurring conditions or procedures, as well as those of significant public health interest.

Patient characteristics not stated—Age or sex of the patient were not stated for about 1 percent of the sample discharges for 1989. These data were imputed by assigning the patient an age or sex consistent with the age or sex of other sampled patients with the same diagnostic code. Data on race were not available for 11 percent of the discharges, and missing values were not imputed. During 1989, .005 percent of the sampled records lacked an admission or discharge date. For these cases a length of stay was imputed based on age unless the discharge was a newborn or a female with delivery, in which case a length of stay was assigned similar to the length of stay of sampled cases in these categories.

CONFIDENTIAL — All information which would permit identification of an individual or of an establishment will be held confidential, will be used only by persons engaged in and for the purposes of the survey, and will not be disclosed or released to other persons or used for any other purpose.

FORM HDS-1 (12-8-89)

DEPARTMENT OF HEALTH AND HUMAN SERVICES U.S. PUBLIC HEALTH SERVICE NATIONAL CENTER FOR HEALTH STATISTICS

MEDICAL ABSTRACT — NATIONAL HOSPITAL DISCHARGE SURVEY

A. PATIENT IDENTIFICATION

1. Hospital number, 2. HDS number, 3. Medical record number, 4. Date of admission, 5. Date of discharge, 6. Residence ZIP code

B. PATIENT CHARACTERISTICS

7. Date of birth, 8. Age, 9. Sex, 10. Race, 11. Ethnicity, 12. Marital status

13. Expected source(s) of payment

1. Worker's compensation, 2. Medicare, 3. Medicaid, 4. Title V, 5. Other government payments, 6. Blue Cross, 7. Other private or commercial insurance, 8. Self pay, 9. No charge, 10. Other

14. Status/Disposition of patient

Status: 1. Alive, 2. Died, 3. Status not stated. Disposition: a. Routine discharge, b. Left against medical advice, c. Discharged, transferred to another short-term hospital, d. Discharged, transferred to long-term care institution, e. Other disposition/not stated

C. FINAL DIAGNOSES (including E-code diagnoses)

Principal, Other/additional, See reverse side for additional diagnoses

Optional — ICD-9-CM Nos.

D. SURGICAL AND DIAGNOSTIC PROCEDURES

Principal: 1., Other/additional: 2., 3., 4., NONE, See reverse side for additional procedures

Date: Month, Day, Year

Completed by, Date

Figure 1. Medical abstract for the National Hospital Discharge Survey, 1989

In addition to the edits performed by NCHS, data obtained through the automated system may have been edited by an abstract service and had data imputed. The extent of this imputation, if any, is unknown.

Rounded numbers—Estimates in this report have been rounded. Therefore, detailed figures may not add to totals. Rates and percents were calculated using unrounded figures and may not agree with computations made from the rounded data.

Population estimates—The population estimates used in computing rates are from published and unpublished estimates for the U.S. civilian population, including institutionalized persons, on July 1 of the data year provided by the U.S. Bureau of the Census. The estimates by age, sex, race, and geographic region are presented in table III and are consistent with the population estimates published in *Current Population Reports*, Series P-25. Rates computed using these population estimates will be overestimates to the extent that military personnel and non-U.S. citizens use NHDS-eligible hospitals and will be underestimates to the extent that civilians (for example, military dependents or retirees) use hospitals that are not in the NHDS universe, that is, hospitals that are institutional, Federal, military, veteran, or long-stay hospitals that are not general, maternal, or children's general hospitals.

Published and flagged estimates—Estimates are not presented unless a reasonable assumption regarding the probability distribution of the sampling error 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 repeated sampling, its distribution would be approximately normal.

Based on consideration of the complex sample design of the NHDS, the following guidelines are used for presenting the NHDS estimates:

- If the relative standard error of an estimate is larger than 30 percent, the estimate is not shown. Only an asterisk (*) appears in the tables.
- If the sample size is less than 60, the value of the estimate should not be assumed to be reliable. The estimate is preceded by an asterisk (*) in the tables.

Estimation procedures

Statistics from NHDS are derived by a multistage estimation procedure that produces essentially unbiased national estimates and has three basic components: (1) inflation by reciprocals of the probabilities of sample selection, (2) adjustment for nonresponse, and (3) population weighting ratio adjustments. The second and third components were made separately by admission types—that is, for discharges of newborn infants (whose hospital stay began with their own births) and for discharges to other than newborn infants.

Inflation by reciprocals of probabilities of selection—There is one probability for each stage of sampling: (a) the probability of selecting the PSU, (b) the probability of selecting the hospital, and (c) the probability of selecting the discharge within the hospital. The last probability varies monthly and is calculated to be the sample size from the hospital for the month divided by the total number of discharges occurring at the hospital that month. The overall probability of selection is the product of the probabilities at each stage. The inverse of the overall selection probability is the basic inflation weight.

Adjustment for nonresponse—NHDS data were adjusted to account for two types of nonresponse. The first type of nonresponse occurred when an in-scope (NHDS eligible) sample hospital did not respond for more than half of the months during which it was in scope, thus making it a nonrespondent hospital. In this case, the weights of discharges from hospitals similar to the nonrespondent hospitals were inflated to account for discharges represented by the nonrespondent hospitals. For this purpose, hospitals were judged to be similar if they were in the same region, hospital specialty-size group, and if possible, the same sampling stratum (that is, the same abstracting status group if the nonrespondent hospital was in the 12 largest PSU's and in the same PSU, otherwise). The adjustments for this nonresponse were made separately for admission types—that is, for discharges of newborn infants and for all other discharges. The adjustment consisted of a ratio for which the numerator was the weighted number of discharges of the admission type in all similar sample hospitals (regardless of response status) and the denominator was the weighted total of discharges of that admission type from the hospitals similar to the nonrespondent hospitals. Data on the number of discharges for each admission type for each hospital came from either the hospitals or the April 1990 SMG Hospital Market Data Tape (2).

The second type of nonresponse occurred when NCHS failed to collect all the discharge abstracts expected (the number expected is the product of the hospital's total discharges each month and the discharge sampling rate assigned to the hospital). In each month when the hospital was respondent (at least half the expected abstracts were collected), the weights of abstracts collected for the month were inflated to account for the missing abstracts. For a hospital's month(s) of nonresponse, the weights of discharges in the hospital's respondent months were inflated by ratios that varied with discharge groups defined by the ICD-9-CM diagnostic classes of those discharges' first-listed diagnoses. The adjustment ratio for each partially respondent hospital and each discharge group was calculated using only data from sample hospitals that were both NHDS eligible and respondent for all 12 months of the data year. The ratio had as its numerator the weighted sum of discharges in that discharge group for all months in which the partially respondent hospital was in scope and had as its denominator the weighted sum of discharges in that discharge group

Table III. Civilian population, by selected characteristics: United States, 1989

[Population estimates consistent with Series P-25, *Current Population Reports*, U.S. Bureau of the Census]

Age, geographic region, and race	Both sexes	Male	Female
Population in thousands			
All ages			
Total	246,552	119,467	127,084
Region:			
Northeast	50,658	24,235	26,422
Midwest	60,007	29,169	30,839
South	84,653	40,808	43,845
West	51,234	25,256	25,978
Race:			
White	207,667	101,045	106,622
Black	30,346	14,281	16,065
All other	8,538	4,141	4,397
Under 15 years			
Total	53,914	27,608	26,306
Under 1 year	3,945	2,020	1,925
1-4 years	14,807	7,578	7,230
5-14 years	35,162	18,010	17,151
Region:			
Northeast	10,098	5,171	4,926
Midwest	13,041	6,686	6,356
South	18,842	9,642	9,201
West	11,932	6,110	5,823
Race:			
White	43,252	22,193	21,060
Black	8,371	4,254	4,117
All other	2,291	1,163	1,130
15-44 years			
Total	115,203	56,949	58,251
15-24 years	35,809	17,829	17,980
25-34 years	43,177	21,362	21,814
35-44 years	36,217	17,758	18,457
Region:			
Northeast	23,302	11,420	11,882
Midwest	27,961	16,914	14,048
South	39,342	19,305	20,037
West	24,597	12,313	12,287
Race:			
White	96,287	48,012	48,275
Black	14,656	6,860	7,796
All other	4,258	2,078	2,181
45-64 years			
Total	46,451	22,272	24,178
45-54 years	24,859	12,074	12,785
55-64 years	21,592	10,198	11,393
Region:			
Northeast	10,319	4,898	5,421
Midwest	11,264	5,444	5,820
South	15,828	7,513	8,316
West	9,040	4,419	4,622
Race:			
White	40,306	19,494	20,813
Black	4,765	2,142	2,623
All other	1,380	636	743

Table III. Civilian population, by selected characteristics: United States, 1989—Con.

[Population estimates consistent with Series P-25, *Current Population Reports*, U.S. Bureau of the Census]

Age, geographic region, and race	Both sexes	Male	Female
Population in thousands			
65 years and over			
Total	30,984	12,636	18,348
65-74 years	18,182	8,095	10,087
75-84 years	9,761	3,691	6,070
85 years and over	3,042	850	2,192
Region:			
Northeast	6,941	2,748	4,193
Midwest	7,740	3,125	4,615
South	10,640	4,347	6,293
West	5,663	2,416	3,247
Race:			
White	27,822	11,347	16,475
Black	2,555	1,025	1,529
All other	607	264	344

that occurred in the months when the partially respondent hospital did respond to the NHDS.

Population weighting ratio adjustment—Adjustments were made within each of 16 noncertainty hospital groups defined by region and hospital specialty-size classes to adjust for oversampling or undersampling of discharges reported in the sampling frame for the data year. For discharges other than newborn infants, the adjustment is a multiplicative factor that had as its numerator the number of admissions reported for the year at sampling frame hospitals within each region-specialty-size group and as its denominator the estimated number of those admissions for that same hospital group. The adjustment for discharges of newborn infants was similar, but numbers of births were used in place of admissions. The ratio numerators were based on the figures obtained from the SMG Hospital Market Data Tape (2) and the ratio denominators were obtained through a simple inflation of the SMG figures for the NHDS sample hospitals.

Reliability of estimates

Nonsampling errors—As from any survey, results are subject to nonsampling errors, which include errors that are due to sampling frame errors, hospital nonresponse, missing abstracts, and recording processing errors. The magnitude of the nonsampling errors cannot be determined. However, errors resulting from the exclusion of in-scope hospitals from the sampling frame are believed to be small because the hospitals excluded are hospitals that opened after the frame was constructed and, hence, they tend to have few discharges relative to hospitals that are in the frame. Other nonsampling errors are kept to a minimum by methods built into the survey procedures, such as training the data collectors in sampling and data abstract-

Table IV. Estimated parameters for relative standard error equations for National Hospital Discharge Survey statistics, by selected characteristics: United States, 1989

Characteristic	Number of discharges, first-listed diagnoses, or all-listed diagnoses		Number of days of care		Number of procedures	
	a	b	a	b	a	b
Total	0.00360	171.428	0.00404	1,438.643	0.00440	477.756
Sex						
Male	0.00271	348.880	0.00311	1,853.369	0.00388	444.732
Female	0.00235	338.538	0.00253	1,907.568	0.00373	457.376
Age						
Under 15 years	0.02168	107.150	0.01976	1,248.390	0.02644	386.539
15-44 years	0.00341	165.558	0.00298	1,225.181	0.00376	445.183
45-64 years	0.00295	252.955	0.00278	1,551.060	0.00376	483.766
65 years and over	0.00281	202.073	0.00295	2,110.341	0.00383	468.438
Region						
Northeast	0.00380	132.181	0.00432	972.782	0.00456	331.430
Midwest	0.01126	252.898	0.01289	1,493.015	0.01426	491.416
South	0.00588	175.845	0.00436	1,408.247	0.00854	452.325
West	0.01397	245.475	0.01456	1,361.642	0.01387	541.125
Source of payment						
Worker's compensation	0.09774	131.797	0.09045	1,254.533	0.05758	676.201
Medicare	0.00312	135.077	0.00278	2,855.345	0.00387	490.505
Medicaid	0.00782	236.341	0.00773	1,118.298	0.00889	428.063
Not stated	0.06014	191.519	0.07067	1,495.250	0.04419	401.993
Other government	0.06081	80.392	0.03949	1,337.799	0.04530	407.568
Private	0.00260	334.495	0.00249	1,876.942	0.00356	459.851
Self	0.00933	120.238	0.00685	1,149.513	0.00765	404.609
No charge/other	0.04640	89.485	0.04959	715.794	0.03583	282.989
Race						
White	0.00310	334.682	0.00338	1,849.206	0.00444	464.726
All other	0.00882	138.995	0.00102	959.452	0.00874	354.609
Not stated	0.04049	129.920	0.03664	1,521.213	0.03849	548.402

NOTE: The relative standard error (RSE) for an estimate (x) can be determined from the equation $RSE(X) = \sqrt{a + b/x}$.

tion, quality checks of sampling and abstracting, manual and computer editing, and verification of keypunching and coding. Some nonsampling errors are discussed under "Presentation of estimates."

Sampling errors—Because the statistics presented in this report are based on a sample, they may differ from the figures that would be obtained if a complete census had been taken using the same forms, definitions, instructions, and procedures. However, the probability design of NHDS permits the calculation of sampling errors. The standard error is primarily a measure of sampling variability that occurs by chance because only a sample rather than the entire population is surveyed. The standard error, as calculated for the NHDS, also reflects part of the variation that arises in the measurement process, but does not include estimates of any systematic bias. The chances are about 68 in 100 that an estimate from the sample would differ from a complete census by less than the standard error. The chances are about 95 in 100 that the difference would be less than twice the standard error, and about 99 in 100 that it would be less than 2.5 times as large.

The relative standard error of an estimate is obtained by dividing the standard error by the estimate. The resulting value is multiplied by 100, which expresses the relative standard error 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 was published (7).

Relative standard errors for aggregate estimates—The constants for relative standard error curves for the National Hospital Discharge Survey aggregate statistics by statistic type are presented in table IV. The relative standard error [RSE (X)] of an estimate X may be estimated from the formula:

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

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

Relative standard errors for estimates of percents—The relative standard errors for a percent $100 * p$ ($0 < p < 1$) may be calculated directly using the formula:

$$RSE(p) = 100\sqrt{b * (1-p)/(p * X)}$$

where $100 * p$ is the percent of interest, X is the base of the percent, and b is the parameter b in the formula for approximating the $RSE(X)$. The values for b are given in table IV.

The approximation is valid if the relative standard error of the denominator is less than 0.05 or the relative standard errors of the numerator and denominator are both less than 0.10 (8,9).

RSE for average length of stay and other averages, ratios, or rates where the numerator is not a subclass of the denominator—If the denominator of the rate is a number produced by the U.S. Bureau of the Census for the total U.S. population or one or more of the age-sex-race groups of the total population, then the approximate relative standard error of the rate is equivalent to the relative standard error of the numerator that can be obtained from table IV.

If the numerator X and denominator Y are both estimated from the NHDS, then the relative standard error of the ratio X/Y is approximated by

$$RSE(X/Y) = \sqrt{[RSE(X)]^2 + [RSE(Y)]^2}$$

This approximation is valid if the relative standard error of the denominator is less than 0.05 or the relative standard errors of the numerator and denominator are both less than 0.10 (8,9).

Estimates of differences between two statistics—The relative standard errors shown in this appendix are not directly applicable to differences between two sample estimates. The standard error of a difference is approximately the square root of the sum of squares of each standard error considered separately. This formula represents the standard error quite accurately for the difference between separate and uncorrelated characteristics, although it is only a rough approximation in most other cases.

Tests of significance—In this report, the determination of statistical inference is based on the two-sided t -test with a critical value of 1.96 (0.05 level of significance). Terms such as “higher” and “less” that relate to 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 significant.

Appendix II

Definitions of certain terms used in this report

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 and 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.

Rate of days of care—The ratio of the number of days of care accumulated during a year to the number of persons in the civilian population on July 1 of that year.

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) listed on the medical record of a patient. (See "Medical coding and edit" in the "Data collection and processing" section of appendix I for further detail.)

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.

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

Normal delivery—A normal delivery is a delivery without abnormality or complication of pregnancy, childbirth, or the puerperium and with spontaneous cephalic delivery (that is, presentation of the child head first and delivery of the child without external aid). If no mention of fetal manipulation or instrumentation is made, ICD-9-CM code 650 is assigned.

Complicated delivery—All deliveries not considered normal, including deliveries of multiple gestation, are included; ICD-9-CM code numbers 640-648 and 651-676 are assigned.

Terms relating to procedures

Discharges with procedures—The estimated number of patients discharged from non-Federal short-stay hospitals during the year who underwent at least one procedure during their hospitalization are termed "discharges with procedures."

Procedure—A surgical or nonsurgical operation, diagnostic procedure, or special treatment reported on the medical record of a patient. (See "Medical coding and edit" in the "Data collection and processing" section of appendix I for further details.) The following ICD-9-CM procedure codes are not used in the NHDS:

87.09, 87.11-87.12, 87.16-87.17, 87.22-87.29, 87.39, 87.43-87.49, 87.85, 87.89, 87.92, 87.95, 87.99, 88.09, 88.16, 88.19, 88.21-88.29, 88.31, 88.33, 88.35, 88.37, 88.39, 89.01-89.09, 89.11-89.13, 89.15-89.16, 89.26, 89.29, 89.31, 89.33-89.39, 89.7, 89.8, 90.01-90.99, 91.01-91.99, 93.01-93.09, 93.11-93.19, 93.21-93.25, 93.27, 93.28, 93.31-93.39, 93.61-93.67, 93.71-93.78, 93.81-93.89, 94.01-94.19, 94.21-94.23, 94.29, 94.31-94.39, 94.41-94.49, 94.51-94.59, 95.01-95.03, 95.05-95.09, 95.14-95.15,

95.31–95.36, 95.41–95.48, 96.11–96.19, 96.26–96.28, 96.34–96.39, 96.41–96.48, 96.51–96.59, 96.6, 97.01–97.04, 97.14–97.16, 97.21–97.29, 97.31–97.39, 97.41–97.49, 97.51–97.59, 97.61–97.69, 97.72–97.79, 97.81–97.87, 97.89, 99.12–99.13, 99.14, 99.16–99.18, 99.26–99.29, 99.31–99.39, 99.41–99.48, 99.51–99.59

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.

Surgical operations—All procedures except those listed under “nonsurgical procedures” are listed as surgical operations.

Nonsurgical procedures—Procedures generally not considered to be surgery are listed as nonsurgical procedures. These include diagnostic endoscopy and radiography, radiotherapy and related therapies, physical medicine and rehabilitation, and other nonsurgical procedures. The following ICD–9–CM are for diagnostic and nonsurgical procedures:

01.18–01.19, 03.31, 03.39, 04.19, 05.19, 06.19, 07.19, 08.19, 09.19, 09.41–09.49, 10.29, 11.29, 12.29, 14.19, 15.09, 16.21, 16.29, 18.01, 18.11, 18.19, 20.31, 20.39, 21.00–21.02, 21.21, 21.29, 22.19, 24.19, 25.09, 26.19, 27.29, 28.19, 29.11, 29.19, 31.41–31.42, 31.48–31.49, 33.21–33.23, 33.29, 34.21–34.22, 34.28–34.29, 37.26–37.27, 37.29, 38.29, 39.95, 40.19, 41.38–41.39, 42.22–42.23, 42.29, 44.11–44.13, 44.19, 45.11–45.13, 45.19, 45.21–45.24, 45.28–45.29, 48.21–48.23, 48.29, 49.21, 49.29, 50.19, 51.10–51.11, 51.19, 52.19, 54.21, 54.29, 55.21–55.22, 55.29, 56.31, 56.35, 56.39, 57.31–57.32, 57.39, 57.94–57.95, 58.21–58.22, 58.29, 59.29, 60.18–60.19, 61.19, 62.19, 63.09, 64.19, 64.94, 65.19, 66.19, 67.19, 68.11, 68.19, 69.92, 70.21–70.22, 70.29, 71.19, 73.4, 73.51–73.59, 73.91–73.92, 75.31–75.32, 75.34–75.35, 75.94, 76.19, 78.80–78.89, 80.20–80.29, 81.98, 83.29, 84.41–84.43, 84.45–84.47, 85.19, 86.19, 86.92, 87–99.

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.

Demographic terms

Population—The United States resident population excluding members of the Armed Forces.

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

Race—Patients are classified into two or three groups. The two groups are “white” and “all other,” with all other including all categories other than white. Three groups are shown in table E, “white,” “black,” and “all other,” with all other including all categories other than white or black. In addition, 11 percent of the patients had no race stated on the face sheet of the medical record.

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

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