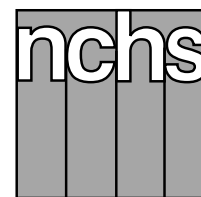


# Advance Data



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

## 1998 Summary: National Hospital Discharge Survey

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### Abstract

**Objectives**—This report presents national estimates of the use of non-Federal short-stay hospitals in the United States during 1998. Numbers and rates of discharges, diagnoses, and procedures are shown by age and sex. Discharges are also shown by geographic region of hospitals. Average lengths of stay are presented for all discharges and for selected diagnostic categories by age and by sex.

**Methods**—The estimates are based on medical abstract data collected through the National Hospital Discharge Survey for 1998. The survey has been conducted annually by the National Center for Health Statistics since 1965. Diagnoses and procedures presented are coded according to the *International Classification of Diseases, 9th Revision, Clinical Modification*, or ICD-9-CM.

**Results**—In 1998, there were an estimated 31.8 million discharges of inpatients, excluding newborn infants, from short-stay non-Federal hospitals in the United States. The discharge rate was 1,165.3 per 10,000 population and the average length of stay was 5.1 days. Six diagnostic categories each accounted for more than a million discharges. These were heart disease, delivery, malignant neoplasms, pneumonia, psychoses, and cerebrovascular disease. There were 41.5 million procedures performed on hospital inpatients during the same year. Almost three-fourths of all procedures were in four ICD-9-CM chapters: miscellaneous diagnostic and therapeutic procedures, obstetrical procedures, operations on the cardiovascular system, and operations on the digestive system.

**Keywords:** inpatients • diagnoses • procedures • ICD-9-CM

### Introduction

This report presents data from the 1998 National Hospital Discharge Survey (NHDS). The survey has been conducted continuously by the National Center for Health Statistics (NCHS) since 1965. National estimates of hospital use derived from NHDS are published for each calendar year by NCHS. This report provides an overview of the 1998 data, including the number and rate of discharges and average lengths of stay by the age and sex of patients and by geographic region of hospitals. Average lengths of stay are also presented for selected diagnostic categories. Estimates for the number and rate of selected procedures performed on hospital inpatients are shown by age and sex ([tables 1-11](#)). More detailed data from the NHDS are published in Series 13 of *Vital and Health Statistics*, which includes two reports on trends in hospital use (1,2).

### Acknowledgments

This report was prepared in the Division of Health Care Statistics. Staff in the Hospital Care Statistics Branch verified the data. Rong Cai, of the OAO Corporation, was contracted to produce estimated parameters for relative standard error equations; she also performed the computer programming for the report. This report was edited by Klaudia M. Cox and typeset by Annette F. Holman of the Publications Branch, Division of Data Services.



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



NHDS is the principal source for national data on the characteristics of patients discharged from non-Federal short-stay hospitals. Data from NHDS are used to examine important topics of interest in public health (3–7) and for a variety of activities by governmental, scientific, academic, and commercial institutions.

Estimates of the number of procedures shown in this report are for inpatients only. Data on ambulatory surgery are available from the National Survey of Ambulatory Surgery (NSAS), which is also conducted by NCHS. NSAS was conducted from 1994 through 1996 and covers hospital-based and free-standing ambulatory surgery centers. Data from the three years of this survey have been published (8–13).

Information on ambulatory procedures is also collected in two other NCHS surveys. The National Ambulatory Medical Care Survey obtains information on procedures ordered or performed during visits to physicians' offices (14). The National Hospital Ambulatory Medical Care Survey collects data on procedures ordered or performed during visits to hospital outpatient and emergency departments (15,16).

## Highlights

### Patient and hospital characteristics

- In 1998, there were an estimated 31.8 million discharges of inpatients, excluding newborn infants, from short-stay non-Federal hospitals in the United States (table 1).
- The discharge rate was 1,165.3 per 10,000 population and the average length of stay was 5.1 days in 1998 (table 1).
- The discharge rate per 10,000 population was 934.7 for males and 1,385.3 for females. Males had an average length of stay of 5.5 days compared with 4.7 days for females.
- Persons 65 years of age and over accounted for 39 percent of all discharges (figure 1).
- The discharge rate per 10,000 population ranged from 1,308.7 in the Northeast region to 918.0 in the West.

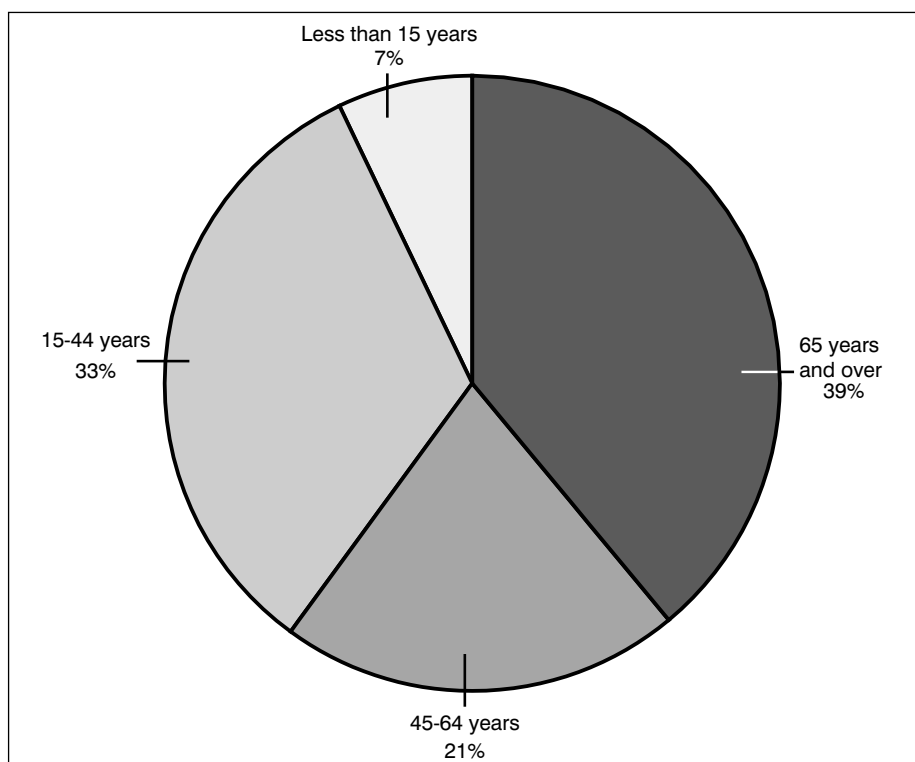


Figure 1. Percent of hospital discharges by age: United States, 1998

The average length of stay ranged from 5.8 days in the Northeast region to 4.6 days in the West.

8.7 days for psychoses (table 4) (figure 3).

### Diagnoses

- Over half of all first-listed diagnoses were in four ICD-9-CM chapters: diseases of the circulatory system, supplementary classifications (including females with deliveries), diseases of the respiratory system, and diseases of the digestive system (table 2).
- Six diagnostic categories each accounted for more than a million discharges. These were heart disease (4.3 million), delivery (4.0 million), malignant neoplasms (1.3 million), pneumonia (1.3 million), psychoses (1.3 million), and cerebrovascular disease (1.0 million) (figure 2).
- For persons 65 years of age and over, there were 829.5 discharges per 10,000 population with a first-listed diagnosis of heart disease (table 3).
- The average length of stay was 2.5 days for delivery, 4.9 days for heart disease, 5.9 days for cerebrovascular disease, 6.0 days for pneumonia, 7.2 days for malignant neoplasms, and

### Procedures

- During 1998, 41.5 million procedures were performed on hospital inpatients (table 8).
- Almost three-fourths of all procedures were included in four ICD-9-CM chapters: miscellaneous diagnostic and therapeutic procedures, obstetrical procedures, operations on the cardiovascular system, and operations on the digestive system (figure 4).
- Frequent procedures for males were arteriography and angiocardiology, cardiac catheterization, removal of coronary artery obstruction and insertion of stent(s), respiratory therapy, diagnostic ultrasound, and computerized axial tomography.
- Frequent procedures for females were episiotomy, repair of current obstetric laceration, cesarean section, arteriography and angiocardiology, artificial rupture of membranes, hysterectomy, and diagnostic ultrasound.

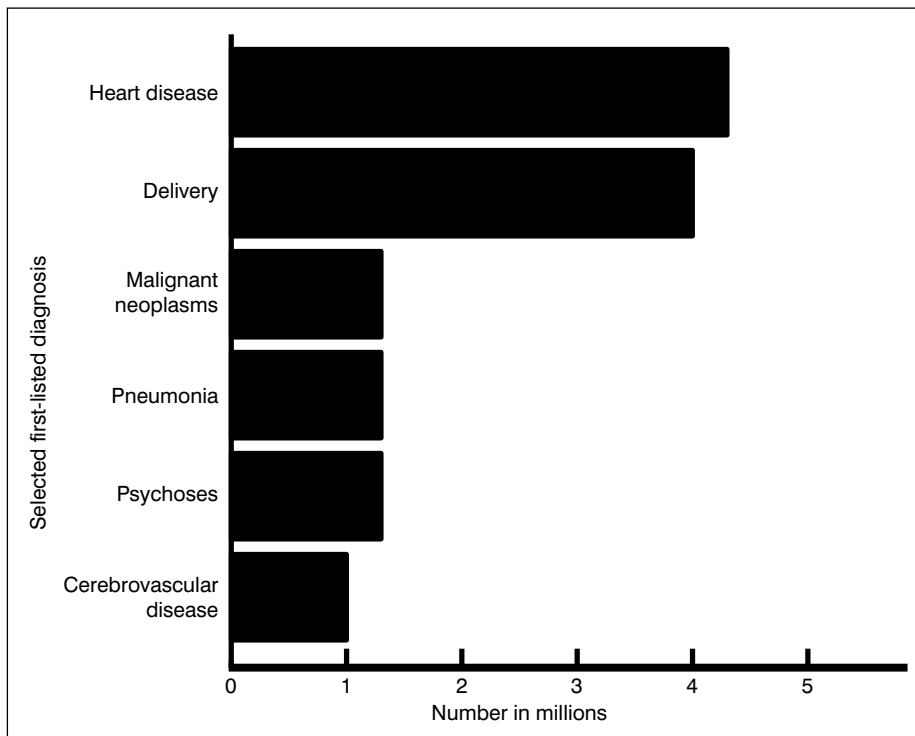


Figure 2. Number of selected first-listed diagnoses for hospital discharges: United States, 1998

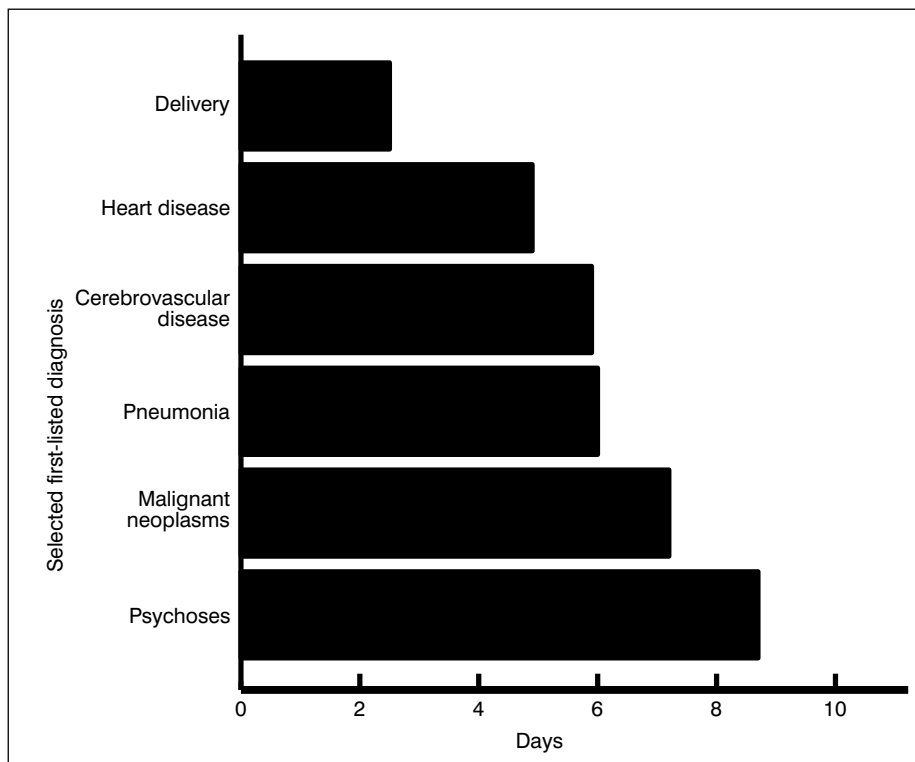


Figure 3. Average length of hospital stay for discharges with selected first-listed diagnoses: United States, 1998

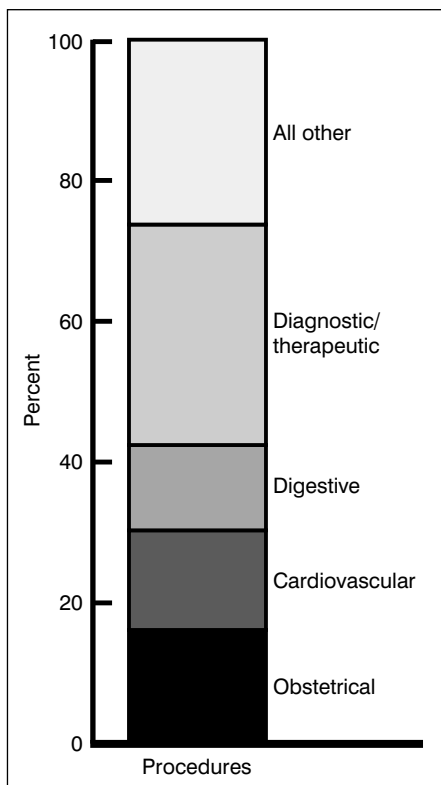
## Methods

### Data source

The National Hospital Discharge Survey (NHDS) collects data from a sample of inpatient records acquired from a national sample of hospitals. Because persons with multiple discharges during the year may be sampled more than once, estimates are for discharges, not persons. Only hospitals with an average length of stay of fewer than 30 days for all patients, general hospitals, or children's general hospitals are included in the survey. Federal, military, and Department of Veterans Affairs hospitals, as well as hospital units of institutions (such as prison hospitals), and hospitals with fewer than six beds staffed for patient use are excluded.

Prior to 1988, NHDS utilized a two-stage design, but in 1988 the survey was redesigned (17). Beginning in 1988, the largest hospitals were included in the sample with certainty, while the remaining sample of hospitals was based on a stratified three-stage design. The first stage consisted of a selection of 112 primary sampling units (PSU's) that comprised a probability sample of PSU's used in the 1985-94 National Health Interview Survey (18). The second stage consisted of a selection of noncertainty hospitals from the sampled PSU's. At the third stage, a sample of discharges within hospitals was selected by a systematic random sampling technique. The sampling frame for hospitals drawn under the new design has been the SMG Hospital Market Database (19).

For 1998, the sample consisted of 513 hospitals, of which 18 were found to be out of scope (ineligible) because they had gone out of business or otherwise failed to meet the criteria for the NHDS universe. Of the 495 in-scope (eligible) hospitals, 478 (96.6 percent) responded to the survey. Data were collected for approximately 307,000 discharges from the 478 responding hospitals.



**Figure 4. Percent distribution of all-listed inpatient procedures: United States, 1998**

Two data collection procedures were used in the survey. One was a manual system in which sample selection and medical transcription from the hospital records to abstract forms were performed by the hospital's staff or by staff of the U.S. Bureau of the Census on behalf of NCHS. Completed forms were sent to NCHS for coding, editing, and estimation.

The other data collection procedure was an automated system in which NCHS purchased machine-readable medical record data from commercial organizations, State data systems, hospitals, or hospital associations. Records from these sources were systematically sampled by NCHS. In 1998, approximately 41 percent of respondent hospitals provided data through the automated system.

The medical abstract form and the automated data contain items that relate to the personal characteristics of the patient. These items include birth date (or age), sex, race, ethnicity, marital status, ZIP code, and expected sources of payment. Administrative items such as admission and discharge dates,

discharge status, and medical record number were also included. The medical information about patients includes up to seven diagnoses, as many as four surgical and nonsurgical operations and procedures, and dates of surgery. (The medical record number, date of birth, and ZIP code are confidential information not available to the public). Medical data are coded according to the *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD-9-CM) (20). Definitions of the terms used in this report are in the National Hospital Discharge Survey Annual Summary for 1993 (21).

For the manual data collection, an ongoing quality control program was undertaken on the coding and entering of data from abstracts to machine-readable form. Approximately 10 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 for the 1998 data year was 1.3 percent for medical (ICD-9-CM) coding and keying and 0.2 percent for demographic coding and keying.

### Estimation

Because of the complex multistage design of NHDS, the survey data must be inflated or weighted in order to produce national estimates. The estimation procedure produces essentially unbiased national estimates and has three basic components: (a) inflation by reciprocals of the probabilities of sample selection, (b) adjustment for nonresponse, and (c) population weighting ratio adjustments. These three components of the final weight are described in more detail in earlier reports (1,2).

The standard error is primarily a measure of sampling variability that occurs by chance because only a sample rather than the entire universe is surveyed. Estimates of the sampling variability for this report were calculated with SUDAAN software, which takes into account the complex sample design. A description of the software and the approach it uses has been published (22). The standard errors of statistics for

the 1998 NHDS Advance Data are included in each of the tables.

### Use of tables

Discharges are shown in this report by first-listed diagnosis. This is the principal diagnosis if it is specified on the medical record. If the principal diagnosis is not specified, the diagnosis listed first on the face sheet or discharge summary of the medical record is used. Estimates of procedures, including surgical or nonsurgical operations, diagnostic procedures, and special treatments reported on the medical record, are also published. Up to four procedures were coded for each discharge. All-listed procedures include all occurrences of the procedure coded regardless of the order on the medical record.

The diagnoses and procedures appear in separate tables of this report, presented by chapter of ICD-9-CM. Within these chapters, subcategories of diagnoses or procedures are shown. These specific categories were selected primarily because of their large estimates or because they are of special interest. Although diagnoses assigned ICD-9-CM codes E800-E999 (Supplementary classification of external causes of injury and poisoning) were included in NHDS, these diagnoses were excluded from this report. Data for newborn infants, defined as patients admitted to a hospital by birth, were also excluded.

Because of low reliability, estimates with a relative standard error of more than 30 percent or that are based on a sample of fewer than 30 records are replaced by asterisks (\*). Estimates based on 30-59 patient records are preceded by an asterisk to indicate that they also have low reliability.

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

The population estimates used in computing rates are based on U.S. Bureau of the Census estimates of the

civilian population of the United States as of July 1, 1998. Figures are consistent with national population estimates in US-98-SIS-7 (U.S. Population Estimates by Age, Sex, Race and Hispanic Origin: 1998) and have been adjusted for net underenumeration using the 1990 National Population Adjustment Matrix.

Facilities 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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**Table 1. Number, rate, and average length of stay for discharges from short-stay hospitals by age, region, and sex: United States, 1998**

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

Selected characteristic	Both sexes		Male		Female	
	Number	SE <sup>1</sup>	Number	SE <sup>1</sup>	Number	SE <sup>1</sup>
			Number in thousands			
Total . . . . .	31,827	949	12,469	425	19,358	554
Age						
Under 15 years . . . . .	2,299	262	1,303	151	996	113
15–44 years . . . . .	10,376	312	2,718	109	7,659	245
45–64 years . . . . .	6,696	221	3,286	116	3,410	114
65 years and over . . . . .	12,456	440	5,162	204	7,293	246
Region						
Northeast . . . . .	6,818	348	2,855	171	3,964	186
Midwest . . . . .	7,366	527	2,924	230	4,442	303
South . . . . .	12,022	644	4,552	285	7,470	382
West . . . . .	5,621	294	2,139	133	3,482	186
			Rate per 10,000 population			
Total . . . . .	1,165.3	34.8	934.7	31.9	1,385.3	39.7
Age						
Under 15 years . . . . .	383.4	43.8	424.7	49.2	340.1	38.7
15–44 years . . . . .	850.6	25.5	446.0	17.8	1,254.1	40.2
45–64 years . . . . .	1,173.0	38.7	1,187.6	41.8	1,159.3	38.9
65 years and over . . . . .	3,652.7	129.0	3,654.4	144.7	3,651.5	123.1
Region						
Northeast . . . . .	1,308.7	66.9	1,132.3	67.7	1,473.9	69.0
Midwest . . . . .	1,165.2	83.3	948.0	74.5	1,372.2	93.6
South . . . . .	1,244.7	66.7	972.7	60.8	1,500.4	76.7
West . . . . .	918.0	48.1	700.1	43.6	1,134.9	60.6
			Average length of stay in days			
Total . . . . .	5.1	0.1	5.5	0.1	4.7	0.1
Age						
Under 15 years . . . . .	4.6	0.2	4.7	0.2	4.5	0.2
15–44 years . . . . .	3.7	0.1	5.1	0.1	3.2	0.1
45–64 years . . . . .	5.1	0.1	5.3	0.1	5.0	0.1
65 years and over . . . . .	6.2	0.1	6.1	0.1	6.2	0.1
Region						
Northeast . . . . .	5.8	0.2	6.1	0.2	5.5	0.1
Midwest . . . . .	4.7	0.1	5.1	0.1	4.5	0.1
South . . . . .	5.1	0.1	5.6	0.1	4.7	0.1
West . . . . .	4.6	0.2	5.2	0.2	4.2	0.2

<sup>1</sup>SE is standard error.

**Table 2. Number of discharges from short-stay hospitals by first-listed diagnosis and age: United States, 1998**[Discharges of inpatients 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)*]

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	SE <sup>1</sup>	Number	SE <sup>1</sup>	Number	SE <sup>1</sup>	Number	SE <sup>1</sup>	Number	SE <sup>1</sup>
	Number in thousands									
All conditions . . . . .	31,827	949	2,299	262	10,376	312	6,696	221	12,456	440
Infectious and parasitic diseases . . . . . 001-139	866	44	178	24	209	12	145	9	335	19
Septicemia . . . . . 038	347	22	17	2	34	4	62	5	234	16
Neoplasms . . . . . 140-239	1,706	66	34	8	302	15	579	24	790	36
Malignant neoplasms . . . . . 140-208,230-234	1,266	51	23	5	124	8	410	18	708	34
Malignant neoplasm of large intestine and rectum . . . . . 153-154,197.5	169	10	*	*	*	*	41	4	120	9
Malignant neoplasm of trachea, bronchus, and lung . . . . . 162,176.4,197.0,197.3	165	10	*	*	9	1	55	4	99	8
Malignant neoplasm of breast . . . . . 174-175,198.81	124	7	*	*	13	2	55	5	56	5
Benign neoplasms . . . . . 210-229	389	20	*	*	169	10	157	11	53	4
Endocrine, nutritional and metabolic diseases, and immunity disorders . . . . . 240-279	1,332	48	139	15	272	13	329	15	592	24
Diabetes mellitus . . . . . 250	513	22	22	4	131	9	161	9	200	11
Volume depletion . . . . . 276.5	448	23	92	9	60	7	69	7	228	12
Diseases of the blood and blood-forming organs . . . . . 280-289	358	19	49	8	99	7	62	4	148	15
Mental disorders . . . . . 290-319	1,974	217	111	22	1,162	151	423	43	277	19
Psychoses . . . . . 290-299	1,253	139	46	12	711	95	267	29	229	16
Alcohol dependence syndrome . . . . . 303	179	27	*	*	112	18	55	9	11	2
Diseases of the nervous system and sense organs . . . . . 320-389	511	26	83	12	122	8	112	9	193	11
Diseases of the circulatory system . . . . . 390-459	6,272	241	30	6	395	15	1,753	76	4,094	163
Heart disease . . . . . 391-392.0,393-398,402,404,410-416,420-429	4,335	180	17	4	241	10	1,248	59	2,829	121
Acute myocardial infarction . . . . . 410	783	41	*	*	42	3	239	15	500	29
Coronary atherosclerosis . . . . . 414.0	1,094	73	*	*	48	4	428	32	618	43
Other ischemic heart disease . . . . . 411-413,414.1-414.9	308	25	*	*	21	3	115	9	172	17
Cardiac dysrhythmias . . . . . 427	670	27	5	2	48	4	153	9	464	20
Congestive heart failure . . . . . 428.0	978	42	*	*	25	2	175	12	773	33
Cerebrovascular disease . . . . . 430-438	1,010	41	*5	*1	41	4	218	11	746	32
Diseases of the respiratory system . . . . . 460-519	3,403	129	632	72	396	18	653	29	1,721	73
Acute bronchitis and bronchiolitis . . . . . 466	219	17	136	16	14	2	20	4	49	6
Pneumonia . . . . . 480-486	1,328	56	211	21	131	8	226	14	760	36
Chronic bronchitis . . . . . 491	498	27	*	*	18	3	138	11	342	19
Asthma . . . . . 493	423	33	166	28	104	6	92	9	60	5
Diseases of the digestive system . . . . . 520-579	3,046	87	210	26	771	26	798	25	1,266	42
Appendicitis . . . . . 540-543	249	13	57	6	142	9	37	4	13	2
Noninfectious enteritis and colitis . . . . . 555-558	275	15	62	9	80	6	47	4	86	6
Diverticula of intestine . . . . . 562	230	11	*	*	19	2	67	5	144	9
Cholelithiasis . . . . . 574	358	16	*	*	120	8	100	7	136	8
Diseases of the genitourinary system . . . . . 580-629	1,720	78	70	9	577	29	419	19	653	41
Calculus of kidney and ureter . . . . . 592	177	16	*	*	81	8	63	6	30	4
Complications of pregnancy, childbirth, and the puerperium <sup>2</sup> . . . . . 630-677	512	24	*	*	510	23	*	*	...	...
Diseases of the skin and subcutaneous tissue . . . . . 680-709	517	32	62	17	137	11	130	9	188	13
Cellulitis and abscess . . . . . 681-682	364	18	31	5	101	8	99	7	133	10
Diseases of the musculoskeletal system and connective tissue . . . . . 710-739	1,534	72	42	8	349	18	476	27	667	38
Osteoarthritis and allied disorders . . . . . 715	435	27	*	*	10	2	130	9	295	21
Intervertebral disc disorders . . . . . 722	352	22	*	*	158	12	140	11	53	5
Congenital anomalies . . . . . 740-759	197	32	136	28	33	5	20	3	8	2
Certain conditions originating in the perinatal period . . . . . 760-779	150	26	150	26	*	*	*	*	*	*
Symptoms, signs, and ill-defined conditions . . . . . 780-799	297	18	56	6	105	8	70	5	66	12
Injury and poisoning . . . . . 800-999	2,540	93	234	30	792	38	524	23	991	37
Fractures, all sites <sup>3</sup> . . . . . 800-829	966	43	76	8	231	13	151	12	508	24
Fracture of neck of femur <sup>3</sup> . . . . . 820	329	21	*	*	8	1	23	5	294	18
Poisonings . . . . . 960-989	198	13	23	4	122	11	32	3	21	2
Supplementary classifications . . . . . V01-V82	4,892	167	80	12	4,145	161	202	16	466	47
Females with deliveries . . . . . V27	4,000	159	7	1	3,990	159	*3	*1	...	...

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

... Category not applicable.

<sup>1</sup>SE is standard error.<sup>2</sup>First-listed diagnosis for females with deliveries is coded V27, shown under "Supplementary classifications."<sup>3</sup>Excludes fractures coded as 733.1, pathologic fracture.

**Table 3. Rate of discharges from short-stay hospitals by age and first-listed diagnosis: United States, 1998**[Discharges of inpatients 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)*]

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	
	Rate	SE <sup>1</sup>	Rate	SE <sup>1</sup>	Rate	SE <sup>1</sup>	Rate	SE <sup>1</sup>	Rate	SE <sup>1</sup>
	Rate per 10,000 population									
All conditions . . . . .	1,165.3	34.8	383.4	43.8	850.6	25.5	1,173.0	38.7	3,652.7	129.0
Infectious and parasitic diseases . . . . . 001-139	31.7	1.6	29.6	4.0	17.1	1.0	25.3	1.5	98.3	5.5
Septicemia . . . . . 038	12.7	0.8	2.8	0.4	2.8	0.4	10.9	0.8	68.7	4.8
Neoplasms . . . . . 140-239	62.5	2.4	5.7	1.3	24.8	1.2	101.5	4.3	231.7	10.6
Malignant neoplasms . . . . . 140-208,230-234	46.4	1.9	3.9	0.9	10.2	0.7	71.9	3.1	207.7	10.0
Malignant neoplasm of large intestine and rectum . . . . . 153-154,197.5	6.2	0.4	*	*	*	*	7.2	0.7	35.2	2.6
Malignant neoplasm of trachea, bronchus, and lung . . . . . 162,176.4,197.0,197.3	6.0	0.4	*	*	0.7	0.1	9.6	0.7	29.0	2.2
Malignant neoplasm of breast . . . . . 174-175,198.81	4.5	0.3	*	*	1.0	0.2	9.6	0.8	16.4	1.4
Benign neoplasms . . . . . 210-229	14.2	0.7	*	*	13.8	0.8	27.6	1.9	15.6	1.2
Endocrine, nutritional and metabolic diseases, and immunity disorders . . . . . 240-279	48.8	1.7	23.1	2.5	22.3	1.1	57.7	2.7	173.6	6.9
Diabetes mellitus . . . . . 250	18.8	0.8	3.6	0.7	10.7	0.7	28.2	1.6	58.6	3.3
Volume depletion . . . . . 276.5	16.4	0.9	15.3	1.5	4.9	0.6	12.1	1.3	66.9	3.5
Diseases of the blood and blood-forming organs . . . . . 280-289	13.1	0.7	8.2	1.4	8.1	0.6	10.9	0.7	43.3	4.3
Mental disorders . . . . . 290-319	72.3	8.0	18.5	3.6	95.3	12.4	74.1	7.5	81.3	5.5
Psychoses . . . . . 290-299	45.9	5.1	7.8	2.0	58.3	7.8	46.8	5.1	67.2	4.8
Alcohol dependence syndrome . . . . . 303	6.5	1.0	*	*	9.2	1.5	9.5	1.6	3.2	0.7
Diseases of the nervous system and sense organs . . . . . 320-389	18.7	0.9	13.9	2.0	10.0	0.7	19.7	1.5	56.6	3.2
Diseases of the circulatory system . . . . . 390-459	229.6	8.8	5.0	1.0	32.4	1.3	307.1	13.2	1,200.6	47.8
Heart disease . . . . . 391-392.0,393-398,402,404,410-416,420-429	158.7	6.6	2.9	0.6	19.8	0.8	218.6	10.4	829.5	35.5
Acute myocardial infarction . . . . . 410	28.7	1.5	*	*	3.5	0.3	41.9	2.6	146.7	8.5
Coronary atherosclerosis . . . . . 414.0	40.1	2.7	*	*	3.9	0.3	74.9	5.5	181.3	12.5
Other ischemic heart disease . . . . . 411-413,414.1-414.9	11.3	0.9	*	*	1.7	0.2	20.2	1.7	50.4	5.0
Cardiac dysrhythmias . . . . . 427	24.5	1.0	0.9	0.3	3.9	0.3	26.9	1.5	135.9	5.9
Congestive heart failure . . . . . 428.0	35.8	1.5	*	*	2.1	0.2	30.7	2.1	226.7	9.6
Cerebrovascular disease . . . . . 430-438	37.0	1.5	*0.8	*0.2	3.4	0.3	38.2	2.0	218.7	9.3
Diseases of the respiratory system . . . . . 460-519	124.6	4.7	105.5	12.0	32.5	1.5	114.5	5.0	504.8	21.3
Acute bronchitis and bronchiolitis . . . . . 466	8.0	0.6	22.6	2.6	1.1	0.2	3.6	0.6	14.4	1.8
Pneumonia . . . . . 480-486	48.6	2.1	35.2	3.5	10.7	0.6	39.6	2.4	223.0	10.5
Chronic bronchitis . . . . . 491	18.2	1.0	*	*	1.4	0.3	24.2	1.9	100.2	5.7
Asthma . . . . . 493	15.5	1.2	27.7	4.6	8.6	0.5	16.2	1.6	17.7	1.6
Diseases of the digestive system . . . . . 520-579	111.5	3.2	35.0	4.3	63.2	2.1	139.8	4.3	371.3	12.2
Appendicitis . . . . . 540-543	9.1	0.5	9.5	1.0	11.6	0.8	6.5	0.7	3.8	0.6
Noninfectious enteritis and colitis . . . . . 555-558	10.1	0.6	10.3	1.6	6.6	0.5	8.2	0.7	25.3	1.7
Diverticula of intestine . . . . . 562	8.4	0.4	*	*	1.5	0.2	11.8	0.8	42.2	2.5
Cholelithiasis . . . . . 574	13.1	0.6	*	*	9.8	0.6	17.5	1.2	39.9	2.5
Diseases of the genitourinary system . . . . . 580-629	63.0	2.8	11.7	1.5	47.3	2.4	73.5	3.4	191.4	11.9
Calculus of kidney and ureter . . . . . 592	6.5	0.6	*	*	6.7	0.7	11.1	1.1	8.7	1.2
Complications of pregnancy, childbirth, and the puerperium <sup>2</sup> . . . . . 630-677	18.8	0.9	*	*	41.8	1.9	*	*	...	...
Diseases of the skin and subcutaneous tissue . . . . . 680-709	18.9	1.2	10.4	2.9	11.2	0.9	22.7	1.6	55.2	3.8
Cellulitis and abscess . . . . . 681-682	13.3	0.7	5.1	0.8	8.3	0.6	17.4	1.2	39.1	3.0
Diseases of the musculoskeletal system and connective tissue . . . . . 710-739	56.2	2.6	6.9	1.3	28.6	1.5	83.4	4.7	195.6	11.1
Osteoarthritis and allied disorders . . . . . 715	15.9	1.0	*	*	0.8	0.1	22.8	1.7	86.4	6.1
Intervertebral disc disorders . . . . . 722	12.9	0.8	*	*	13.0	1.0	24.5	2.0	15.7	1.5
Congenital anomalies . . . . . 740-759	7.2	1.2	22.7	4.6	2.7	0.4	3.4	0.5	2.5	0.5
Certain conditions originating in the perinatal period . . . . . 760-779	5.5	0.9	25.1	4.3	*	*	*	*	*	*
Symptoms, signs, and ill-defined conditions . . . . . 780-799	10.9	0.7	9.4	1.0	8.6	0.6	12.2	1.0	19.3	3.4
Injury and poisoning . . . . . 800-999	93.0	3.4	39.0	5.0	64.9	3.1	91.7	4.0	290.6	10.9
Fractures, all sites <sup>3</sup> . . . . . 800-829	35.4	1.6	12.6	1.3	19.0	1.1	26.5	2.1	148.8	7.0
Fracture of neck of femur <sup>3</sup> . . . . . 820	12.0	0.8	*	*	0.6	0.1	4.1	0.8	86.3	5.3
Poisonings . . . . . 960-989	7.2	0.5	3.8	0.6	10.0	0.9	5.7	0.6	6.0	0.7
Supplementary classifications . . . . . V01-V82	179.1	6.1	13.3	2.0	339.8	13.2	35.4	2.8	136.6	13.9
Females with deliveries . . . . . V27	146.5	5.8	1.1	0.2	327.1	13.0	*0.6	*0.1	...	...

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

... Category not applicable.

<sup>1</sup>SE is standard error of rate.<sup>2</sup>First-listed diagnosis for females with deliveries is coded V27, shown under "Supplementary classifications."<sup>3</sup>Excludes fractures coded as 733.1, pathologic fracture.



**Table 4. Average length of stay for discharges from short-stay hospitals by age and first-listed diagnosis: United States, 1998**[Discharges of inpatients 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)*]

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	
	ALOS <sup>1</sup>	SE <sup>2</sup>	ALOS <sup>1</sup>	SE <sup>2</sup>	ALOS <sup>1</sup>	SE <sup>2</sup>	ALOS <sup>1</sup>	SE <sup>2</sup>	ALOS <sup>1</sup>	SE <sup>2</sup>
All conditions . . . . .	5.1	0.1	4.6	0.2	3.7	0.1	5.1	0.1	6.2	0.1
Infectious and parasitic diseases . . . . . 001-139	6.3	0.2	3.8	0.6	6.4	0.5	7.3	0.4	7.1	0.2
Septicemia . . . . . 038	7.6	0.2	4.4	0.3	9.3	1.3	7.8	0.4	7.6	0.3
Neoplasms . . . . . 140-239	6.4	0.2	7.0	1.0	4.5	0.2	5.6	0.2	7.6	0.3
Malignant neoplasms . . . . . 140-208,230-234	7.2	0.2	8.8	0.9	6.3	0.4	6.5	0.2	7.7	0.3
Malignant neoplasm of large intestine and rectum . . . . . 153-154,197.5	8.8	0.3	*	*	*9.0	*1.1	7.4	0.3	9.2	0.4
Malignant neoplasm of trachea, bronchus, and lung . . . . . 162,176.4,197.0,197.3	8.0	0.4	*	*	7.7	1.5	7.9	0.6	8.2	0.5
Malignant neoplasm of breast . . . . . 174-175,198.81	2.7	0.2	*	*	3.1	0.4	2.8	0.3	2.6	0.2
Benign neoplasms . . . . . 210-229	3.5	0.1	2.3	0.6	3.1	0.2	3.3	0.1	5.9	0.4
Endocrine, nutritional and metabolic diseases, and immunity disorders . . . . . 240-279	4.8	0.1	3.3	0.5	4.6	0.5	4.6	0.2	5.3	0.1
Diabetes mellitus . . . . . 250	5.2	0.1	2.9	0.3	4.2	0.2	5.6	0.3	5.7	0.2
Volume depletion . . . . . 276.5	4.3	0.2	2.9	0.7	3.5	0.8	4.3	0.3	5.1	0.2
Diseases of the blood and blood-forming organs . . . . . 280-289	4.6	0.2	3.8	0.3	5.0	0.2	4.7	0.3	4.4	0.3
Mental disorders . . . . . 290-319	7.6	0.3	11.6	1.9	6.8	0.3	7.3	0.3	9.9	0.5
Psychoses . . . . . 290-299	8.7	0.3	11.5	2.1	7.8	0.4	8.8	0.4	10.7	0.6
Alcohol dependence syndrome . . . . . 303	5.7	0.5	*	*	5.6	0.6	5.9	0.7	6.6	0.9
Diseases of the nervous system and sense organs . . . . . 320-389	5.2	0.3	3.8	0.2	4.4	0.3	4.8	0.3	6.6	0.7
Diseases of the circulatory system . . . . . 390-459	5.2	0.1	6.9	1.7	4.3	0.2	4.8	0.1	5.4	0.1
Heart disease . . . . . 391-392.0,393-398,402,404,410-416,420-429	4.9	0.1	5.5	0.9	3.8	0.2	4.6	0.2	5.2	0.1
Acute myocardial infarction . . . . . 410	5.9	0.2	*	*	4.5	0.4	5.2	0.3	6.3	0.2
Coronary atherosclerosis . . . . . 414.0	4.1	0.1	*	*	3.0	0.2	3.6	0.1	4.5	0.2
Other ischemic heart disease . . . . . 411-413,414.1-414.9	3.2	0.2	*	*	2.2	0.2	3.4	0.6	3.1	0.2
Cardiac dysrhythmias . . . . . 427	4.0	0.2	2.6	0.4	2.9	0.6	3.6	0.6	4.2	0.1
Congestive heart failure . . . . . 428.0	5.9	0.2	*3.8	*0.4	5.1	0.4	6.4	0.7	5.8	0.2
Cerebrovascular disease . . . . . 430-438	5.9	0.3	*5.6	*1.0	6.4	0.6	6.0	0.2	5.9	0.4
Diseases of the respiratory system . . . . . 460-519	5.6	0.1	3.3	0.1	4.5	0.3	5.7	0.2	6.8	0.2
Acute bronchitis and bronchiolitis . . . . . 466	3.7	0.1	3.2	0.1	3.1	0.3	3.9	0.8	5.1	0.3
Pneumonia . . . . . 480-486	6.0	0.2	3.5	0.1	4.8	0.2	6.2	0.3	6.9	0.2
Chronic bronchitis . . . . . 491	5.8	0.2	*	*	6.2	1.7	5.7	0.8	5.9	0.1
Asthma . . . . . 493	3.3	0.1	2.3	0.1	3.2	0.1	3.8	0.1	5.4	0.6
Diseases of the digestive system . . . . . 520-579	4.8	0.1	3.6	0.2	3.8	0.1	4.8	0.2	5.7	0.2
Appendicitis . . . . . 540-543	3.5	0.1	3.8	0.3	2.9	0.1	4.3	0.3	6.6	0.5
Noninfectious enteritis and colitis . . . . . 555-558	4.3	0.2	2.5	0.2	3.9	0.2	4.3	0.3	5.8	0.5
Diverticula of intestine . . . . . 562	5.4	0.3	*	*	*	*	5.4	0.3	5.1	0.2
Cholelithiasis . . . . . 574	3.7	0.1	*	*	2.8	0.1	3.2	0.2	4.8	0.2
Diseases of the genitourinary system . . . . . 580-629	3.8	0.1	3.7	0.4	2.8	0.1	3.5	0.2	4.9	0.2
Calculus of kidney and ureter . . . . . 592	2.2	0.1	*	*	1.9	0.1	2.1	0.1	3.3	0.2
Complications of pregnancy, childbirth, and the puerperium <sup>3</sup> . . . . . 630-677	2.5	0.1	*	*	2.5	0.1	*	*	...	...
Diseases of the skin and subcutaneous tissue . . . . . 680-709	5.7	0.2	4.8	1.2	4.8	0.3	5.4	0.3	6.8	0.3
Cellulitis and abscess . . . . . 681-682	4.9	0.1	2.9	0.1	4.0	0.2	4.9	0.2	6.1	0.3
Diseases of the musculoskeletal system and connective tissue . . . . . 710-739	4.3	0.1	5.2	0.5	3.1	0.1	4.0	0.3	5.0	0.1
Osteoarthritis and allied disorders . . . . . 715	4.5	0.1	*	*	3.4	0.2	4.1	0.1	4.7	0.1
Intervertebral disc disorders . . . . . 722	2.9	0.1	*	*	2.5	0.1	2.6	0.2	4.6	0.3
Congenital anomalies . . . . . 740-759	4.9	0.3	5.2	0.4	3.6	0.3	5.0	0.9	5.6	1.0
Certain conditions originating in the perinatal period . . . . . 760-779	9.2	1.0	9.2	1.0	*	*	*	*	*	*
Symptoms, signs, and ill-defined conditions . . . . . 780-799	2.7	0.3	2.1	0.1	2.1	0.2	2.1	0.1	4.9	1.2
Injury and poisoning . . . . . 800-999	5.4	0.1	4.4	0.5	4.3	0.2	5.4	0.3	6.4	0.2
Fractures, all sites <sup>4</sup> . . . . . 800-829	5.8	0.2	3.5	0.4	4.8	0.3	5.4	0.4	6.6	0.2
Fracture of neck of femur <sup>4</sup> . . . . . 820	6.8	0.2	*	*	5.7	1.3	6.1	0.4	7.0	0.2
Poisonings . . . . . 960-989	3.0	0.4	1.8	0.2	2.5	0.1	*	*	4.0	0.6
Supplementary classifications . . . . . V01-V82	3.8	0.2	5.7	0.8	2.6	0.0	8.2	0.5	11.6	0.6
Females with deliveries . . . . . V27	2.5	0.0	2.2	0.2	2.5	0.0	*3.0	*0.3	...	...

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

... Category not applicable.

0.0 Quantity more than zero but less than 0.05.

<sup>1</sup>ALOS is average length of stay.<sup>2</sup>SE is standard error of average length of stay.<sup>3</sup>First-listed diagnosis for females with deliveries is coded V27, shown under "Supplementary classifications."<sup>4</sup>Excludes fractures coded as 733.1, pathologic fracture.

**Table 5. Number of discharges from short-stay hospitals by sex and first-listed diagnosis: United States, 1998**[Discharges of inpatients 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)*]

Category of first-listed diagnosis and ICD-9-CM code	Both sexes		Male		Female	
	Number	SE <sup>1</sup>	Number	SE <sup>1</sup>	Number	SE <sup>1</sup>
	Number in thousands					
All conditions . . . . .	31,827	949	12,469	425	19,358	554
Infectious and parasitic diseases . . . . . 001-139	866	44	419	23	447	24
Septicemia . . . . . 038	347	22	154	10	194	14
Neoplasms . . . . . 140-239	1,706	66	644	31	1,062	40
Malignant neoplasms . . . . . 140-208,230-234	1,266	51	575	29	691	28
Malignant neoplasm of large intestine and rectum . . . . . 153-154,197.5	169	10	81	6	88	6
Malignant neoplasm of trachea, bronchus, and lung . . . . . 162,176.4,197.0,197.3	165	10	95	7	69	5
Malignant neoplasm of breast . . . . . 174-175,198.81	124	7	*	*	123	7
Benign neoplasms . . . . . 210-229	389	20	44	4	345	18
Endocrine, nutritional and metabolic diseases, and immunity disorders . . . . . 240-279	1,332	48	551	21	780	31
Diabetes mellitus . . . . . 250	513	22	251	12	261	14
Volume depletion . . . . . 276.5	448	23	170	10	278	17
Diseases of the blood and blood-forming organs . . . . . 280-289	358	19	155	14	203	9
Mental disorders . . . . . 290-319	1,974	217	1,015	116	958	104
Psychoses . . . . . 290-299	1,253	139	592	69	661	71
Alcohol dependence syndrome . . . . . 303	179	27	134	21	45	7
Diseases of the nervous system and sense organs . . . . . 320-389	511	26	224	14	287	16
Diseases of the circulatory system . . . . . 390-459	6,272	241	3,139	132	3,133	117
Heart disease . . . . . 391-392.0,393-398,402,404,410-416,420-429	4,335	180	2,242	101	2,093	86
Acute myocardial infarction . . . . . 410	783	41	463	25	320	18
Coronary atherosclerosis . . . . . 414.0	1,094	73	669	47	426	29
Other ischemic heart disease . . . . . 411-413,414.1-414.9	308	25	135	11	173	16
Cardiac dysrhythmias . . . . . 427	670	27	322	15	348	17
Congestive heart failure . . . . . 428.0	978	42	438	22	540	25
Cerebrovascular disease . . . . . 430-438	1,010	41	457	21	553	24
Diseases of the respiratory system . . . . . 460-519	3,403	129	1,574	60	1,829	75
Acute bronchitis and bronchiolitis . . . . . 466	219	17	109	9	110	10
Pneumonia . . . . . 480-486	1,328	56	638	30	690	31
Chronic bronchitis . . . . . 491	498	27	218	15	280	17
Asthma . . . . . 493	423	33	168	20	255	16
Diseases of the digestive system . . . . . 520-579	3,046	87	1,339	43	1,706	50
Appendicitis . . . . . 540-543	249	13	152	10	97	6
Noninfectious enteritis and colitis . . . . . 555-558	275	15	106	8	169	10
Diverticula of intestine . . . . . 562	230	11	91	6	139	8
Cholelithiasis . . . . . 574	358	16	105	6	253	13
Diseases of the genitourinary system . . . . . 580-629	1,720	78	534	39	1,186	45
Calculus of kidney and ureter . . . . . 592	177	16	103	12	74	6
Complications of pregnancy, childbirth, and the puerperium <sup>2</sup> . . . . . 630-677	512	24	...	...	512	24
Diseases of the skin and subcutaneous tissue . . . . . 680-709	517	32	264	20	252	15
Cellulitis and abscess . . . . . 681-682	364	18	190	11	174	11
Diseases of the musculoskeletal system and connective tissue . . . . . 710-739	1,534	72	658	32	876	45
Osteoarthritis and allied disorders . . . . . 715	435	27	161	12	274	19
Intervertebral disc disorders . . . . . 722	352	22	187	14	165	11
Congenital anomalies . . . . . 740-759	197	32	115	20	82	13
Certain conditions originating in the perinatal period . . . . . 760-779	150	26	87	14	64	12
Symptoms, signs, and ill-defined conditions . . . . . 780-799	297	18	135	10	162	11
Injury and poisoning . . . . . 800-999	2,540	93	1,236	52	1,304	46
Fractures, all sites <sup>3</sup> . . . . . 800-829	966	43	414	23	552	25
Fracture of neck of femur <sup>3</sup> . . . . . 820	329	21	96	10	232	14
Poisonings . . . . . 960-989	198	13	86	9	112	7
Supplementary classifications . . . . . V01-V82	4,892	167	378	28	4,514	161
Females with deliveries . . . . . V27	4,000	159	...	...	4,000	159

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

... Category not applicable.

<sup>1</sup>SE is standard error.<sup>2</sup>First-listed diagnosis for females with deliveries is coded V27, shown under "Supplementary classifications."<sup>3</sup>Excludes fractures coded as 733.1, pathologic fracture.

**Table 6. Rate of discharges from short-stay hospitals by sex and first-listed diagnosis: United States, 1998**

[Discharges of inpatients 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)*]

Category of first-listed diagnosis and ICD-9-CM code	Both sexes		Male		Female	
	Rate	SE <sup>1</sup>	Rate	SE <sup>1</sup>	Rate	SE <sup>1</sup>
	Rate per 10,000 population					
All conditions . . . . .	1,165.3	34.8	934.7	31.9	1,385.3	39.7
Infectious and parasitic diseases . . . . . 001-139	31.7	1.6	31.4	1.7	32.0	1.7
Septicemia . . . . . 038	12.7	0.8	11.5	0.8	13.9	1.0
Neoplasms . . . . . 140-239	62.5	2.4	48.3	2.3	76.0	2.9
Malignant neoplasms . . . . . 140-208,230-234	46.4	1.9	43.1	2.2	49.5	2.0
Malignant neoplasm of large intestine and rectum . . . . . 153-154,197.5	6.2	0.4	6.1	0.5	6.3	0.4
Malignant neoplasm of trachea, bronchus, and lung . . . . . 162,176.4,197.0,197.3	6.0	0.4	7.1	0.5	5.0	0.3
Malignant neoplasm of breast . . . . . 174-175,198.81	4.5	0.3	*	*	8.8	0.5
Benign neoplasms . . . . . 210-229	14.2	0.7	3.3	0.3	24.7	1.3
Endocrine, nutritional and metabolic diseases, and immunity disorders . . . . . 240-279	48.8	1.7	41.3	1.6	55.8	2.2
Diabetes mellitus . . . . . 250	18.8	0.8	18.8	0.9	18.7	1.0
Volume depletion . . . . . 276.5	16.4	0.9	12.8	0.7	19.9	1.2
Diseases of the blood and blood-forming organs . . . . . 280-289	13.1	0.7	11.6	1.1	14.5	0.7
Mental disorders . . . . . 290-319	72.3	8.0	76.1	8.7	68.6	7.4
Psychoses . . . . . 290-299	45.9	5.1	44.4	5.2	47.3	5.1
Alcohol dependence syndrome . . . . . 303	6.5	1.0	10.0	1.6	3.2	0.5
Diseases of the nervous system and sense organs . . . . . 320-389	18.7	0.9	16.8	1.0	20.6	1.1
Diseases of the circulatory system . . . . . 390-459	229.6	8.8	235.3	9.9	224.2	8.4
Heart disease . . . . . 391-392.0,393-398,402,404,410-416,420-429	158.7	6.6	168.1	7.6	149.8	6.1
Acute myocardial infarction . . . . . 410	28.7	1.5	34.7	1.9	22.9	1.3
Coronary atherosclerosis . . . . . 414.0	40.1	2.7	50.1	3.5	30.5	2.0
Other ischemic heart disease . . . . . 411-413,414.1-414.9	11.3	0.9	10.1	0.8	12.4	1.2
Cardiac dysrhythmias . . . . . 427	24.5	1.0	24.1	1.1	24.9	1.2
Congestive heart failure . . . . . 428.0	35.8	1.5	32.8	1.7	38.6	1.8
Cerebrovascular disease . . . . . 430-438	37.0	1.5	34.2	1.6	39.6	1.7
Diseases of the respiratory system . . . . . 460-519	124.6	4.7	118.0	4.5	130.9	5.4
Acute bronchitis and bronchiolitis . . . . . 466	8.0	0.6	8.2	0.7	7.9	0.7
Pneumonia . . . . . 480-486	48.6	2.1	47.8	2.3	49.4	2.2
Chronic bronchitis . . . . . 491	18.2	1.0	16.4	1.1	20.1	1.2
Asthma . . . . . 493	15.5	1.2	12.6	1.5	18.3	1.2
Diseases of the digestive system . . . . . 520-579	111.5	3.2	100.4	3.2	122.1	3.6
Appendicitis . . . . . 540-543	9.1	0.5	11.4	0.7	6.9	0.5
Noninfectious enteritis and colitis . . . . . 555-558	10.1	0.6	8.0	0.6	12.1	0.7
Diverticula of intestine . . . . . 562	8.4	0.4	6.8	0.4	9.9	0.6
Cholelithiasis . . . . . 574	13.1	0.6	7.8	0.5	18.1	0.9
Diseases of the genitourinary system . . . . . 580-629	63.0	2.8	40.0	3.0	84.9	3.2
Calculus of kidney and ureter . . . . . 592	6.5	0.6	7.7	0.9	5.3	0.5
Complications of pregnancy, childbirth, and the puerperium <sup>2</sup> . . . . . 630-677	18.8	0.9	...	...	36.7	1.7
Diseases of the skin and subcutaneous tissue . . . . . 680-709	18.9	1.2	19.8	1.5	18.1	1.1
Cellulitis and abscess . . . . . 681-682	13.3	0.7	14.3	0.9	12.4	0.8
Diseases of the musculoskeletal system and connective tissue . . . . . 710-739	56.2	2.6	49.4	2.4	62.7	3.2
Osteoarthritis and allied disorders . . . . . 715	15.9	1.0	12.1	0.9	19.6	1.4
Intervertebral disc disorders . . . . . 722	12.9	0.8	14.0	1.1	11.8	0.8
Congenital anomalies . . . . . 740-759	7.2	1.2	8.6	1.5	5.9	0.9
Certain conditions originating in the perinatal period . . . . . 760-779	5.5	0.9	6.5	1.1	4.6	0.8
Symptoms, signs, and ill-defined conditions . . . . . 780-799	10.9	0.7	10.1	0.7	11.6	0.8
Injury and poisoning . . . . . 800-999	93.0	3.4	92.7	3.9	93.3	3.3
Fractures, all sites <sup>3</sup> . . . . . 800-829	35.4	1.6	31.0	1.7	39.5	1.8
Fracture of neck of femur <sup>3</sup> . . . . . 820	12.0	0.8	7.2	0.7	16.6	1.0
Poisonings . . . . . 960-989	7.2	0.5	6.4	0.7	8.0	0.5
Supplementary classifications . . . . . V01-V82	179.1	6.1	28.4	2.1	323.0	11.5
Females with deliveries . . . . . V27	146.5	5.8	...	...	286.3	11.4

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

... Category not applicable.

<sup>1</sup>SE is standard error of rate.

<sup>2</sup>First-listed diagnosis for females with deliveries is coded V27, shown under "Supplementary classifications."

<sup>3</sup>Excludes fractures coded as 733.1, pathologic fracture.

**Table 7. Average length of stay for discharges from short-stay hospitals by sex and first-listed diagnosis: United States, 1998**[Discharges of inpatients 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)*]

Category of first-listed diagnosis and ICD-9-CM code	Both sexes		Male		Female	
	ALOS <sup>1</sup>	SE <sup>2</sup>	ALOS <sup>1</sup>	SE <sup>2</sup>	ALOS <sup>1</sup>	SE <sup>2</sup>
All conditions . . . . .	5.1	0.1	5.5	0.1	4.7	0.1
Infectious and parasitic diseases . . . . . 001-139	6.3	0.2	6.7	0.4	5.9	0.2
Septicemia . . . . . 038	7.6	0.2	7.9	0.3	7.4	0.3
Neoplasms. . . . . 140-239	6.4	0.2	7.3	0.2	5.8	0.2
Malignant neoplasms . . . . . 140-208,230-234	7.2	0.2	7.5	0.2	7.0	0.3
Malignant neoplasm of large intestine and rectum . . . . . 153-154,197.5	8.8	0.3	8.5	0.4	9.0	0.4
Malignant neoplasm of trachea, bronchus, and lung . . . . . 162,176.4,197.0,197.3	8.0	0.4	8.2	0.6	7.9	0.4
Malignant neoplasm of breast . . . . . 174-175,198.81	2.7	0.2	*	*	2.7	0.2
Benign neoplasms. . . . . 210-229	3.5	0.1	4.9	0.3	3.4	0.1
Endocrine, nutritional and metabolic diseases, and immunity disorders. . . . . 240-279	4.8	0.1	5.0	0.3	4.6	0.1
Diabetes mellitus . . . . . 250	5.2	0.1	5.3	0.2	5.0	0.1
Volume depletion . . . . . 276.5	4.3	0.2	4.3	0.4	4.3	0.3
Diseases of the blood and blood-forming organs . . . . . 280-289	4.6	0.2	4.6	0.3	4.5	0.2
Mental disorders . . . . . 290-319	7.6	0.3	7.3	0.3	8.0	0.3
Psychoses . . . . . 290-299	8.7	0.3	8.3	0.3	9.0	0.4
Alcohol dependence syndrome . . . . . 303	5.7	0.5	5.8	0.5	5.5	0.6
Diseases of the nervous system and sense organs. . . . . 320-389	5.2	0.3	5.1	0.2	5.3	0.4
Diseases of the circulatory system . . . . . 390-459	5.2	0.1	5.1	0.1	5.3	0.1
Heart disease . . . . . 391-392.0,393-398,402,404,410-416,420-429	4.9	0.1	4.8	0.1	5.1	0.1
Acute myocardial infarction . . . . . 410	5.9	0.2	5.7	0.2	6.1	0.2
Coronary atherosclerosis . . . . . 414.0	4.1	0.1	4.2	0.1	3.9	0.1
Other ischemic heart disease . . . . . 411-413,414.1-414.9	3.2	0.2	2.9	0.2	3.4	0.4
Cardiac dysrhythmias . . . . . 427	4.0	0.2	3.6	0.1	4.4	0.3
Congestive heart failure . . . . . 428.0	5.9	0.2	5.8	0.3	5.9	0.2
Cerebrovascular disease. . . . . 430-438	5.9	0.3	5.4	0.2	6.4	0.6
Diseases of the respiratory system . . . . . 460-519	5.6	0.1	5.6	0.1	5.7	0.1
Acute bronchitis and bronchiolitis . . . . . 466	3.7	0.1	3.3	0.2	4.1	0.2
Pneumonia . . . . . 480-486	6.0	0.2	5.9	0.2	6.2	0.3
Chronic bronchitis . . . . . 491	5.8	0.2	5.7	0.2	5.9	0.4
Asthma . . . . . 493	3.3	0.1	2.7	0.1	3.7	0.2
Diseases of the digestive system . . . . . 520-579	4.8	0.1	4.7	0.1	4.9	0.1
Appendicitis. . . . . 540-543	3.5	0.1	3.5	0.1	3.5	0.1
Noninfectious enteritis and colitis . . . . . 555-558	4.3	0.2	4.1	0.2	4.4	0.3
Diverticula of intestine . . . . . 562	5.4	0.3	5.5	0.6	5.4	0.2
Cholelithiasis . . . . . 574	3.7	0.1	4.3	0.2	3.4	0.1
Diseases of the genitourinary system . . . . . 580-629	3.8	0.1	4.2	0.2	3.6	0.1
Calculus of kidney and ureter. . . . . 592	2.2	0.1	2.1	0.1	2.4	0.2
Complications of pregnancy, childbirth, and the puerperium <sup>3</sup> . . . . . 630-677	2.5	0.1	...	...	2.5	0.1
Diseases of the skin and subcutaneous tissue. . . . . 680-709	5.7	0.2	5.7	0.3	5.7	0.2
Cellulitis and abscess . . . . . 681-682	4.9	0.1	4.6	0.2	5.3	0.2
Diseases of the musculoskeletal system and connective tissue . . . . . 710-739	4.3	0.1	4.1	0.2	4.3	0.1
Osteoarthritis and allied disorders . . . . . 715	4.5	0.1	4.4	0.1	4.5	0.1
Intervertebral disc disorders . . . . . 722	2.9	0.1	2.6	0.2	3.2	0.1
Congenital anomalies . . . . . 740-759	4.9	0.3	4.7	0.4	5.2	0.4
Certain conditions originating in the perinatal period . . . . . 760-779	9.2	1.0	9.2	1.2	9.1	1.1
Symptoms, signs, and ill-defined conditions . . . . . 780-799	2.7	0.3	2.5	0.3	3.0	0.5
Injury and poisoning . . . . . 800-999	5.4	0.1	5.3	0.2	5.4	0.1
Fractures, all sites <sup>4</sup> . . . . . 800-829	5.8	0.2	5.5	0.3	5.9	0.2
Fracture of neck of femur <sup>4</sup> . . . . . 820	6.8	0.2	7.5	0.5	6.6	0.2
Poisonings . . . . . 960-989	3.0	0.4	3.4	0.9	2.8	0.2
Supplementary classifications . . . . . V01-V82	3.8	0.2	9.8	0.6	3.2	0.1
Females with deliveries . . . . . V27	2.5	0.0	...	...	2.5	0.0

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

... Category not applicable.

0.0 Quantity more than zero but less than 0.05.

<sup>1</sup>ALOS is average length of stay.<sup>2</sup>SE is standard error of average length of stay.<sup>3</sup>First-listed diagnosis for females with deliveries is coded V27, shown under "Supplementary classifications."<sup>4</sup>Excludes fractures coded as 733.1, pathologic fracture.

**Table 8. Number of all-listed procedures for discharges from short-stay hospitals by procedure category and age: United States, 1998**

[Discharges of inpatients 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)*]

Procedure category and ICD-9-CM code	All ages		Under 15 years		15-44 years		45-64 years		65 years and over	
	Number	SE <sup>1</sup>	Number	SE <sup>1</sup>	Number	SE <sup>1</sup>	Number	SE <sup>1</sup>	Number	SE <sup>1</sup>
	Number in thousands									
All procedures . . . . .	41,500	1,595	2,002	285	14,495	535	9,764	446	15,240	666
Operations on the nervous system . . . . .01-05	1,062	69	209	38	360	31	227	17	265	18
Spinal tap . . . . .03.31	321	27	141	24	82	6	40	3	58	5
Operations on the endocrine system . . . . .06-07	96	6	*3	*1	31	3	41	4	22	3
Operations on the eye . . . . .08-16	122	18	11	3	28	5	28	6	55	10
Operations on the ear . . . . .18-20	57	10	31	8	10	2	*	*	*5	*1
Operations on the nose, mouth, and pharynx . . . . .21-29	288	22	66	12	101	9	58	6	62	7
Operations on the respiratory system . . . . .30-34	1,004	44	63	15	176	13	279	17	485	23
Bronchoscopy with or without biopsy . . . . .33.21-33.24,33.27	264	15	18	4	38	4	79	6	130	10
Operations on the cardiovascular system . . . . .35-39	5,791	310	171	37	547	29	2,033	126	3,040	168
Removal of coronary artery obstruction and insertion of stent(s) . . . . .36.0	926	78	*	*	60	7	410	38	456	41
Coronary artery bypass graft <sup>2</sup> . . . . .36.1	553	41	*	*	14	2	234	19	304	24
Cardiac catheterization . . . . .37.21-37.23	1,202	89	11	3	91	7	503	41	597	47
Insertion, replacement, removal, and revision of pacemaker leads or device . . . . .37.7-37.8	364	27	*	*	*7	*2	45	7	309	24
Hemodialysis . . . . .39.95	425	30	*	*	70	7	156	15	196	15
Operations on the hemic and lymphatic system . . . . .40-41	334	18	19	4	58	4	109	7	147	12
Operations on the digestive system . . . . .42-54	5,116	153	227	35	1,166	40	1,324	48	2,399	85
Endoscopy of small intestine with or without biopsy . . . . .45.11-45.14,45.16	892	34	16	4	127	8	216	11	533	23
Endoscopy of large intestine with or without biopsy . . . . .45.21-45.25	531	23	9	2	58	5	114	7	349	17
Partial excision of large intestine . . . . .45.7	242	12	*	*	27	3	65	5	146	8
Appendectomy, excluding incidental . . . . .47.0	278	13	64	6	158	9	40	4	16	2
Cholecystectomy . . . . .51.2	439	19	*	*	144	9	127	7	165	10
Lysis of peritoneal adhesions . . . . .54.5	310	14	6	2	136	8	84	5	84	6
Operations on the urinary system . . . . .55-59	946	48	45	9	207	12	296	19	398	23
Cystoscopy with or without biopsy . . . . .57.31-57.33	194	13	6	2	29	3	52	5	107	9
Operations on the male genital organs . . . . .60-64	298	22	25	3	14	3	64	6	195	18
Prostatectomy . . . . .60.2-60.6	203	18	*	*	*	*	48	5	154	16
Operations on the female genital organs . . . . .65-71	2,187	100	8	2	1,267	70	627	30	285	19
Oophorectomy and salpingo-oophorectomy . . . . .65.3-65.6	491	27	*	*	210	18	216	11	64	4
Bilateral destruction or occlusion of fallopian tubes . . . . .66.2-66.3	364	30	*	*	364	30	*	*	*	*
Hysterectomy . . . . .68.3-68.7,68.9	645	36	*	*	328	24	244	13	73	5
Obstetrical procedures . . . . .72-75	6,640	289	12	3	6,622	288	*6	*1	...	...
Episiotomy with or without forceps or vacuum extraction . . . . .72.1,72.21,72.31,72.71,73.6	1,220	67	*	*	1,217	67	*	*	...	...
Artificial rupture of membranes . . . . .73.0	815	64	*	*	813	64	*	*	...	...
Cesarean section . . . . .74.0-74.2,74.4,74.99	900	45	*	*	897	45	*	*	...	...
Repair of current obstetric laceration . . . . .75.5-75.6	1,093	48	*	*	1,091	47	*	*	...	...
Operations on the musculoskeletal system . . . . .76-84	3,257	150	175	24	923	51	915	48	1,244	64
Partial excision of bone . . . . .76.2-76.3,77.6-77.8	260	17	11	2	90	9	97	8	63	5
Reduction of fracture . . . . .76.7,79.0-79.3	610	32	54	6	191	14	118	10	248	14
Open reduction of fracture with internal fixation . . . . .79.3	416	23	17	3	127	9	88	8	184	11
Excision or destruction of intervertebral disc . . . . .80.5	312	22	*	*	136	11	131	11	44	5
Total hip replacement . . . . .81.51	160	12	*	*	9	2	46	4	106	9
Total knee replacement . . . . .81.54	266	17	*	*	*5	*2	81	7	180	12
Operations on the integumentary system . . . . .85-86	1,325	78	*	*	373	22	382	19	443	21
Debridement of wound, infection, or burn . . . . .86.22,86.28	335	19	19	4	92	8	96	8	128	8
Miscellaneous diagnostic and therapeutic procedures . . . . .87-99	12,977	863	810	123	2,611	207	3,362	226	6,195	420
Computerized axial tomography . . . . .87.03,87.41,87.71,88.01,88.38	986	96	43	8	217	28	239	25	487	47
Arteriography and angiocardiology using contrast material . . . . .88.4-88.5	1,961	137	18	4	167	11	794	65	981	70
Diagnostic ultrasound . . . . .88.7	1,123	104	48	12	214	22	277	28	584	58
Respiratory therapy . . . . .93.9,96.7	1,109	89	185	41	151	15	240	21	533	44
Insertion of endotracheal tube . . . . .96.04	399	18	34	7	60	5	92	6	214	11
Injection or infusion of cancer chemotherapeutic substance . . . . .99.25	254	20	41	8	56	7	84	9	74	7

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

... Category not applicable.

<sup>1</sup>SE is standard error.

<sup>2</sup>The number of discharges with a coronary artery bypass graft was 336,000.

**Table 9. Rate of all-listed procedures for discharges from short-stay hospitals by procedure category and age: United States, 1998**[Discharges of inpatients 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)*]

Procedure category and ICD-9-CM code	All ages		Under 15 years		15-44 years		45-64 years		65 years and over	
	Rate	SE <sup>1</sup>	Rate	SE <sup>1</sup>	Rate	SE <sup>1</sup>	Rate	SE <sup>1</sup>	Rate	SE <sup>1</sup>
	Rate per 10,000 population									
All procedures . . . . .	1,519.4	58.4	333.9	47.5	1,188.1	43.9	1,710.5	78.1	4,469.1	195.3
Operations on the nervous system . . . . . 01-05	38.9	2.5	34.9	6.3	29.5	2.6	39.8	2.9	77.6	5.2
Spinal tap . . . . . 03.31	11.8	1.0	23.6	4.0	6.7	0.5	7.0	0.6	17.1	1.6
Operations on the endocrine system . . . . . 06-07	3.5	0.2	*0.4	*0.1	2.5	0.2	7.1	0.6	6.4	1.0
Operations on the eye . . . . . 08-16	4.5	0.7	1.8	0.4	2.3	0.4	4.9	1.0	16.2	3.0
Operations on the ear . . . . . 18-20	2.1	0.4	5.2	1.3	0.8	0.1	*	*	*1.5	*0.4
Operations on the nose, mouth, and pharynx . . . . . 21-29	10.5	0.8	11.1	2.0	8.3	0.8	10.2	1.1	18.3	1.9
Operations on the respiratory system . . . . . 30-34	36.7	1.6	10.6	2.5	14.4	1.0	49.0	2.9	142.1	6.8
Bronchoscopy with or without biopsy . . . . . 33.21-33.24,33.27	9.7	0.6	3.0	0.7	3.1	0.3	13.8	1.1	38.1	2.8
Operations on the cardiovascular system . . . . . 35-39	212.0	11.3	28.5	6.2	44.9	2.4	356.2	22.1	891.5	49.3
Removal of coronary artery obstruction and insertion of stent(s) . . . . . 36.0	33.9	2.9	*	*	4.9	0.5	71.8	6.7	133.8	12.1
Coronary artery bypass graft <sup>2</sup> . . . . . 36.1	20.3	1.5	*	*	1.2	0.2	41.0	3.4	89.3	7.1
Cardiac catheterization . . . . . 37.21-37.23	44.0	3.3	1.9	0.5	7.5	0.5	88.1	7.2	175.0	13.6
Insertion, replacement, removal, and revision of pacemaker leads or device . . . . . 37.7-37.8	13.3	1.0	*	*	*0.6	*0.1	7.9	1.2	90.7	7.1
Hemodialysis . . . . . 39.95	15.5	1.1	*	*	5.8	0.5	27.3	2.6	57.5	4.3
Operations on the hemic and lymphatic system . . . . . 40-41	12.2	0.7	3.2	0.7	4.8	0.3	19.2	1.2	43.1	3.5
Operations on the digestive system . . . . . 42-54	187.3	5.6	37.9	5.8	95.6	3.3	232.0	8.3	703.6	24.8
Endoscopy of small intestine with or without biopsy . . . . . 45.11-45.14,45.16	32.7	1.2	2.7	0.6	10.4	0.7	37.8	1.9	156.4	6.9
Endoscopy of large intestine with or without biopsy . . . . . 45.21-45.25	19.4	0.8	1.5	0.4	4.8	0.4	20.0	1.3	102.5	4.9
Partial excision of large intestine . . . . . 45.7	8.9	0.4	*	*	2.2	0.3	11.5	0.9	42.9	2.4
Appendectomy, excluding incidental . . . . . 47.0	10.2	0.5	10.6	1.1	13.0	0.8	6.9	0.8	4.8	0.6
Cholecystectomy . . . . . 51.2	16.1	0.7	*	*	11.8	0.7	22.2	1.3	48.3	2.9
Lysis of peritoneal adhesions . . . . . 54.5	11.3	0.5	1.0	0.3	11.1	0.7	14.8	0.9	24.6	1.9
Operations on the urinary system . . . . . 55-59	34.6	1.7	7.5	1.5	17.0	1.0	51.9	3.4	116.6	6.8
Cystoscopy with or without biopsy . . . . . 57.31-57.33	7.1	0.5	1.1	0.3	2.4	0.2	9.0	0.9	31.3	2.6
Operations on the male genital organs . . . . . 60-64	10.9	0.8	4.1	0.5	1.2	0.3	11.3	1.1	57.1	5.2
Prostatectomy . . . . . 60.2-60.6	7.4	0.7	*	*	*	*	8.4	0.8	45.2	4.6
Operations on the female genital organs . . . . . 65-71	80.1	3.7	1.4	0.4	103.8	5.7	109.9	5.2	83.5	5.6
Oophorectomy and salpingo-oophorectomy . . . . . 65.3-65.6	18.0	1.0	*	*	17.2	1.5	37.9	2.0	18.8	1.3
Bilateral destruction or occlusion of fallopian tubes . . . . . 66.2-66.3	13.3	1.1	*	*	29.8	2.5	*	*	*	*
Hysterectomy . . . . . 68.3-68.7,68.9	23.6	1.3	*	*	26.9	2.0	42.8	2.3	21.3	1.5
Obstetrical procedures . . . . . 72-75	243.1	10.6	2.0	0.4	542.8	23.6	*1.1	*0.3	...	...
Episiotomy with or without forceps or vacuum extraction . . . . . 72.1,72.21,72.31,72.71,73.6	44.7	2.5	*	*	99.8	5.5	*	*	...	...
Artificial rupture of membranes . . . . . 73.0	29.8	2.3	*	*	66.6	5.2	*	*	...	...
Cesarean section . . . . . 74.0-74.2,74.4,74.99	32.9	1.7	*	*	73.6	3.7	*	*	...	...
Repair of current obstetric laceration . . . . . 75.5-75.6	40.0	1.7	*	*	89.4	3.9	*	*	...	...
Operations on the musculoskeletal system . . . . . 76-84	119.3	5.5	29.2	4.0	75.7	4.2	160.3	8.4	364.8	18.9
Partial excision of bone . . . . . 76.2-76.3,77.6-77.8	9.5	0.6	1.8	0.3	7.4	0.7	16.9	1.4	18.5	1.5
Reduction of fracture . . . . . 76.7,79.0-79.3	22.3	1.2	9.0	0.9	15.6	1.1	20.6	1.7	72.6	4.1
Open reduction of fracture with internal fixation . . . . . 79.3	15.2	0.8	2.8	0.5	10.4	0.7	15.5	1.3	54.1	3.2
Excision or destruction of intervertebral disc . . . . . 80.5	11.4	0.8	*	*	11.1	0.9	23.0	1.9	13.0	1.4
Total hip replacement . . . . . 81.51	5.9	0.4	*	*	0.7	0.1	8.0	0.7	30.9	2.7
Total knee replacement . . . . . 81.54	9.7	0.6	*	*	*0.4	*0.1	14.2	1.3	52.7	3.4
Operations on the integumentary system . . . . . 85-86	48.5	2.9	*	*	30.6	1.8	66.9	3.3	129.9	6.1
Debridement of wound, infection, or burn . . . . . 86.22,86.28	12.3	0.7	3.1	0.6	7.6	0.6	16.8	1.4	37.5	2.3
Miscellaneous diagnostic and therapeutic procedures . . . . . 87-99	475.1	31.6	135.1	20.6	214.0	16.9	588.9	39.7	1,816.7	123.1
Computerized axial tomography . . . . . 87.03,87.41,87.71,88.01,88.38	36.1	3.5	7.2	1.4	17.8	2.3	41.9	4.3	142.8	13.8
Arteriography and angiocardiology using contrast material . . . . . 88.4-88.5	71.8	5.0	3.0	0.7	13.7	0.9	139.1	11.4	287.8	20.4
Diagnostic ultrasound . . . . . 88.7	41.1	3.8	7.9	2.1	17.6	1.8	48.5	4.9	171.3	17.2
Respiratory therapy . . . . . 93.9,96.7	40.6	3.3	30.8	6.8	12.4	1.2	42.1	3.7	156.4	12.8
Insertion of endotracheal tube . . . . . 96.04	14.6	0.6	5.6	1.2	4.9	0.4	16.1	1.0	62.8	3.2
Injection or infusion of cancer chemotherapeutic substance . . . . . 99.25	9.3	0.7	6.8	1.4	4.6	0.6	14.7	1.6	21.7	2.0

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

... Category not applicable.

<sup>1</sup>SE is standard error of rate.<sup>2</sup>The rate per 10,000 population of discharges with a coronary artery bypass graft was 12.3.

**Table 10. Number of all-listed procedures for discharges from short-stay hospitals by procedure category and sex: United States, 1998**

[Discharges of inpatients 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)*]

Procedure category and ICD-9-CM code	Both sexes		Male		Female	
	Number	SE <sup>1</sup>	Number	SE <sup>1</sup>	Number	SE <sup>1</sup>
	Number in thousands					
All procedures . . . . .	41,500	1,595	16,188	748	25,312	905
Operations on the nervous system . . . . . 01-05	1,062	69	485	33	577	43
Spinal tap . . . . . 03.31	321	27	157	14	164	15
Operations on the endocrine system . . . . . 06-07	96	6	32	4	64	5
Operations on the eye . . . . . 08-16	122	18	66	10	56	10
Operations on the ear . . . . . 18-20	57	10	34	6	23	5
Operations on the nose, mouth, and pharynx . . . . . 21-29	288	22	161	13	126	11
Operations on the respiratory system . . . . . 30-34	1,004	44	544	29	460	21
Bronchoscopy with or without biopsy . . . . . 33.21-33.24,33.27	264	15	145	9	119	8
Operations on the cardiovascular system . . . . . 35-39	5,791	310	3,364	191	2,427	127
Removal of coronary artery obstruction and insertion of stent(s) . . . . . 36.0	926	78	594	48	332	32
Coronary artery bypass graft <sup>2</sup> . . . . . 36.1	553	41	396	30	158	14
Cardiac catheterization . . . . . 37.21-37.23	1,202	89	716	51	486	41
Insertion, replacement, removal, and revision of pacemaker leads or device . . . . . 37.7-37.8	364	27	178	16	185	15
Hemodialysis . . . . . 39.95	425	30	219	18	205	16
Operations on the hemic and lymphatic system . . . . . 40-41	334	18	166	11	167	9
Operations on the digestive system . . . . . 42-54	5,116	153	2,178	75	2,938	90
Endoscopy of small intestine with or without biopsy . . . . . 45.11-45.14,45.16	892	34	414	19	478	20
Endoscopy of large intestine with or without biopsy . . . . . 45.21-45.25	531	23	215	11	316	17
Partial excision of large intestine . . . . . 45.7	242	12	112	7	130	8
Appendectomy, excluding incidental . . . . . 47.0	278	13	156	9	122	7
Cholecystectomy . . . . . 51.2	439	19	128	7	311	16
Lysis of peritoneal adhesions . . . . . 54.5	310	14	59	5	250	13
Operations on the urinary system . . . . . 55-59	946	48	470	31	476	24
Cystoscopy with or without biopsy . . . . . 57.31-57.33	194	13	121	10	73	7
Operations on the male genital organs . . . . . 60-64	298	22	298	22	...	...
Prostatectomy . . . . . 60.2-60.6	203	18	203	18	...	...
Operations on the female genital organs . . . . . 65-71	2,187	100	...	...	2,187	100
Oophorectomy and salpingo-oophorectomy . . . . . 65.3-65.6	491	27	...	...	491	27
Bilateral destruction or occlusion of fallopian tubes . . . . . 66.2-66.3	364	30	...	...	364	30
Hysterectomy . . . . . 68.3-68.7,68.9	645	36	...	...	645	36
Obstetrical procedures . . . . . 72-75	6,640	289	...	...	6,640	289
Episiotomy with or without forceps or vacuum extraction . . . . . 72.1,72.21,72.31,72.71,73.6	1,220	67	...	...	1,220	67
Artificial rupture of membranes . . . . . 73.0	815	64	...	...	815	64
Cesarean section . . . . . 74.0-74.2,74.4,74.99	900	45	...	...	900	45
Repair of current obstetric laceration . . . . . 75.5-75.6	1,093	48	...	...	1,093	48
Operations on the musculoskeletal system . . . . . 76-84	3,257	150	1,552	73	1,705	82
Partial excision of bone . . . . . 76.2-76.3,77.6-77.8	260	17	130	9	130	11
Reduction of fracture . . . . . 76.7,79.0-79.3	610	32	282	18	328	17
Open reduction of fracture with internal fixation . . . . . 79.3	416	23	177	12	239	14
Excision or destruction of intervertebral disc . . . . . 80.5	312	22	163	13	149	11
Total hip replacement . . . . . 81.51	160	12	68	6	92	7
Total knee replacement . . . . . 81.54	266	17	99	8	167	12
Operations on the integumentary system . . . . . 85-86	1,325	78	577	42	748	41
Debridement of wound, infection, or burn . . . . . 86.22,86.28	335	19	195	12	140	9
Miscellaneous diagnostic and therapeutic procedures . . . . . 87-99	12,977	863	6,261	422	6,716	449
Computerized axial tomography . . . . . 87.03,87.41,87.71,88.01,88.38	986	96	462	47	524	51
Arteriography and angiocardiology using contrast material . . . . . 88.4-88.5	1,961	137	1,115	79	845	62
Diagnostic ultrasound . . . . . 88.7	1,123	104	488	48	635	59
Respiratory therapy . . . . . 93.9,96.7	1,109	89	564	46	545	47
Insertion of endotracheal tube . . . . . 96.04	399	18	200	11	199	9
Injection or infusion of cancer chemotherapeutic substance . . . . . 99.25	254	20	121	11	134	11

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

... Category not applicable.

<sup>1</sup>SE is standard error.

<sup>2</sup>The number of discharges with a coronary artery bypass graft was 336,000.

**Table 11. Rate of all-listed procedures for discharges from short-stay hospitals by procedure category and sex: United States, 1998**[Discharges of inpatients 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)*]

Procedure category and ICD-9-CM code	Both sexes		Male		Female	
	Rate	SE <sup>1</sup>	Rate	SE <sup>1</sup>	Rate	SE <sup>1</sup>
	Rate per 10,000 population					
All procedures . . . . .	1,519.4	58.4	1,213.6	56.1	1,811.5	64.7
Operations on the nervous system . . . . . 01-05	38.9	2.5	36.4	2.4	41.3	3.0
Spinal tap . . . . . 03.31	11.8	1.0	11.8	1.1	11.8	1.1
Operations on the endocrine system . . . . . 06-07	3.5	0.2	2.4	0.3	4.6	0.3
Operations on the eye . . . . . 08-16	4.5	0.7	5.0	0.8	4.0	0.7
Operations on the ear . . . . . 18-20	2.1	0.4	2.6	0.5	1.7	0.4
Operations on the nose, mouth, and pharynx . . . . . 21-29	10.5	0.8	12.1	1.0	9.0	0.8
Operations on the respiratory system . . . . . 30-34	36.7	1.6	40.8	2.2	32.9	1.5
Bronchoscopy with or without biopsy . . . . . 33.21-33.24,33.27	9.7	0.6	10.9	0.7	8.5	0.6
Operations on the cardiovascular system . . . . . 35-39	212.0	11.3	252.2	14.3	173.7	9.1
Removal of coronary artery obstruction and insertion of stent(s) . . . . . 36.0	33.9	2.9	44.5	3.6	23.7	2.3
Coronary artery bypass graft <sup>2</sup> . . . . . 36.1	20.3	1.5	29.7	2.3	11.3	1.0
Cardiac catheterization . . . . . 37.21-37.23	44.0	3.3	53.7	3.8	34.8	2.9
Insertion, replacement, removal, and revision of pacemaker leads or device . . . . . 37.7-37.8	13.3	1.0	13.4	1.2	13.3	1.1
Hemodialysis . . . . . 39.95	15.5	1.1	16.4	1.4	14.7	1.1
Operations on the hemic and lymphatic system . . . . . 40-41	12.2	0.7	12.5	0.9	12.0	0.7
Operations on the digestive system . . . . . 42-54	187.3	5.6	163.3	5.6	210.3	6.4
Endoscopy of small intestine with or without biopsy . . . . . 45.11-45.14,45.16	32.7	1.2	31.0	1.4	34.2	1.4
Endoscopy of large intestine with or without biopsy . . . . . 45.21-45.25	19.4	0.8	16.1	0.8	22.6	1.2
Partial excision of large intestine . . . . . 45.7	8.9	0.4	8.4	0.5	9.3	0.6
Appendectomy, excluding incidental . . . . . 47.0	10.2	0.5	11.7	0.7	8.7	0.5
Cholecystectomy . . . . . 51.2	16.1	0.7	9.6	0.5	22.3	1.2
Lysis of peritoneal adhesions . . . . . 54.5	11.3	0.5	4.4	0.3	17.9	0.9
Operations on the urinary system . . . . . 55-59	34.6	1.7	35.2	2.3	34.1	1.7
Cystoscopy with or without biopsy . . . . . 57.31-57.33	7.1	0.5	9.1	0.8	5.2	0.5
Operations on the male genital organs . . . . . 60-64	10.9	0.8	22.3	1.7	...	...
Prostatectomy . . . . . 60.2-60.6	7.4	0.7	15.2	1.4	...	...
Operations on the female genital organs . . . . . 65-71	80.1	3.7	...	...	156.5	7.2
Oophorectomy and salpingo-oophorectomy . . . . . 65.3-65.6	18.0	1.0	...	...	35.2	2.0
Bilateral destruction or occlusion of fallopian tubes . . . . . 66.2-66.3	13.3	1.1	...	...	26.1	2.2
Hysterectomy . . . . . 68.3-68.7,68.9	23.6	1.3	...	...	46.2	2.5
Obstetrical procedures . . . . . 72-75	243.1	10.6	...	...	475.2	20.7
Episiotomy with or without forceps or vacuum extraction . . . . . 72.1,72.21,72.31,72.71,73.6	44.7	2.5	...	...	87.3	4.8
Artificial rupture of membranes . . . . . 73.0	29.8	2.3	...	...	58.3	4.6
Cesarean section . . . . . 74.0-74.2,74.4,74.99	32.9	1.7	...	...	64.4	3.3
Repair of current obstetric laceration . . . . . 75.5-75.6	40.0	1.7	...	...	78.2	3.4
Operations on the musculoskeletal system . . . . . 76-84	119.3	5.5	116.3	5.5	122.1	5.9
Partial excision of bone . . . . . 76.2-76.3,77.6-77.8	9.5	0.6	9.8	0.7	9.3	0.8
Reduction of fracture . . . . . 76.7,79.0-79.3	22.3	1.2	21.2	1.3	23.5	1.2
Open reduction of fracture with internal fixation . . . . . 79.3	15.2	0.8	13.3	0.9	17.1	1.0
Excision or destruction of intervertebral disc . . . . . 80.5	11.4	0.8	12.2	1.0	10.7	0.8
Total hip replacement . . . . . 81.51	5.9	0.4	5.1	0.5	6.6	0.5
Total knee replacement . . . . . 81.54	9.7	0.6	7.4	0.6	12.0	0.9
Operations on the integumentary system . . . . . 85-86	48.5	2.9	43.3	3.1	53.5	2.9
Debridement of wound, infection, or burn . . . . . 86.22,86.28	12.3	0.7	14.6	0.9	10.0	0.6
Miscellaneous diagnostic and therapeutic procedures . . . . . 87-99	475.1	31.6	469.4	31.6	480.7	32.1
Computerized axial tomography . . . . . 87.03,87.41,87.71,88.01,88.38	36.1	3.5	34.7	3.5	37.5	3.7
Arteriography and angiocardiology using contrast material . . . . . 88.4-88.5	71.8	5.0	83.6	5.9	60.5	4.4
Diagnostic ultrasound . . . . . 88.7	41.1	3.8	36.6	3.6	45.4	4.2
Respiratory therapy . . . . . 93.9,96.7	40.6	3.3	42.3	3.4	39.0	3.3
Insertion of endotracheal tube . . . . . 96.04	14.6	0.6	15.0	0.8	14.2	0.7
Injection or infusion of cancer chemotherapeutic substance . . . . . 99.25	9.3	0.7	9.0	0.8	9.6	0.8

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

... Category not applicable.

<sup>1</sup>SE is standard error of rate.<sup>2</sup>The rate per 10,000 population of discharges with a coronary artery bypass graft was 12.3.



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**Suggested citation**

Hall MJ and Popovic JR. 1998 Summary: National Hospital Discharge Survey. Advance data from vital and health statistics; no 316. Hyattsville, Maryland: National Center for Health Statistics. 2000.

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DHHS Publication No. (PHS) 2000-1250  
0-0502 (6/00)