

# Vital and Health Statistics

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

## National Hospital Discharge Survey: Annual Summary, 1993

August 1995





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# Vital and Health Statistics

### National Hospital Discharge Survey: Annual Summary, 1993

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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 the 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 and 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
- \* Figure does not meet standard of reliability or precision (more than 30-percent relative standard error in numerator of percent or rate)
- Figure does not meet standard of reliability and quantity zero

## National Hospital Discharge Survey

by Edmund J. Graves,
Division of Health Care Statistics

#### Introduction

This report provides national estimates of the use of non-Federal short-stay hospitals during 1993. The estimates 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 obtained from a national sample of non-Federal general and short-stay specialty hospitals in the United States. Approximately 235,000 medical records from 466 participating hospitals were included in the 1993 survey.

The original universe for the survey consisted of 6,965 short-stay hospitals 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 was based on a three-stage stratified sample that came from hospitals in the April 1987 SMG Hospital Market Database (2). Only hospitals accepting inpatients by August 1987 were included. In 1991, the sampling frame was updated to include hospitals from the 1991 SMG Hospital Market Database (3). 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

This report was prepared in the Division of Health Care Statistics. Jean Kozak of the Hospital Care Statistics Branch provided assistance in developing the style and content of this report, and Elaine Wood of the Hospital Care Statistics Branch verified the data. Maria Owings, also of the Hospital Care Statistics Branch, and George Wolfe of the Technical Services Branch, produced estimated parameters for relative standard error equations. In addition, George Wolfe assisted with the preparation of tables. Charles Adams and Malcolm Graham of the Technical Services Branch did the computer programing for the report. This report was edited by Klaudia Cox and typeset by Annette F. Facemire of the Publications Branch, Division of Data Services.

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 are in appendix I.

Measurements of hospital use are presented in this report by age, sex, race, and expected source of payment for discharges, and by geographic region of the hospitals (tables 1–4). Statistics on women with deliveries (table 5), conditions diagnosed (tables 6–21), and procedures performed (tables 22–29) are also shown by patient and hospital characteristics. Text tables show information on special topics including trends, the elderly, discharges with human immunodeficiency virus (HIV) diagnoses, hospital deaths, and newborn infants. 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 were coded according to the *International Classification of Diseases*, 9th Revision, Clinical Modification, or ICD–9–CM (4). A maximum of seven diagnoses and four procedures were 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 use that are available from other sources. Definitions of the terms used in this report are presented in appendix II.

Information on short-stay hospital use 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 1993, there were an estimated 30.8 million discharges of inpatients from non-Federal short-stay hospitals, excluding newborn infants. These patients used an estimated 184.6 million days of care.
- Patients 65 years of age and over comprise approximately 13 percent of the population, but they accounted for 36 percent of all discharges and used 48 percent of all days of care.
- Deliveries and heart disease together accounted for almost 8 million discharges and made up 26 percent of all first-listed diagnoses.
- Heart disease was the first-listed diagnosis for 23 percent of discharges for patients 65 years of age and over.
- At least one procedure was reported for 65 percent of discharges.
- Four obstetrical procedures (episiotomy, cesarean section, repair of current obstetric laceration, and artificial rupture

- of membranes) accounted for 18 percent of all surgical procedures.
- Four nonsurgical procedures were performed more than 1 million times: arteriography and angiocardiography using contrast material (1.7 million), diagnostic ultrasound (1.4 million), computerized axial tomography (1.2 million), and fetal EKG and fetal monitoring (1.1 million).
- The number of discharges with HIV diagnoses increased from 10,000 in 1984 to 225,000 in 1993.
- In 1993, deaths accounted for 3 percent of discharges.
- Heart disease and malignant neoplasm accounted for 36 percent of deaths in short-stay hospitals.
- In 1993, 69 percent of newborn infants were hospitalized for fewer than 3 days, compared with only 31 percent in 1980.

#### **Trends**

In 1993, there were an estimated 30,825,000 discharges of inpatients from short-stay hospitals (table A). These patients used a total of 184,601,000 days of care and had an average length of stay of 6.0 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. Since 1988 the number of discharges and days of care have

not changed significantly. The average length of stay has gradually declined and was 1.8 days (23 percent) shorter in 1993 than in 1965.

Hospital use measures are shown by age for 1991, 1992, and 1993 in table B. During these three years, 35–36 percent of discharges were for patients 65 years of age and over, who used 47–48 percent of total days of care.

Table A. Selected measures of short-stay hospital use: United States, selected years 1965-93

Measure of hospital use	1965	1970	1975	1980	1985	1990	1993
Number of discharges in thousands	28,792	29,127	34,043	37,832	35,056	30,788	30,825
Rate of discharges per 1,000 population	150.3	144.3	159.2	167.7	147.9	123.5	120.2
Number of days of care in thousands	225,011	226,445	262,389	274,508	226,217	197,422	184,601
Rate of days of care per 1,000 population	1,174.3	1,121.6	1,227.3	1,217.0	954.4	791.7	719.9
Average length of stay in days	7.8	7.8	7.7	7.3	6.5	6.4	6.0

Table B. Number and rate of discharges from short-stay hospitals and of days of care, and average length of stay, by age: United States, 1991–93

Age	1991	1992	1993			
		Number of discharges in thousands				
All ages	31,098	30,951	30,825			
Jnder 15 years	2,498	2,531	2,141			
15–44 years	11,620	11,227	11,200			
15–64 years	6,173	6,329	6,283			
5 years and over	10,806	10,864	11,201			
65–74 years	4,830	4,883	4,890			
75 years and over	5,976	5,981	6,311			
.,	,	•	,			
		Rate of discharges per 1,000 population	n			
ıll ages	124.1	122.1	120.2			
Jnder 15 years	45.3	45.2	37.7			
5–44 years	99.3	96.0	95.4			
5–64 years	132.2	131.0	126.8			
65 years and over	340.3	336.5	341.6			
65–74 years	264.2	264.5	262.2			
75 years and over	443.5	432.6	446.4			
		Number of days of care in thousands				
All ages	199,099	190,386	184,601			
Inder 15 years	12,037	12,289	11,093			
5–44 years	54,020	48,660	46,854			
5–64 years	40,100	39,952	38,899			
5 years and over	92,942	89,484	87,755			
65–74 years	38,949	37,675	35,945			
75 years and over	53,992	51,809	51,810			
	F	ate of days of care per 1,000 population	on			
All ages	794.6	751.0	719.9			
Inder 15 years	218.3	219.6	195.5			
5–44 years	461.8	416.1	399.3			
5–64 years	858.5	827.1	785.0			
5 years and over	2,927.0	2,771.7	2,676.2			
65–74 years	2,130.7	2,771.7	1,927.1			
75 years and over	4,007.2	3,747.8	3,664.6			
	Average length of stay in days					
All ages	6.4	6.2	6.0			
Inder 15 years	4.8	4.9	5.2			
5–44 years	4.6	4.9	4.2			
-	4.0 6.5	6.3	4.2 6.2			
5-64 years	6.5 8.6	8.2	7.8			
5 years and over	8.1	8.2 7.7	7.6 7.4			
•						
75 years and over	9.0	8.7	8.2			

#### **Diagnoses**

Hospital use measures for selected first-listed diagnoses are shown in table C. The categories shown accounted for more than half of the discharges and days of care in short-stay hospitals in 1993. An estimated 4,015,000 discharges (13 percent) were females hospitalized for deliveries. Because of their short average length of stay (2.4 days), these discharges accounted for only 5 percent of total days of care.

Heart disease was the first-listed diagnosis for 3,951,000 discharges (13 percent). These discharges had an average length of stay of 6.3 days and made up 13 percent of total days of care.

Malignant neoplasms were the first-listed diagnosis for 1,482,000 discharges (5 percent). The average length of stay for these discharges was 8.1 days; they used 6 percent of the total days of care.

Pneumonia, psychoses, fractures, and cerebrovascular disease each accounted for more than 800,000 discharges. Discharges with each of these four diagnoses had more than 7 million days of care. Discharges with a first-listed diagnosis of psychosis had a particularly long average length of stay (12.0 days), and they used 7 percent of total days of care.

Table C. Number and rate of discharges from short-stay hospitals and of days of care, and average length of stay, by selected first-listed diagnoses: United States, 1993

[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)]

	Disch	arges	Days	of care		
First-listed diagnosis and ICD-9-CM code	Number in thousands	Rate per 10,000 population	Number in thousands	Rate per 10,000 population	Average length of stay in days	
All conditions <sup>1</sup>	30,825	1,202.1	184,601	7,198.7	6.0	
Females with deliveries	4,015	156.6	9,766	380.8	2.4	
Heart disease391–392.0,393–398,402,404,410–416,420–429	3,951	154.1	24,861	969.5	6.3	
Acute myocardial infarction	745	29.0	5,479	213.7	7.4	
Coronary atherosclerosis	492	19.2	2,962	115.5	6.0	
Other ischemic heart disease	842	32.8	3,819	148.9	4.5	
Cardiac dysrhythmias	549	21.4	2,658	103.7	4.8	
Congestive heart failure	875	34.1	6,567	256.1	7.5	
Malignant neoplasms	1,482	57.8	11,978	467.1	8.1	
Malignant neoplasm of large intestine and rectum153–154,197.5  Malignant neoplasm of trachea, bronchus and	157	6.1	1,726	67.3	11.0	
lung	194	7.6	1,685	65.7	8.7	
Malignant neoplasm of breast	168	6.6	624	24.3	3.7	
neumonia	1,184	46.2	9,234	360.1	7.8	
Psychosis	1,054	41.1	12,630	492.5	12.0	
ractures	1,017	39.7	7,594	296.1	7.5	
Fracture of neck of femur	307	12.0	3,156	123.1	10.3	
erebrovascular disease	841	32.8	7,080	276.1	8.4	
rthropathies and related disorders	541	21.1	3,694	144.1	6.8	
Cholelithiasis	476	18.6	2,011	78.4	4.2	
.sthma	468	18.3	2,079	81.1	4.4	
Diabetes mellitus	464	18.1	3,483	135.8	7.5	
cute respiratory infections	400	15.6	1,604	62.5	4.0	
ntervertebral disc disorders	391	15.3	1,558	60.7	4.0	
enign neoplasms and neoplasms of uncertain behavior and						
unspecified nature	373	14.5	1,660	64.7	4.5	
Ioninfectious enteritis and colitis	350	13.7	1,696	66.1	4.8	
/olume depletion	347	13.5	2,057	80.2	5.9	
Cellulitis and abscess	304	11.8	1,997	77.9	6.6	

<sup>&</sup>lt;sup>1</sup>Includes data for diagnostic conditions not shown in table.

Table D. Number and rate of discharges from short-stay hospitals, and average length of stay, for patients 65 years of age and over, by age and selected first-listed diagnoses: United States, 1993

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

First-listed diagnosis and ICD-9-CM code	65 years and over	65–74 years	75 years and over
	Num	nber of discharges in thousa	inds
All conditions <sup>1</sup>	11,201	4,890	6,311
Heart disease	2,529	1,142	1,387
Acute myocardial infarction	446	208	238
•	258	174	84
Coronary atherosclerosis			
Other ischemic heart disease	499	261	238
Cardiac dysrhythmias	380	169	210
Congestive heart failure	681	218	463
Malignant neoplasms	811	434	377
Malignant neoplasm of large intestine and rectum	103	43	60
Malignant neoplasm of trachea, bronchus, and lung162,197.0,197.3	111	68	44
Pneumonia	642	207	435
Cerebrovascular disease	629	220	409
ractures	494	126	368
Fracture of neck of femur	276	50	225
Arthropathies and related disorders	305	170	135
Psychosis	222	91	132
Jrinary tract infection, site not specified	204	45	159
/olume depletion	189	54	134
Diabetes mellitus	182	94	88
	Rate of	f discharges per 10,000 pop	ulation
All conditions <sup>1</sup>	3,415.7	2,621.7	4,463.5
Heart disease	771.3	612.3	981.2
Acute myocardial infarction	136.0	111.7	168.0
Coronary atherosclerosis	78.7	93.3	59.5
Other ischemic heart disease	152.0	140.0	168.0
Cardiac dysrhythmias	115.8	90.8	148.9
Congestive heart failure	207.6	116.7	327.6
#20.0 Alignant neoplasms	247.4	232.5	267.0
Malignant neoplasm of large intestine and rectum	31.5	23.1	42.5
Malignant neoplasm of trachea, bronchus, and lung162,197.0,197.3	33.9	36.2	30.9
Pneumonia	195.9	111.2	307.6
Cerebrovascular disease	192.0	118.0	289.5
Fractures	150.7	67.8	260.0
Fracture of neck of femur	84.1	27.0	159.5
Arthropathies and related disorders	93.0	91.2	95.4
Psychosis	67.8	48.5	93.3
Jrinary tract infection, site not specified	62.4	24.2	112.7
folume depletion	57.7	29.0	95.1
Diabetes mellitus	55.4	50.4	62.0
	A	verage length of stay in day	s
All conditions <sup>1</sup>	7.8	7.4	8.2
Heart disease	6.8	6.5	7.1
Acute myocardial infarction	8.0	7.7	8.3
Coronary atherosclerosis	6.9	6.6	7.5
Other ischemic heart disease	4.9	4.7	5.2
Cardiac dysrhythmias	5.2	4.9	5.4
Congestive heart failure	7.8	7.8	7.8
Malignant neoplasms	8.6	8.2	9.1
Malignant neoplasm of large intestine and rectum	11.7	11.6	11.7
Malignant neoplasm of trachea, bronchus, and lung	8.9	8.1	10.2
Pheumonia	9.2	8.6	9.4
Cerebrovascular disease	9.2 8.4		
		8.1	8.6
Fractures	9.4	8.3	9.8
Fracture of neck of femur	10.3	10.2	10.4
Arthropathies and related disorders	8.5	7.9	9.3
Psychosis	13.7	14.7	13.0
•			
Jrinary tract infection, site not specified	8.1	6.8	8.4
·	8.1 7.0	6.8 6.2	8.4 7.4

 $<sup>^{1}\</sup>mbox{Includes}$  diagnostic conditions not shown in table.

As shown in table D, heart disease was the first-listed diagnosis for an estimated 2,529,000 discharges 65 years of age and over, which was 23 percent of the discharges of this age group. Malignant neoplasms accounted for 7 percent of

discharges 65 years of age and over. The first-listed diagnosis for 6 percent of discharges 65 years of age and over was pneumonia, and for another 6 percent it was cerebrovascular disease.

#### **Procedures**

In 1993, 19,968,000 discharges (65 percent) had one or more surgical, diagnostic, or therapeutic procedures (table E). At least one surgical procedure was reported for 14,225,000 discharges (46 percent). See appendix II for the definition of surgical and nonsurgical procedures.

The proportion of discharges with surgical procedures ranged from 25 percent for children under 15 years of age to 57 percent for patients 15–44 years of age, many of whom have procedures related to childbirth. At least one surgical procedure was performed on 49 percent of females and 41 percent of males. The proportion of white discharges with a surgical procedure was 47 percent, compared with 40 percent of black discharges.

An estimated total of 22,767,000 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 1993, a total of 485,000 CABG procedures were performed for 309,000 discharges. Thus, the number of CABG procedures should not be equated with the number of patients having the procedure.

Four obstetrical procedures accounted for 18 percent of all surgical procedures performed: episiotomy, cesarean sec-

Table E. Number of discharges from short-stay hospitals with and without procedures and percent with procedures, by selected characteristics: United States, 1993

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

Characteristic  Total				Discharges wit	th procedures	
Characteristic	All discharges	Discharges without procedures	Total	With surgical procedures	Total	With surgical procedures
		Number in the	nousands			Percent
Total	30,825	10,857	19,968	14,225	64.8	46.1
Age						
Under 15 years	2,141	1,140	1,001	525	46.7	24.5
15–44 years	11,200	2,971	8,229	6,436	73.5	57.5
45–64 years	6,283	2,129	4,154	2,939	66.1	46.8
65 years and over	11,201	4,617	6,584	4,325	58.8	38.6
Sex						
Male	12,262	4,737	7,526	5,064	61.4	41.3
Female	18,563	6,120	12,442	9,161	67.0	49.4
Race						
White	20,101	7,077	13,024	9,455	64.8	47.0
Black	3,660	1,325	2,335	1,449	63.8	39.6
All other	1,253	281	972	673	77.6	53.7
Not stated	5,812	2,174	3,638	2,649	62.6	45.6
Region						
Northeast	6,965	2,133	4,832	3,226	69.4	46.3
Midwest	7,097	2,871	4,226	3,065	59.5	43.2
South	11,580	4,501	7,080	5,253	61.1	45.4
West	5,183	1,352	3,831	2,682	73.9	51.7

NOTE: See appendix II for definition of surgical procedures.

Table F. Number and rate of all-listed surgical procedures for discharges from short-stay hospitals, by selected procedure categories: United States, 1993

[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	Number in thousands	Rate per 100,000 population
Surgical procedures <sup>1</sup>	22,767	8,878.1
Episiotomy with or without forceps or vacuum extraction	1,562	608.9
Cardiac catheterization	1,010	393.8
Cesarean section	917	357.7
Repair of current obstetric laceration	860	335.3
Artificial rupture of membranes	744	290.3
Puncture of vessel	600	233.8
Hysterectomy	562	219.0
Cholecystectomy	502	195.6
Coronary artery bypass graft	485	189.3
Dophorectomy and salpingo-oophorectomy	443	172.6
Open reduction of fracture with internal fixation	423	164.8
Removal of coronary artery obstruction	398	155.3
Bilateral destruction or occlusion of fallopian tubes	384	149.6
ysis of peritoneal adhesions	347	135.5
Debridement of wound, infection, or burn	334	130.2
excision or destruction of intervertebral disc	333	130.0
Prostatectomy	317	123.7
nsertion, replacement, removal, and revision of pacemaker leads or device	281	109.6
Appendectomy, excluding incidental	250	97.5

<sup>&</sup>lt;sup>1</sup>Includes data for surgical conditions not shown in table. See appendix II for ICD-9-CM codes included.

Table G. Number and rate of all-listed nonsurgical procedures for discharges from short-stay hospitals, by selected procedure categories: United States, 1993

[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	Number in thousands	Rate per 100,000 population
Nonsurgical procedures <sup>1</sup>	18,842	7,347.5
Arteriography and angiocardiography using contrast material	1,731	674.9
Diagnostic ultrasound	1,420	553.9
Computerized axial tomography	1,158	451.8
Fetal EKG and fetal monitoring not otherwise specified	1,145	446.5
Manual assisted delivery	946	368.8
Respiratory therapy	876	341.7
Circulatory monitoring	505	196.9
Endoscopy of small intestine without biopsy	495	193.1
Radioisotope scan	412	160.6
Injection or infusion of cancer chemotherapeutic substance	388	151.3
Endoscopy of large intestine without biopsy	347	135.2
Spinal tap	334	130.1
Hemodialysis	328	128.1
Medical induction of labor	301	117.3
Cystoscopy without biopsy	300	116.9

<sup>&</sup>lt;sup>1</sup>Includes data for nonsurgical procedures not shown in table. See appendix II for ICD-9-CM codes included.

tion, repair of current obstetric laceration, and artificial rupture of membranes. The rate per 100 deliveries was 22.8 for cesarean section and 18.5 for artificial rupture of membranes. There were 50.4 episiotomies and 27.8 repairs of current obstetric lacerations per 100 vaginal deliveries.

The cardiovascular procedures of cardiac catheterization; puncture of vessel; coronary artery bypass graft; removal of coronary artery obstruction; and insertion, replacement, removal, and revision of pacemaker leads or device together accounted for 12 percent of all surgical procedures on hospital inpatients.

Inpatients discharged from short-stay hospitals had an estimated 18,842,000 nonsurgical procedures (table G). Four nonsurgical procedures accounted for more than 1 million procedures each. These were arteriography and angiocardiography using contrast material (1.7 million), diagnostic ultrasound (1.4 million), computerized axial tomography (1.2 million), and fetal EKG and fetal monitoring (1.1 million). These four procedures accounted for 29 percent of all nonsurgical procedures. Fetal EKG and fetal monitoring were performed at the rate of 28.5 per 100 deliveries.

Table H. Number and rate of all-listed surgical procedures for discharges from short-stay hospitals 65 years of age and over, by age and selected procedure categories: United States, 1993

[Discharges of inpatients 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
	1	Number in thousand	S
Surgical procedures <sup>1</sup>	7,040	3,670	3,370
Cardiac catheterization	485	322	164
Coronary artery bypass graft	260	186	74
Prostatectomy	250	139	110
nsertion, replacement, removal, and revision of pacemaker leads or device	232	74	159
Open reduction of fracture with internal fixation	189	55	133
Removal of coronary artery obstruction	183	127	56
Cholecystectomy	168	93	75
otal knee replacement	131	78	53
Partial excision of large intestine	120	54	66
Debridement of wound, infection, or burn	118	53	65
	Rate	per 100,000 popul	ation
Surgical procedures <sup>1</sup>	21,468.6	19,674.3	23,837.3
Cardiac catheterization	1,479.8	1,723.9	1,157.9
Coronary artery bypass graft	791.8	995.0	523.9
rostatectomy	761.3	747.6	779.4
nsertion, replacement, removal, and revision of pacemaker leads or device	708.2	394.6	1,122.0
Open reduction of fracture with internal fixation	575.0	297.0	941.7
emoval of coronary artery obstruction	558.4	680.2	397.8
holecystectomy	512.8	499.0	530.9
otal knee replacement	400.0	420.2	373.5
artial excision of large intestine	367.3	290.6	468.6
Debridement of wound, infection, or burn	361.3	284.4	462.9

<sup>&</sup>lt;sup>1</sup>Includes procedures not shown in table. See appendix II for ICD-9-CM codes included.

Table J. Number and rate of all-listed nonsurgical procedures for discharges from short-stay hospitals 65 years of age and over, by age and selected procedure categories: United States, 1993

[Discharges of inpatients 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
	1	Number in thousand	S
Nonsurgical procedures <sup>1</sup>	7,506	3,418	4,088
Arteriography and angiocardiography using contrast material	830	528	302
Diagnostic ultrasound	688	296	392
Computerized axial tomography	576	237	339
Respiratory therapy	409	167	243
Endoscopy of small intestine without biopsy	279	108	171
Circulatory monitoring	271	123	148
Radioisotope scan	222	105	117
Endoscopy of large intestine without biopsy	209	71	139
Cystoscopy without biopsy	163	77	86
	Rate	e per 100,000 popula	ation
Nonsurgical procedures <sup>1</sup>	22,891.4	18,327.2	28,914.5
Arteriography and angiocardiography using contrast material	2,531.1	2,831.3	2,135.2
Diagnostic ultrasound	2,097.6	1,586.8	2,771.6
Computerized axial tomography	1,757.9	1,272.4	2,398.6
Respiratory therapy	1,248.2	893.3	1,716.4
Endoscopy of small intestine without biopsy	851.0	581.4	1,206.8
Circulatory monitoring	826.7	660.9	1,045.5
Radioisotope scan	676.1	560.3	828.8
indoscopy of large intestine without biopsy	638.4	378.0	982.0
Cystoscopy without biopsy	495.9	411.3	607.6

<sup>&</sup>lt;sup>1</sup>Includes procedures not shown in table. See appendix II for ICD-9-CM codes included.

An estimated 7,040,000 surgical procedures were performed on discharges 65 years of age and over (table H). Four cardiovascular procedures accounted for 16 percent of the surgical procedures on the elderly. These four procedures were cardiac catheterization; coronary artery bypass graft; insertion, replacement, removal, and revision of pacemaker leads or device; and removal of coronary artery obstruction. Prostatectomy made up an additional 4 percent of the surgical procedures for discharges 65 years of age and over.

The estimated number of nonsurgical procedures for discharges 65 years of age and over was 7,506,000 (table J). Arteriography and angiocardiography using contrast material accounted for 11 percent of these procedures, diagnostic ultrasound for 9 percent, and computerized axial tomography for 8 percent.

#### **Patients With HIV diagnoses**

The estimated number of discharges with human immunodeficiency virus (HIV) diagnoses increased from 10,000 in 1984 to 225,000 in 1993 (table K). The discharge rate for patients with HIV diagnoses rose from 4.3 to 87.7 per 100,000 population during this period. These data include discharges 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 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 discharges with HIV diagnoses from 1991 through 1993 are shown in table L. During this

3-year period, 78 percent of HIV discharges were male, 77 percent were 25–44 years of age, 42 percent were white, and 39 percent were from hospitals in the Northeast.

In 1993, the discharge rate per 100,000 population was 139.5 for males with HIV and 38.8 for females with HIV. Black patients with HIV diagnoses had a discharge rate of 293.0 per 100,000 population compared with a rate of 43.6 for white HIV patients. However, these rates may be underestimated because race was not reported for 14 percent of HIV patients in 1993. The rate per 100,000 population of discharges with HIV diagnoses was 184.2 in the Northeast, compared with 72.0 in the South, 70.5 in the West, and 45.1 in the Midwest.

Table K. Selected measures of short-stay hospital use for discharges with human immunodeficiency virus (HIV) diagnoses: United States, 1984–93

[Discharges of inpatients 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* (ICD-9-CM) codes: 042–044, 279.19, 795.8]

Measure of hospital use	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Number of discharges in thousands	10	23	44	67	95	140	146	165	194	225
Rate of discharges per 100,000 population	4.3	9.5	18.2	27.5	39.1	56.7	58.7	65.7	76.4	87.7
Number of days of care in thousands	123	387	714	936	1,277	1,731	2,188	2,107	2,136	2,561
Rate of days of care per 100,000 population	52.7	163.1	298.5	387.3	522.9	702.3	877.4	841.2	842.8	998.7
Average length of stay in days	12.1	17.1	16.4	14.1	13.4	12.4	14.9	12.8	11.0	11.4

Table L. Number and rate of discharges from short-stay hospitals with human immunodeficiency virus (HIV) diagnoses, by selected characteristics: United States, 1991–93

[Discharges of inpatients 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* (ICD-9-CM) codes: 042–044, 279.19, 795.8]

Characteristic	1991	1992	1993	1991	1992	1993
	Nι	ımber in thousan	ds	Rate per 100,000 population		
All HIV discharges	165	194	225	65.7	76.4	87.7
Sex						
Male	127	153	174	104.6	124.1	139.5
Female	37	41	51	29.1	31.4	38.8
Age						
Under 25 years	16	16	14	17.1	18.0	15.5
25–29 years	25	26	37	122.3	133.3	191.7
30–34 years	38	42	46	173.7	189.6	208.3
35–39 years	36	53	51	178.7	253.1	238.1
40–44 years	25	30	40	132.4	158.0	209.4
45 years and over	25	27	37	32.0	33.0	44.6
Race <sup>1</sup>						
White	71	80	93	33.9	37.9	43.6
Black	62	74	93	199.8	236.6	293.0
All other	*7	10	*7	*66.0	94.7	*66.1
Not stated	25	29	31			
Region						
Northeast	61	75	94	120.7	147.8	184.2
Midwest	26	23	28	43.7	37.4	45.1
South	44	56	64	50.6	63.6	72.0
West	33	40	39	62.3	73.3	70.5

<sup>&</sup>lt;sup>1</sup>Numbers and rates for specific race groups are underestimated because race was not reported for all HIV discharges.

#### **Hospital deaths**

In 1993, 95 percent of discharges left short-stay hospitals alive, 3 percent were discharged dead, and 2 percent had an unreported discharge status. The estimated 844,000 patients discharged dead represented approximately 37 percent of all deaths during 1993 (5).

As shown in table M, 426,000 (50 percent) of hospital deaths were female and 418,000 (50 percent) were male.

Patients 65 years of age and over accounted for 623,000 hospital deaths (74 percent).

The fatality rates shown in tables M and N were computed by dividing the number of deaths for a category by the total number of discharges for that category and multiplying by 100. These rates are conservative because all the discharges

Table M. Number of deaths and fatality rate for discharges from short-stay hospitals, by sex and age: United States, 1993 [Discharges of inpatients from non-Federal hospitals. Excludes newborn infants]

Age	Both sexes	Male	Female	Both sexes	Male	Female
	Nu	mber in thous	ands	Rat	e per 100 disch	narges
All ages	844	418	426	2.7	3.4	2.3
Jnder 65 years	222	121	100	1.1	1.6	0.8
Under 15 years	14	*8	*6	0.7	*0.7	*0.6
15–44 years	61	36	26	0.5	1.1	0.3
45–64 years	146	78	69	2.3	2.5	2.2
65 years and over	623	296	326	5.6	6.2	5.1

Table N. Number of deaths and fatality rate for discharges from short-stay hospitals, by age and selected first-listed diagnoses: United States, 1993

[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)]

First-listed diagnosis and ICD-9-CM code	All ages	Under 65 years	65 years and over	All ages	Under 65 years	65 years and over
	1	Number in thous	ands	Ra	ate per 100 disc	harges
- All deaths <sup>1</sup>	844	222	623	2.7	1.1	5.6
Heart disease	179	31	148	4.5	2.2	5.9
Acute myocardial infarction	75	14	61	10.1	4.7	13.7
Congestive heart failure	54	*	49	6.1	*	7.2
Cardiac dysrhythmias	17	*6	11	3.1	*3.6	2.9
Chronic ischemic heart disease	14	*	12	1.1	*	1.6
Malignant neoplasms	122	46	75	8.2	6.9	9.3
Malignant neoplasms of trachea, bronchus, and lung162,197.0,197.3	30	11	18	15.2	13.6	16.4
Pneumonia	82	14	69	7.0	2.5	10.7
Cerebrovascular disease	61	12	49	7.2	5.4	7.8
njury and poisoning	50	19	31	1.8	1.1	3.3
Septicemia	35	*7	28	13.0	*7.5	15.7
Nephritis, nephrotic syndrome, and nephrosis	14	*	12	13.2	*	19.4

<sup>&</sup>lt;sup>1</sup>Includes data for deaths not shown in table.

Table O. Average length of stay for discharges from short-stay hospitals, by discharge status, sex, and age: United States, 1993

			Dischar	ge status		
	Alive			Dead		
Age	Both sexes	Male	Female	Both sexes	Male	Female
			Average length	of stay in days		
All ages	5.8	6.4	5.5	10.9	11.3	10.4
Under 65 years	4.8	5.8	4.3	12.4	12.8	12.0
Under 15 years	5.1	5.0	5.3	10.6	*8.9	*13.0
15–44 years	4.1	5.7	3.5	12.4	13.0	11.6
45–64 years	6.0	6.1	5.9	12.6	13.1	12.1
65 years and over	7.7	7.3	8.0	10.3	10.7	9.9

whose status was not stated were assumed to be discharged alive.

In 1993, the fatality rate was 3.4 for males compared with 2.3 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 5.6.

Table N shows estimated numbers of hospital deaths and fatality rates for selected conditions. These estimates are not the same as the data for underlying cause of death reported in *Vital Statistics of the United States*. Heart

disease and malignant neoplasms were responsible for 301,000 (36 percent) of all hospital deaths. Fatality rates of more than 10 per 100 discharges were found for malignant neoplasm of trachea, bronchus, and lung (15.2); nephritis, nephrotic syndrome, and nephrosis (13.2); septicemia (13.0); and acute myocardial infarction (10.1).

Average lengths of stay are shown by discharge status in table O. The average length of stay for discharges of live patients was 5.8 days compared with 10.9 days for those who died in the hospital.

#### **Newborn infants**

Newborn infants are defined as patients admitted to the hospital by birth. In 1993, the number of newborn infants was estimated at 3,579,000, but this was probably an underestimate. The number of women with deliveries estimated from the survey was 4,015,000, and the estimated number of live births for 1993 from the vital statistics system was 4,039,000 (5).

As shown in table P, males made up 51 percent and females 49 percent of newborn infants. The South Region had 36 percent of newborn infants, the West 23 percent, the Midwest 22 percent, and the Northeast 19 percent. The average length of stay was 3.1 days for all newborn infants and ranged from 3.6 days in the Northeast Region to 2.5 days in the West Region.

The length of stay of newborn infants has been decreasing over time (table Q). In 1993, 69 percent of all newborn infants were hospitalized for fewer than 3 days, and 30 percent had stays of 1 day or less. In 1980, only 31 percent of newborn infants were in the hospital for fewer than 3 days, and 9 percent stayed 1 day or less.

Well newborn infants are defined as those who did not have any illnesses or risk-related diagnoses. Sick newborn infants had at least one diagnosis in addition to the diagnosis

Table P. Number, percent distribution, and average length of stay of newborn infants discharged from short-stay hospitals, by sex and geographic region: United States, 1993

[Discharges of inpatients from non-Federal hospitals]

	Discha		
Sex and region	Number in thousands	Percent distribution	Average length of stay in days
All newborn infants	3,579	100.0	3.1
Sex			
Male	1,823 1,756	50.9 49.1	3.1 3.0
Region			
Northeast	689 793 1,290 807	19.3 22.2 36.0 22.5	3.6 3.0 3.2 2.5

Table Q. Number and percent distribution of newborn infants discharged from short-stay hospitals by length of stay, with average length of stay by health status: United States, selected years 1980–93

[Discharges of inpatients from non-Federal hospitals]

Length of stay and health status	1980	1985	1990	1993
Length of stay	1	Number in	thousand	s
All newborn infants	3,824	3,794	3,869	3,579
Less than 1 day	69	84	79	75
1 day	270	428	693	1,001
2 days	842	1,057	1,624	1,379
3 days	1,175	1,034	636	609
4 days	618	528	447	208
5–7 days	633	497	232	140
8 days or more	218	167	157	165
		Percent c	listribution	
All newborn infants	100.0	100.0	100.0	100.0
Less than 1 day	1.8	2.2	2.0	2.1
1 day	7.1	11.3	17.9	28.0
2 days	22.0	27.9	42.0	38.5
3 days	30.7	27.3	16.4	17.0
4 days	16.2	13.9	11.6	5.8
5–7 days	16.5	13.1	6.0	3.9
8 days or more	5.7	4.4	4.1	4.6
Health status	Avera	age length	of stay in	days
All newborn infants	4.3	3.8	3.3	3.1
Well	3.2	2.8	2.3	2.0
Sick	7.1	5.7	4.8	4.7

of newborn infant. Using this definition, 42 percent of male newborn infants and 39 percent of female newborn infants were classified as sick in 1993 (table R). The average length of stay for sick newborn infants in 1993 was 4.7 days, compared with an average stay of 2.0 days for well newborn infants.

Frequent diagnoses for sick newborn infants are shown in table S. Hemolytic disease of fetus or newborn, due to isoimmunization and other perinatal jaundice, accounted for 20 percent of sick newborn diagnoses. Respiratory distress syndrome and other respiratory conditions of fetus and newborn made up 14 percent of sick newborn diagnoses, congenital anomalies were 10 percent, disorders relating to short gestation and unspecified low birthweight (prematurity) were 9 percent, and disorders relating to long gestation and high birthweight were 8 percent.

Table R. Number and average length of stay of newborn infants discharged from short-stay hospitals, by sex and health status: United States, 1993

[Discharges of inpatients from non-Federal hospitals]

Health status	Both sexes	Male	Female
	Nu	mber in thous	ands
Total	3,579	1,823	1,756
Well	2,146	1,066	1,080
Sick	1,433	757	676
	Average	e length of sta	y in days
Total	3.1	3.1	3.0
Well	2.0	2.0	2.0
Sick	4.7	4.8	4.6

Table S. Number of all-listed diagnoses for sick newborn infants discharged from short-stay hospitals, by sex and selected diagnoses: United States, 1993

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

All-listed diagnoses and ICD-9-CM code	Both sexes	Male	Female
	Numl	ber in thou	usands
All diagnoses for sick newborn infants <sup>1</sup>	2,323	1,272	1,051
Hemolytic disease of fetus or newborn, due to isoimmunization and other perinatal jaundice	475	257	217
Respiratory distress syndrome and other respiratory conditions of fetus and newborn	317	192	105
			125
Congenital anomalies	238	135	103
unspecified low birthweight (prematurity)765 Disorders relating to long gestation and	203	112	91
high birthweight	181	113	68

<sup>&</sup>lt;sup>1</sup>Includes data for diagnoses not shown in the table.

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Table 1. Number, percent distribution, and rate of discharges from short-stay hospitals and of days of care, with average lengths of stay, by sex and age: United States, 1993

		Discharges			Days of care		
Sex and age	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	30,825	100.0	120.2	184,601	100.0	719.9	6.0
Under 15 years	2,141	6.9	37.7	11,093	6.0	195.5	5.2
Under 1 year	710	2.3	181.2	4,529	2.5	1,155.4	6.4
1–4 years	654	2.1	41.4	2,572	1.4	162.9	3.9
5–14 years	777	2.5	21.0	3,992	2.2	107.7	5.1
15–44 years	11,200	36.3	95.4	46,854	25.4	399.3	4.2
15–19 years	1,210	3.9	70.4	4,684	2.5	272.8	3.9
20-24 years	1,878	6.1	102.7	6,278	3.4	343.3	3.3
25–34 years	4,655	15.1	112.6	18,422	10.0	445.6	4.0
35–44 years	3,457	11.2	85.3	17,471	9.5	430.9	5.1
45–64 years	6,283	20.4	126.8	38,899	21.1	785.0	6.2
45–54 years	2,976	9.7	104.0	17,388	9.4	607.4	5.8
55–64 years	3,307	10.7	158.1	21,511	11.7	1,028.2	6.5
65 years and over	11,201	36.3	341.6	87,755	47.5	2,676.2	7.8
65–74 years	4,890	15.9	262.2	35,945	19.5	1,927.1	7.4
75–84 years	4,314	14.0	400.6	34,830	18.9	3,234.3	8.1
85 years and over	1,996	6.5	592.6	16,979	9.2	5,039.9	8.5
Under 17 years	2,500	8.1	39.6	12,872	7.0	203.9	5.1
17–69 years	19,489	63.2	114.7	100,806	54.6	593.2	5.2
70 years and over	8,837	28.7	388.1	70,923	38.4	3,114.6	8.0
•	0,037	20.7	300.1	70,923	30.4	3,114.0	0.0
Male							
All ages	12,262	100.0	98.4	80,170	100.0	643.5	6.5
Under 15 years	1,193	9.7	41.1	5,992	7.5	206.2	5.0
Under 1 year	412	3.4	205.7	2,534	3.2	1,264.9	6.1
1–4 years	371	3.0	46.0	1,364	1.7	168.9	3.7
5–14 years	410	3.3	21.6	2,094	2.6	110.4	5.1
15–44 years	3,179	25.9	54.5	18,541	23.1	317.8	5.8
15–19 years	305	2.5	34.7	1,695	2.1	193.1	5.6
20–24 years	365	3.0	40.0	1,964	2.5	215.3	5.4
25–34 years	1,080	8.8	52.8	6,412	8.0	313.4	5.9
35–44 years	1,430	11.7	71.5	8,470	10.6	423.9	5.9
45–64 years	3,143	25.6	131.5	19,864	24.8	831.0	6.3
45–54 years	1,453	11.8	103.9	8,861	11.1	634.0	6.1
55–64 years	1,690	13.8	170.2	11,002	13.7	1,108.2	6.5
65 years and over	4.748	38.7	357.2	35,774	44.6	2,691.2	7.5
65–74 years	2,341	19.1	284.2	16,740	20.9	2,031.5	7.2
75–84 years	1,781	14.5	433.2	13,839	17.3	3,365.5	7.8
85 years and over	626	5.1	661.5	5,195	6.5	5,491.5	8.3
•	1,307	10.7	40.1		8.4	206.2	5.1
Under 17 years	1,307 7,374	10.7 60.1	40.1 88.7	6,731 45,776	8.4 57.1	206.2 550.4	5.1 6.2
17–69 years		29.2	407.7		34.5		6.2 7.7
70 years and over	3,581	29.2	407.7	27,663	34.5	3,149.2	1.1

Table 1. Number, percent distribution, and rate of discharges from short-stay hospitals and of days of care, with average lengths of stay, by sex and age: United States, 1993—Con.

		Discharges Days of care					
Sex and age	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
Female							
All ages	18,563	100.0	140.8	104,431	100.0	792.1	5.6
Under 15 years	948	5.1	34.2	5,101	4.9	184.2	5.4
Under 1 year	298	1.6	155.7	1,996	1.9	1,041.0	6.7
1–4 years	282	1.5	36.6	1,208	1.2	156.7	4.3
5–14 years	368	2.0	20.3	1,898	1.8	105.0	5.2
15–44 years	8,021	43.2	136.0	28,313	27.1	479.9	3.5
15–19 years	905	4.9	107.8	2,989	2.9	356.0	3.3
20-24 years	1,513	8.1	165.2	4,313	4.1	470.9	2.9
25–34 years	3,576	19.3	171.2	12,010	11.5	575.1	3.4
35–44 years	2,028	10.9	98.6	9,001	8.6	437.8	4.4
45-64 years	3,141	16.9	122.5	19,035	18.2	742.2	6.1
45–54 years	1,524	8.2	104.0	8,526	8.2	581.9	5.6
55–64 years	1,617	8.7	147.1	10,509	10.1	955.9	6.5
65 years and over	6,453	34.8	330.9	51,981	49.8	2,666.0	8.1
65–74 years	2,549	13.7	244.7	19,205	18.4	1,843.6	7.5
75–84 years	2,533	13.6	380.4	20,992	20.1	3,153.3	8.3
85 years and over	1,371	7.4	565.5	11,784	11.3	4,861.6	8.6
Under 17 years	1,192	6.4	38.3	6,142	5.9	197.5	5.2
17–69 years	12,115	65.3	139.6	55,030	52.7	634.2	4.5
70 years and over	5,255	28.3	375.7	43,260	41.4	3,092.6	8.2

Table 2. Number, percent distribution, and rate of discharges from short-stay hospitals and of days of care, with average lengths of stay by sex, race, and age: United States, 1993

		Discharges			Days of care		
Sex, race, and age	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	30,825	100.0	120.2	184,601	100.0	719.9	6.0
Under 15 years	2,141	6.9	37.7	11,093	6.0	195.5	5.2
15–44 years	11,200	36.3	95.4	46,854	25.4	399.3	4.2
45–64 years	6,283	20.4	126.8	38,899	21.1	785.0	6.2
65 years and over	11,201	36.3	341.6	87,755	47.5	2,676.2	7.8
·		65.2	94.1	ŕ	65.8	569.0	6.0
White, all ages	20,101 1,115	3.6	24.7	121,542 5,143	2.8	114.0	4.6
Under 15 years	6,604	21.4	68.6	26,939	14.6	279.7	4.0
15–44 years	4,233	13.7	99.0		13.7	590.6	6.0
45–64 years				25,249			
65 years and over	8,149	26.4	276.7	64,210	34.8	2,180.5	7.9
Black, all ages	3,660	11.9	114.8	23,583	12.8	739.6	6.4
Under 15 years	377	1.2	42.7	1,832	1.0	207.8	4.9
15–44 years	1,706	5.5	110.4	8,700	4.7	563.3	5.1
45–64 years	748	2.4	149.9	5,701	3.1	1,142.9	7.6
65 years and over	830	2.7	314.4	7,351	4.0	2,785.5	8.9
All other, all ages	1,253	4.1	114.6	6,885	3.7	630.1	5.5
Under 15 years	127	0.4	45.0	570	0.3	201.8	4.5
15–44 years	649	2.1	116.2	2,435	1.3	435.9	3.8
45–64 years	208	0.7	114.5	1,477	0.8	815.0	7.1
65 years and over	269	0.9	381.6	2,403	1.3	3,409.0	8.9
Race not stated, all ages	5,812	18.9		32,592	17.7		5.6
Under 15 years	522	1.7		3,548	1.9		6.8
15–44 years	2,241	7.3		8,780	4.8		3.9
45–64 years	1,096	3.6		6,473	3.5		5.9
65 years and over	1,953	6.3		13,790	7.5		7.1
Male							
All races, all ages	12,262	100.0	98.4	80,170	100.0	643.5	6.5
Under 15 years	1,193	9.7	41.1	5,992	7.5	206.2	5.0
15–44 years	3,179	25.9	54.5	18,541	23.1	317.8	5.8
	3,143	25.6	131.5	19,864	24.8	831.0	6.3
45–64 years	4,748	38.7	357.2	35,774	44.6	2,691.2	7.5
65 years and over							
White, all ages	8,132	66.3	78.0	52,398	65.4	502.6	6.4
Under 15 years	630	5.1	27.2	2,847	3.6	123.0	4.5
15–44 years	1,934	15.8	40.0	10,768	13.4	222.9	5.6
45–64 years	2,112	17.2	101.4	12,815	16.0	615.2	6.1
65 years and over	3,457	28.2	288.8	25,967	32.4	2,169.5	7.5
Black, all ages	1,445	11.8	96.2	10,626	13.3	707.4	7.4
Under 15 years	215	1.8	48.0	985	1.2	220.5	4.6
15–44 years	538	4.4	73.6	3,735	4.7	510.7	6.9
45–64 years	377	3.1	169.0	3,063	3.8	1,374.3	8.1
65 years and over	316	2.6	310.0	2,843	3.5	2,793.1	9.0
All other, all ages	419	3.4	78.8	2,909	3.6	547.0	6.9
Under 15 years	66	0.5	46.1	277	0.3	192.6	4.2
15–44 years	125	1.0	46.0	810	1.0	296.9	6.5
45–64 years	105	0.9	124.2	702	0.9	828.2	6.7
65 years and over	122	1.0	399.5	1,121	1.4	3,662.4	9.2
Race not stated, all ages	2,266	18.5		14,237	17.8		6.3
Under 15 years	282	2.3		1,883	2.3		6.7
15–44 years	582	4.7		3,228	4.0		5.6
45–64 years	549	4.5		3,283	4.1		6.0
65 years and over	853	7.0		5,842	7.3		6.8

Table 2. Number, percent distribution, and rate of discharges from short-stay hospitals and of days of care, with average lengths of stay by sex, race, and age: United States, 1993

	Discharges						
Sex, race, and age	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
Female							
All races, all ages	18,563	100.0	140.8	104,431	100.0	792.1	5.6
Under 15 years	948	5.1	34.2	5,101	4.9	184.2	5.4
15–44 years	8,021	43.2	136.0	28,313	27.1	479.9	3.5
45–64 years	3,141	16.9	122.5	19,035	18.2	742.2	6.1
65 years and over	6,453	34.8	330.9	51,981	49.8	2,666.0	8.1
White, all ages	11,969	64.5	109.4	69,144	66.2	632.2	5.8
Under 15 years	485	2.6	22.1	2,296	2.2	104.5	4.7
15-44 years	4,670	25.2	97.3	16,170	15.5	336.8	3.5
45–64 years	2,121	11.4	96.8	12,434	11.9	567.3	5.9
65 years and over	4,692	25.3	268.5	38,243	36.6	2,188.2	8.2
Black, all ages	2,215	11.9	131.3	12,957	12.4	768.2	5.9
Under 15 years	162	0.9	37.2	847	0.8	194.7	5.2
15-44 years	1,167	6.3	143.5	4,966	4.8	610.6	4.3
45–64 years	371	2.0	134.2	2,637	2.5	954.2	7.1
65 years and over	514	2.8	317.2	4,508	4.3	2,780.7	8.8
All other, all ages	834	4.5	148.6	3,976	3.8	708.8	4.8
Under 15 years	61	0.3	43.9	293	0.3	211.4	4.8
15–44 years	524	2.8	183.1	1,625	1.6	568.4	3.1
45–64 years	102	0.6	106.0	775	0.7	803.4	7.6
65 years and over	147	0.8	367.0	1,283	1.2	3,206.6	8.7
Race not stated, all ages	3,546	19.1		18,354	17.6		5.2
Under 15 years	240	1.3		1,665	1.6		6.9
15–44 years	1,660	8.9		5,552	5.3		3.3
45–64 years	546	2.9		3,189	3.1		5.8
65 years and over	1,099	5.9		7,948	7.6		7.2

Table 3. Number of discharges from short-stay hospitals, days of care, and average lengths of stay, by principal expected source of payment, geographic region, and age: United States, 1993

Region and age	All principal expected sources of payment <sup>1</sup>	Private insurance	Medicare	Medicaid	Worker's compen- sation	Other government payments	Self-pay	Other payments and no charge
United States			Numbe	er of dischar	ges in thous	ands		
All ages	30,825	10,449	11,657	4,531	388	546	1,505	1,049
Under 15 years	2,141	904	29	856	_	64	119	116
15–44 years	11,200	5,533	516	2,823	235	306	930	552
45–64 years	6,283	3,480	997	702	125	144	397	288
65 years and over	11,201	533	10,115	150	28	32	59	93
Northeast								
All ages	6,965	2,333	2,691	1,024	69	56	328	276
Under 15 years	455	204	*	152	_	*	34	44
15–44 years	2,399	1,148	129	633	46	25	209	146
45–64 years	1,517	883	216	196	20	15	72	76
65 years and over	2,593	97	2,342	43	Î	12	13	11
Midwest								
All ages	7,097	2,474	2,979	864	49	134	289	204
Under 15 years	441	210	*	152	_	14	19	35
15–44 years	2,418	1,311	115	547	28	85	185	105
45–64 years	1,416	859	212	149	17	31	69	55
65 years and over	2,821	94	2,647	17	*	*	15	9
South								
All ages	11,580	3,900	4,395	1,586	208	262	690	228
Under 15 years	797	324	13	335	_	26	50	18
15–44 years	4,254	2,146	168	983	130	146	405	130
45–64 years	2,383	1,256	421	221	66	78	213	65
65 years and over	4,146	173	3,793	47	12	11	22	14
West								
All ages	5,183	1,742	1,592	1,055	63	95	198	341
Under 15 years	448	165	*8	217	-	20	15	19
15–44 years	2,129	927	104	659	32	50	131	171
45–64 years	967	481	147	136	22	20	43	92
65 years and over	1,640	169	1,333	43	*8	*5	9	59
United States			Numbe	r of days of	care in thous	sands		
All ages	184,601	46,645	91,578	24,232	1,975	2,952	7,446	5,474
Under 15 years	11,093	4,299	148	4,866	_	391	593	558
15–44 years	46,854	19,875	3,944	12,670	1,107	1,437	4,012	2,466
45–64 years	38,899	18,954	7,870	5,409	651	847	2,343	1,850
65 years and over	87,755	3,517	79,616	1,287	218	277	498	600
Northeast								
All ages	48,828	11,287	24,481	7,248	296	421	2,072	1,614
Under 15 years	2,168	883	*	781	-	*	169	245
15–44 years	12,279	4,528	1,092	4,227	168	165	1,118	695
45–64 years	10,496	5,156	1,941	1,740	99	97	615	577
65 years and over	23,885	720	21,430	500	*	122	170	97
Midwest								
All ages	43,064	11,322	22,765	4,875	222	719	1,361	1,094
Under 15 years	2,068	868	*	810	_	69	100	165
15–44 years	10,737	4,970	951	2,789	121	442	766	477
45–64 years	8,758	4,749	1,690	1,135	72	189	363	372
65 years and over	21,501	735	20,090	142	*	*	131	80
South								
All ages	66,408	17,176	33,230	7,410	1,143	1,306	3,350	1,093
Under 15 years	4,637	1,835	64	2,039	_	164	279	92
15–44 years	16,557	7,624	1,272	3,484	679	618	1,737	520
45–64 years	13,943	6,676	3,034	1,543	354	436	1,172	382
65 years and over	31,271	1,041	28,861	343	111	88	163	99

<sup>&</sup>lt;sup>1</sup>Includes discharges for which no expected source of payment was provided.

Table 3. Number of discharges from short-stay hospitals, days of care, and average lengths of stay, by principal expected source of payment, geographic region, and age: United States, 1993—Con.

Region and age	All principal expected sources of payment <sup>1</sup>	Private insurance	Medicare	Medicaid	Worker's compen- sation	Other government payments	Self-pay	Other payments and no charge
West			Numbe	r of days of o	care in thou	sands		
All ages	26,301	6,860	11,103	4,698	314	506	664	1,673
Under 15 years	2,220	713	*33	1,237	-	120	44	55
15–44 years	7,281	2,753	628	2,169	139	211	392	774
45–64 years	5,701	2,373	1,205	991	125	125	194	519
65 years and over	11,099	1,021	9,236	301	*50	*49	34	325
United States			Ave	rage length o	of stay in da	ys		
All ages	6.0	4.5	7.9	5.3	5.1	5.4	4.9	5.2
Under 15 years	5.2	4.8	5.1	5.7	_	6.1	5.0	4.8
15–44 years	4.2	3.6	7.6	4.5	4.7	4.7	4.3	4.5
45–64 years	6.2	5.4	7.9	7.7	5.2	5.9	5.9	6.4
65 years and over	7.8	6.6	7.9	8.6	7.9	8.6	8.5	6.5
Northeast								
All ages	7.0	4.8	9.1	7.1	4.3	7.6	6.3	5.8
Under 15 years	4.8	4.3	*	5.1	_	*	5.0	5.6
15–44 years	5.1	3.9	8.5	6.7	3.7	6.7	5.3	4.8
45–64 years	6.9	5.8	9.0	8.9	5.0	6.6	8.6	7.6
65 years and over	9.2	7.4	9.1	11.6	*	10.4	12.9	8.8
Midwest								
All ages	6.1	4.6	7.6	5.6	4.5	5.4	4.7	5.4
Under 15 years	4.7	4.1	*	5.3	_	5.0	5.2	4.7
15–44 years	4.4	3.8	8.2	5.1	4.4	5.2	4.1	4.6
45–64 years	6.2	5.5	8.0	7.6	4.3	6.1	5.2	6.8
65 years and over	7.6	7.8	7.6	8.4	*	*	8.8	9.1
South								
All ages	5.7	4.4	7.6	4.7	5.5	5.0	4.9	4.8
Under 15 years	5.8	5.7	5.0	6.1	_	6.3	5.5	5.2
15–44 years	3.9	3.6	7.6	3.5	5.2	4.2	4.3	4.0
45–64 years	5.8	5.3	7.2	7.0	5.3	5.6	5.5	5.9
65 years and over	7.5	6.0	7.6	7.4	9.6	7.8	7.5	6.9
West								
All ages	5.1	3.9	7.0	4.5	5.0	5.3	3.3	4.9
Under 15 years	5.0	4.3	*4.0	5.7	_	6.1	2.9	3.0
15–44 years	3.4	3.0	6.0	3.3	4.3	4.2	3.0	4.5
45–64 years	5.9	4.9	8.2	7.3	5.7	6.4	4.5	5.6
65 years and over	6.8	6.0	6.9	6.9	*6.0	*9.4	3.7	5.5

<sup>&</sup>lt;sup>1</sup>Includes discharges for which no expected source of payment was provided.

Table 4. Number and rate of discharges from short-stay hospitals and of days of care, with average lengths of stay, by sex, age, and geographic region: United States, 1993

	Disch	parges	Days	of care	
Sex, age, and region	Number in thousands	Rate per 1,000 population	Number in thousands	Rate per 1,000 population	Average length of stay in days
Both sexes					
Il ages:					
Inited States	30,825	120.2	184,601	719.9	6.0
Northeast	6,965	135.8	48,828	952.3	7.0
Midwest	7,097	116.4	43,064	706.4	6.1
South	11,580	130.6	66,408	749.1	5.7
West	5,183	93.3	26,301	473.4	5.1
Inder 15 years:					
Inited States	2,141	37.7	11,093	195.5	5.2
Northeast	455	43.5	2,168	207.0	4.8
Midwest	441	32.7	2,068	153.0	4.7
South	797	40.8	4,637	237.1	5.8
	448	33.9		168.0	5.0
West	440	33.9	2,220	100.0	5.0
5-44 years:					
nited States	11,200	95.4	46,854	399.3	4.2
Northeast	2,399	103.4	12,279	529.1	5.1
Midwest	2,418	87.6	10,737	389.0	4.4
South	4,254	105.2	16,557	409.4	3.9
West	2,129	81.6	7,281	279.1	3.4
5–64 years:	0.000	400.0	20,000	705.0	0.0
Inited States	6,283	126.8	38,899	785.0	6.2
Northeast	1,517	146.0	10,496	1,010.0	6.9
Midwest	1,416	120.2	8,758	743.4	6.2
South	2,383	137.8	13,943	806.3	5.8
West	967	95.9	5,701	565.5	5.9
5 years and over:					
Inited States	11,201	341.6	87,755	2,676.2	7.8
Northeast	2,593	360.2	23,885	3,317.8	9.2
Midwest	2,821	350.1	21,501	2,667.6	7.6
South	4,146	365.0	31,271	2,752.7	7.5
	,			,	6.8
West	1,640	265.6	11,099	1,797.9	0.0
Male					
II ages:					
Inited States	12,262	98.4	80,170	643.5	6.5
Northeast	2,931	118.8	21,611	876.0	7.4
Midwest	2,900	97.9	18,898	638.2	6.5
South	4,448	104.0	28,134	657.8	6.3
West	1,983	72.0	11,527	418.5	5.8
	1,000	. 2.0	11,021	110.0	0.0
Inder 15 years:					
Inited States	1,193	41.1	5,992	206.2	5.0
Northeast	254	47.5	1,208	225.3	4.7
Midwest	248	35.9	1,141	164.9	4.6
South	449	44.9	2,596	259.6	5.8
West	241	35.6	1,046	154.5	4.3
5–44 years:					
Inited States	3,179	54.5	18,541	317.8	5.8
Northeast	814	70.7	5,309	461.6	6.5
Midwest	720	52.4	4,347	316.3	6.0
South	1,121	56.4	6,118	307.7	5.5
West	524	39.6	2,767	209.4	5.3
5-64 years:					
nited States	3,143	131.5	19,864	831.0	6.3
	768	154.8	5,463	1,101.1	7.1
Northeast					
Midwest	715	125.2	4.418	773.8	6.2
	715 1,167	125.2 140.9	4,418 7,136	773.8 861.5	6.2 6.1

Table 4. Number and rate of discharges from short-stay hospitals and of days of care, with average lengths of stay, by sex, age, and geographic region: United States, 1993—Con.

	Disch	arges	Days	of care			
Sex, age, and region	Number in thousands	Rate per 1,000 population	Number in thousands	Rate per 1,000 population	Average length of stay in days		
65 years and over:							
United States	4,748	357.2	35,774	2,691.2	7.5		
Northeast	1,095	385.2	9,630	3,386.0	8.8		
Midwest	1,217	375.6	8,993	2,774.7	7.4		
South	1,710	371.7	12,284	2,669.8	7.2		
West	725	278.2	4,867	1,867.8	6.7		
Female							
III ages:							
Jnited States	18,563	140.8	104,431	792.1	5.6		
Northeast	4,033	151.6	27,217	1,023.1	6.7		
Midwest	4,197	133.9	24,166	770.9	5.8		
South	7,132	155.5	38,273	834.2	5.4		
West	3,200	114.2	14,774	527.4	4.6		
Inder 15 years:							
Inited States	948	34.2	5,101	184.2	5.4		
Northeast	201	39.3	960	187.8	4.8		
Midwest	193	29.3	927	140.6	4.8		
South	347	36.4	2,041	213.6	5.9		
West	207	32.1	1,174	182.2	5.7		
5-44 years:							
Jnited States	8,021	136.0	28,313	479.9	3.5		
Northeast	1,585	135.4	6,970	595.4	4.4		
Midwest	1,698	122.5	6,390	461.0	3.8		
South	3,133	152.4	10,439	507.7	3.3		
West	1,605	124.7	4,514	350.8	2.8		
5–64 years:							
Inited States	3,141	122.5	19,035	742.2	6.1		
Northeast	749	138.0	5,033	926.5	6.7		
Midwest	701	115.5	4,341	714.8	6.2		
South	1,216	135.0	6,807	755.6	5.6		
West	474	92.3	2,855	556.3	6.0		
5 years and over:							
Inited States	6,453	330.9	51,981	2,666.0	8.1		
Northeast	1,498	344.0	14,255	3,274.0	9.5		
Midwest	1,604	332.9	12,508	2,595.6	7.8		
South	2,436	360.4	18,987	2,809.5	7.8		
West	915	256.5	6,231	1,747.4	6.8		

Table 5. Number, percent distribution, and rate of discharges and of days of care, with average lengths of stay for women with deliveries discharged from short-stay hospitals, by age, race, and geographic region: United States, 1993

[Discharges of inpatients from non-Federal hospitals]

		Discharges					
Age, race, and region	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
Age							
10–54 years	4,015	100.0	48.6	9,766	100.0	118.1	2.4
10–14 years	11	0.3	1.3	30	0.3	3.3	2.6
15–44 years	4,001	99.7	67.8	9,731	99.6	164.9	2.4
15–19 years	489	12.2	58.2	1,157	11.9	137.8	2.4
20–24 years	982	24.5	107.3	2,249	23	245.5	2.3
25–29 years	1,182	29.4	121.4	2,884	29.5	296.1	2.4
30–34 years	921	22.9	82.7	2,279	23.3	204.6	2.5
35–44 years	426	10.6	20.7	1,161	11.9	56.5	2.7
45–54 years	*	*	*	*	*	*	*
10–17 years	194	4.8	13.8	469	4.8	33.3	2.4
18–54 years	3,821	95.2	55.7	9,296	95.2	135.5	2.4
Race							
White	2,257	56.2	33.4	5,430	55.6	80.3	2.4
Black	510	12.7	45.8	1,445	14.8	129.8	2.8
All other	354	8.8	90.5	817	8.4	209.1	2.3
Race not stated	894	22.3		2,073	21.2		2.3
Region							
Northeast	651	16.2	39.7	1,921	19.7	117.0	3.0
Midwest	818	20.4	41.9	2,031	20.8	103.9	2.5
South	1,560	38.9	54.1	3,802	38.9	131.9	2.4
West	986	24.6	55.0	2,013	20.6	112.3	2.0

Table 6. Number of discharges from short-stay hospitals, by age and first-listed diagnosis: United States, 1993

[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)]

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 d	ischarges in	thousands	
All conditions	30,825	2,141	11,200	6,283	11,201
Infectious and parasitic diseases	797	168	231	120	278
Septicemia	270	18	28	44	180
Neoplasms	1,855	39	346	584	885
Malignant neoplasms	1,482	31	180	459	811
Malignant neoplasm of large intestine and rectum	157	*	*7	46	103
Malignant neoplasm of trachea, bronchus, and lung	194	*	*7	75	111
Malignant neoplasm of breast	168	*	36	62	71
Benign neoplasms and neoplasms of uncertain behavior and unspecified nature210–229,235–239	373	*8	166	125	74
Endocrine, nutritional and metabolic diseases, and immunity disorders	1,210	90	256	300	564
Diabetes mellitus	464	15	120	147	182
Volume depletion	347	57 50	50	50	189
Diseases of the blood and blood-forming organs	327	50	100	63	113
Mental disorders	1,827	75	1,089	375	288
Psychoses	1,054	30	564	237	222
Alcohol dependence syndrome	252		175	62	13
Diseases of the nervous system and sense organs	681	95	179	154	252
Diseases of the central nervous system	278	29	98	61	90
Diseases of the ear and mastoid process	118	52	17	20	29
Diseases of the circulatory system	5,633	25	421	1,599	3,587
Heart disease	3,951	13	242	1,167	2,529
Acute myocardial infarction	745 492	*	47 25	250 208	446 258
Coronary atherosclerosis	842	*	45	299	499
Cardiac dysrhythmias	549	*	42	123	380
Congestive heart failure	875	*	21	169	681
Cerebrovascular disease	841	*	38	172	629
Diseases of the respiratory system	3,142	667	468	576	1,430
Acute respiratory infections	400	222	62	41	75
Chronic disease of tonsils and adenoids	37	26	9	*	-
Pneumonia	1,184	209	142	191	642
Asthma	468	159	128	94	87
Diseases of the digestive system	3,079	206	878	810	1,185
Ulcers of the stomach and small intestine	216	*	34	61	120
Appendicitis	223	47	131	29	16
Inguinal hernia	83	*8	17	19	40
Noninfectious enteritis and colitis	350	87	107	61	95
Cholelithiasis	476	*	168	146	161
Diseases of the genitourinary system	1,915	62	746	446	662
Calculus of kidney and ureter	225	*	104	84	36
Hyperplasia of prostate	185	*	*	44	140
Complications of pregnancy, childbirth, and the puerperium <sup>1</sup>	594	*	592	*	
Abortions and ectopic and molar pregnancies	133	*	132	*	
Diseases of the skin and subcutaneous tissue	451	37	129	105	180
Cellulitis and abscess	304	23	94	76	111
Diseases of the musculoskeletal system and connective tissue	1,561	37	481	433	611
Arthropathies and related disorders	541	11	111	114	305
Intervertebral disc disorders	391	*	206	131	55
Congenital anomalies	150	105	28	10	*8
Certain conditions originating in the perinatal period	139	134	*	*	*
Symptoms, signs, and ill-defined conditions	327	53	134	87	53
Injury and poisoning	2,718	238	1,007	515	959
Fractures, all sites	1,017	77	303	144	494
Fracture of neck of femur	307	*	*8	20	276
Intracranial injuries (excluding those with skull fracture)	160	30	72	23	35
Lacerations and open wounds	171	20	107	25	20
Supplementary classifications	4,419	57	4,110	105	147

<sup>&</sup>lt;sup>1</sup>The first-listed diagnoses for females with deliveries is coded V27, shown under "Supplementary classifications."

NOTE: See "Medical coding and edit," in appendix I, for information about changes in coding system and coding modifications for the National Hospital Discharge Survey.

Table 7. Rate of discharges from short-stay hospitals, by age and first-listed diagnosis: United States, 1993

[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)]

First-listed diagnosis and ICD-9-CM code	All ages	Under 15 years	15–44 years	45–64 years	65 years and over
	F	Rate of dischar	ges per 10,0	000 population	on
All conditions	1,202.1	377.3	954.5	1,268.1	3,415.7
nfectious and parasitic diseases	31.1	29.6	19.7	24.3	84.7
Septicemia	10.5	3.2	2.4	8.9	54.9
Neoplasms	72.3	7.0	29.5	117.8	270.0
Malignant neoplasms	57.8	5.5	15.4	92.6	247.4
Malignant neoplasm of large intestine and rectum	6.1	*	*0.6	9.3	31.5
Malignant neoplasm of trachea, bronchus, and lung	7.6	*	*0.6	15.1	33.9
Malignant neoplasm of breast	6.6	*	3.0	12.4	21.5
Benign neoplasms and neoplasms of uncertain behavior and unspecified nature210–229,235–239	14.5	*1.4	14.2	25.2	22.7
Endocrine, nutritional and metabolic diseases, and immunity disorders	47.2	15.9	21.8	60.6	171.9
Diabetes mellitus	18.1	2.6	10.2	29.8	55.4
Volume depletion	13.5	10.0	4.3	10.1	57.7
Diseases of the blood and blood-forming organs	12.7	8.9	8.5	12.8	34.4
Mental disorders	71.3	13.2	92.8	75.8	87.7
Psychoses	41.1	5.3	48.1	47.9	67.8
Alcohol dependence syndrome	9.8	*	14.9	12.5	4.1
•		46.0			
Diseases of the nervous system and sense organs	26.5	16.8 5.2	15.3 8.3	31.1 12.3	76.9 27.6
Diseases of the central nervous system	10.8				9.0
Diseases of the ear and mastoid process	4.6	9.1	1.5	4.0	
Diseases of the circulatory system	219.6	4.4	35.9	322.7	1,093.9
Heart disease	154.1	2.4	20.6	235.4	771.3
Acute myocardial infarction	29.0	*	4.0	50.5	136.0
Coronary atherosclerosis	19.2 32.8	*	2.2 3.8	42.1 60.3	78.7 152.0
	32.6 21.4	*	3.5	24.9	115.8
Cardiac dysrhythmias	34.1	*	1.8	34.1	207.6
Cerebrovascular disease	32.8	*	3.2	34.7	192.0
		447.0			
Diseases of the respiratory system	122.5	117.6 39.2	39.9 5.3	116.3 8.2	436.2 22.7
Acute respiratory infections	15.6 1.4	39.2 4.5	0.8	o.z *	22.1
Pneumonia	46.2	36.9	12.1	38.5	195.9
Asthma	18.3	28.0	10.9	19.0	26.6
Diseases of the digestive system	120.1 8.4	36.3	74.9 2.9	163.6 12.4	361.2 36.6
	8.7	8.3	11.2	5.8	4.8
Appendicitis.       .540–543         Inguinal hernia       .550	3.3	*1.4	1.4	3.8	12.2
Noninfectious enteritis and colitis	13.7	15.3	9.1	12.3	29.0
Cholelithiasis	18.6	*	14.3	29.5	49.0
		40.0			
Diseases of the genitourinary system	74.7	10.9	63.6	89.9	201.8
Calculus of kidney and ureter	8.8	*	8.8	16.9 8.9	11.1
Hyperplasia of prostate	7.2			0.9	42.7
Complications of pregnancy, childbirth, and the puerperium <sup>1</sup>	23.2	*	50.4	*	
Abortions and ectopic and molar pregnancies	5.2	•	11.3	•	• • • •
Diseases of the skin and subcutaneous tissue	17.6	6.5	11.0	21.3	54.8
Cellulitis and abscess	11.8	4.1	8.0	15.3	33.7
biseases of the musculoskeletal system and connective tissue	60.9	6.5	41.0	87.4	186.3
Arthropathies and related disorders	21.1	1.9	9.5	22.9	93.0
Intervertebral disc disorders	15.3	*	17.5	26.3	16.7
Congenital anomalies	5.9	18.5	2.3	2.0	*2.4
Certain conditions originating in the perinatal period	5.4	23.6	*	*	*
Symptoms, signs, and ill-defined conditions	12.7	9.3	11.4	17.5	16.3
njury and poisoning	106.0	41.9	85.8	103.9	292.3
Fractures, all sites	39.7	13.5	25.8	29.1	150.7
Fracture of neck of femur	12.0	*	*0.7	4.1	84.1
Intracranial injuries (excluding those with skull fracture)	6.2	5.3	6.1	4.6	10.7
		3.5	9.1	5.1	5.9
Lacerations and open wounds	6.7	0.0	5.1	0.1	0.0
Lacerations and open wounds	6.7 172.3	10.1	350.3	21.1	44.8

<sup>&</sup>lt;sup>1</sup>The first-listed diagnoses for females with deliveries is coded V27, shown under "Supplementary classifications."

NOTE: See "Medical coding and edit," in appendix I, for information about changes in coding system and coding modifications for the National Hospital Discharge Survey.

Table 8. Average length of stay for discharges from short-stay hospitals, by age and first-listed diagnosis: United States, 1993

First-listed diagnosis and ICD-9-CM code	All ages	Under 15 years	15–44 years	45–64 years	65 years and over	
	Average length of stay in days					
All conditions	6.0	5.2	4.2	6.2	7.8	
Infectious and parasitic diseases	7.9	4.4	7.7	9.5	9.6	
Septicemia	10.6	7.7	11.7	12.1	10.3	
Neoplasms	7.4	7.2	4.8	7.3	8.4	
Malignant neoplasms	8.1	7.0	6.1	8.0	8.6	
Malignant neoplasm of large intestine and rectum	11.0	7.U *	*9.3	9.8	11.7	
Malignant neoplasm of trachea, bronchus, and lung	8.7	*	*6.5	8.6	8.9	
Malignant neoplasm of breast	3.7	*	3.2	3.9	3.8	
Benign neoplasms and neoplasms of uncertain behavior and unspecified nature210–229,235–239	4.5	*8.0	3.5	4.5	6.1	
Endocrine, nutritional and metabolic diseases, and immunity disorders	6.6	4.1	5.2	6.1	7.8	
Diabetes mellitus	7.5	4.5	5.0	7.3	9.6	
Volume depletion	5.9	2.7	6.2	5.2	7.0	
·				5.8		
Diseases of the blood and blood-forming organs	5.8	4.5	5.3		6.8	
Mental disorders	10.3	14.5	9.3	10.5	12.5	
Psychoses	12.0	16.1	10.9	12.4	13.7	
Alcohol dependence syndrome	8.5	*	8.4	8.5	9.2	
Diseases of the nervous system and sense organs	5.4	4.2	5.1	5.2	6.3	
Diseases of the central nervous system	8.5	6.2	6.7	8.1	11.5	
Diseases of the ear and mastoid process	3.1	3.4	2.0	2.9	3.5	
Diseases of the circulatory system	6.7	5.2	5.3	5.9	7.2	
Heart disease	6.3	5.6	4.7	5.5	6.8	
Acute myocardial infarction	7.4	*	5.5	6.6	8.0	
Coronary atherosclerosis	6.0	*	4.1	5.2	6.9	
Other ischemic heart disease	4.5	*	3.2	4.1	4.9	
Cardiac dysrhythmias	4.8	*	2.7	4.4	5.2	
Congestive heart failure	7.5	*	6.2	6.5	7.8	
Cerebrovascular disease	8.4	*	9.0	8.3	8.4	
Diseases of the respiratory system	6.7	3.8	4.9	6.9	8.6	
Acute respiratory infections	4.0	3.2	3.6	4.4	6.4	
Chronic disease of tonsils and adenoids	1.3	1.3	1.2	*	_	
Pneumonia	7.8	4.8	6.6	7.4	9.2	
Asthma	4.4	3.4	3.5	5.4	6.7	
Diseases of the digestive system	5.7	4.0	4.4	5.4	7.1	
Ulcers of the stomach and small intestine	6.7	*	4.9	6.1	7.5	
Appendicitis	4.5	5.0	3.6	5.1	8.7	
Inguinal hernia	2.7	*2.5	1.6	1.9	3.7	
Noninfectious enteritis and colitis	4.8	2.5	4.0	5.5	7.6	
Cholelithiasis	4.2	*	3.3	3.2	6.1	
		4.4				
Diseases of the genitourinary system	4.5	4.1	3.4	4.0	6.1	
Calculus of kidney and ureter	2.9	*	2.8	2.6	4.0	
Hyperplasia of prostate	3.8			3.3	3.9	
Complications of pregnancy, childbirth, and the puerperium <sup>1</sup>	2.6	*	2.6	*		
Abortions and ectopic and molar pregnancies	2.0	*	2.0	*		
Diseases of the skin and subcutaneous tissue	7.6	3.9	6.5	7.5	9.2	
Cellulitis and abscess	6.6	3.8	5.8	6.8	7.7	
Diseases of the musculoskeletal system and connective tissue	5.8	4.7	3.7	4.8	8.2	
Arthropathies and related disorders	6.8	4.7	3.7	6.1	8.5	
Intervertebral disc disorders	4.0	*	3.5	3.9	5.9	
		7.0				
Congenital anomalies	6.7	7.2	4.8	4.8	*8.0	
Certain conditions originating in the perinatal period	11.3	11.5	*	*	*	
symptoms, signs, and ill-defined conditions	2.8	3.1	2.4	2.3	4.1	
njury and poisoning	6.4	4.6	4.8	6.3	8.5	
Fractures, all sites	7.5	4.6	4.6 5.6	6.4	9.4	
Fractures, all sites	7.5 10.3	4.3	5.6 *10.1	10.4	10.3	
Intracranial injuries (excluding those with skull fracture)	7.3	2.9	7.5	7.5	10.5	
Lacerations and open wounds	3.7	3.3	3.0	4.5	6.3	
Supplementary classifications	2.9	6.1	2.5	6.0	11.9	
Females with deliveries	2.4	2.6	2.4	*		

<sup>&</sup>lt;sup>1</sup>The first-listed diagnoses for females with deliveries is coded V27, shown under "Supplementary classifications."

Table 9. Number of discharges from short-stay hospitals, by sex and first-listed diagnosis: United States, 1993

First-listed diagnosis and ICD-9-CM code	Both sexes	Male	Female
	Number of	sands	
All conditions	30,825	12,262	18,563
nfectious and parasitic diseases	797	390	407
Septicemia	270	118	152
·			
leoplasms	1,855	759	1,096
Malignant neoplasms	1,482	690	792
Malignant neoplasm of large intestine and rectum	157	73	84
Malignant neoplasm of trachea, bronchus, and lung	194	114	80
Malignant neoplasm of breast	168	*	167
Benign neoplasms and neoplasms of uncertain behavior and unspecified nature210–229,235–239	373	69	304
ndocrine, nutritional and metabolic diseases, and immunity disorders	1,210	480	730
Diabetes mellitus	464	212	252
Volume depletion	347	129	218
iseases of the blood and blood-forming organs	327	149	178
ental disorders	1,827	959	868
Psychoses	1,054	500	554
Alcohol dependence syndrome	252	193	59
	681	312	369
seases of the nervous system and sense organs	278	312 119	369 159
·	118	59	59
Diseases of the ear and mastoid process			
iseases of the circulatory system	5,633	2,885	2,747
Heart disease	3,951	2,078	1,873
Acute myocardial infarction	745	435	310
Coronary atherosclerosis	492	322	170
Other ischemic heart disease	842	447	395
Cardiac dysrhythmias	549	267	282
Congestive heart failure	875	394	481
Cerebrovascular disease	841	385	456
iseases of the respiratory system	3,142	1,528	1,614
Acute respiratory infections	400	204	196
Chronic disease of tonsils and adenoids	37	17	20
Pneumonia	1,184	598	586
Asthma	468	191	278
seases of the digestive system	3,079	1,358	1,721
Ulcers of the stomach and small intestine	216	114	102
Appendicitis	223	131	92
Inguinal hernia	83	76	*8
Noninfectious enteritis and colitis	350	139	211
Cholelithiasis	476	134	342
iseases of the genitourinary system	1,915	663	1,252
Calculus of kidney and ureter	225	143	82
Hyperplasia of prostate	185	185	
omplications of pregnancy, childbirth, and the puerperium <sup>1</sup>	594		594
Abortions and ectopic and molar pregnancies	133		133
iseases of the skin and subcutaneous tissue	451	214	237
Cellulitis and abscess	304	148	155
iseases of the musculoskeletal system and connective tissue	1,561	687	874
Arthropathies and related disorders	541	215	325
Intervertebral disc disorders	391	219	172
ongenital anomalies	150	82	69
ertain conditions originating in the perinatal period	139	81	58
ymptoms, signs, and ill-defined conditions	327	153	174
jury and poisoning	2,718	1,395	1,323
Fractures, all sites	1,017	440	577
Fracture of neck of femur820	307	72	235
Intracranial injuries (excluding those with skull fracture)	160	102	58
miliacianiai injunes (excluding those with skull fracture)			
Lacerations and open wounds	171	129	42
,	171 4,419	129 168	42 4,251

 $<sup>{}^{1}\</sup>text{The first-listed diagnoses for females with deliveries is coded V27, shown under "Supplementary classifications."}\\$ 

NOTE: See "Medical coding and edit," in appendix I, for information about changes in coding system and coding modifications for the National Hospital Discharge Survey.

Table 10. Rate of discharges from short-stay hospitals, by sex and first-listed diagnosis: United States, 1993

First-listed diagnosis and ICD-9-CM code	Both sexes	Male	Female	
	Rate of discharges per 10,000 population			
All conditions	1,202.1	984.2	1,407.9	
nfectious and parasitic diseases	31.1	31.3	30.9	
Septicemia	10.5	9.5	11.5	
leoplasms	72.3	60.9	83.2	
Malignant neoplasms	57.8	55.3	60.1	
Malignant neoplasm of large intestine and rectum	6.1	5.9	6.4	
Malignant neoplasm of trachea, bronchus, and lung	7.6	9.2	6.1	
Malignant neoplasm of breast	6.6	*	12.7	
Benign neoplasms and neoplasms of uncertain behavior and unspecified nature210–229,235–239	14.5	5.5	23.1	
	47.2	38.5	55.4	
ndocrine, nutritional and metabolic diseases, and immunity disorders	18.1	17.0	19.1	
Diabetes mellitus	13.5	10.4	16.5	
Volume depletion				
iseases of the blood and blood-forming organs	12.7	11.9	13.5	
lental disorders	71.3	77.0	65.9	
Psychoses	41.1	40.1	42.0	
Alcohol dependence syndrome	9.8	15.5	4.5	
iseases of the nervous system and sense organs	26.5	25.0	28.0	
Diseases of the central nervous system	10.8	9.6	12.1	
Diseases of the ear and mastoid process	4.6	4.7	4.5	
·				
iseases of the circulatory system	219.6	231.6	208.4	
Heart disease	154.1	166.8	142.1	
Acute myocardial infarction	29.0	34.9	23.5	
Coronary atherosclerosis	19.2	25.9	12.9	
Other ischemic heart disease	32.8	35.9	29.9	
Cardiac dysrhythmias	21.4	21.5	21.4	
Congestive heart failure	34.1	31.6	36.5	
Cerebrovascular disease	32.8	30.9	34.6	
iseases of the respiratory system	122.5	122.6	122.4	
Acute respiratory infections	15.6	16.4	14.9	
Chronic disease of tonsils and adenoids	1.4	1.3	1.5	
Pneumonia	46.2	48.0	44.5	
Asthma	18.3	15.3	21.1	
iseases of the digestive system	120.1	109.0	130.5	
Ulcers of the stomach and small intestine	8.4	9.1	7.7	
Appendicitis	8.7	10.5	7.0	
Inguinal hernia	3.3	6.1	*0.6	
Noninfectious enteritis and colitis	13.7	11.1	16.0	
Cholelithiasis	18.6	10.8	25.9	
iseases of the genitourinary system	74.7	53.2	95.0	
Calculus of kidney and ureter	8.8	11.5	6.2	
Hyperplasia of prostate	7.2	14.8		
omplications of pregnancy, childbirth, and the puerperium <sup>1</sup>	23.2		45.1	
Abortions and ectopic and molar pregnancies	5.2		10.1	
iseases of the skin and subcutaneous tissue	17.6	17.2	18.0	
Cellulitis and abscess	11.8	11.9	11.8	
iseases of the musculoskeletal system and connective tissue	60.9	55.1	66.3	
Arthropathies and related disorders	21.1	17.3	24.7	
Intervertebral disc disorders	15.3	17.6	13.0	
ongenital anomalies	5.9	6.5	5.2	
ertain conditions originating in the perinatal period	5.4	6.5	4.4	
ymptoms, signs, and ill-defined conditions	12.7	12.3	13.2	
jury and poisoning	106.0	112.0	100.4	
Fractures, all sites	39.7	35.3	43.8	
Fracture of neck of femur820	12.0	5.8	17.8	
Intracranial injuries (excluding those with skull fracture)	6.2	8.2	4.4	
Lacerations and open wounds	6.7	10.4	3.2	
Education and open wounds				
upplementary classifications	172.3	13.5	322.4	

<sup>&</sup>lt;sup>1</sup>The first-listed diagnoses for females with deliveries is coded V27, shown under "Supplementary classifications."

Table 11. Average length of stay for discharges from short-stay hospitals, by sex and first-listed diagnosis: United States, 1993

First-listed diagnosis and ICD-9-CM code	Both sexes	Male	Female		
	Average length of stay in days				
All conditions	6.0	6.5	5.6		
nfectious and parasitic diseases	7.9	8.4	7.5		
Septicemia	10.6	10.9	10.3		
·					
eoplasms	7.4	8.3	6.7		
Malignant neoplasms	8.1	8.5	7.7		
Malignant neoplasm of large intestine and rectum	11.0	10.5	11.4		
Malignant neoplasm of trachea, bronchus, and lung	8.7	8.4	9.0		
Malignant neoplasm of breast	3.7		3.7		
Benign neoplasms and neoplasms of uncertain behavior and unspecified nature210–229,235–239	4.5	5.9	4.1		
ndocrine, nutritional and metabolic diseases, and immunity disorders	6.6	6.4	6.7		
Diabetes mellitus	7.5	7.2	7.7		
Volume depletion	5.9	5.5	6.2		
iseases of the blood and blood-forming organs	5.8	5.7	5.9		
ental disorders	10.3	9.8	10.8		
Psychoses	12.0	11.6	12.3		
Alcohol dependence syndrome	8.5	8.2	9.3		
seases of the nervous system and sense organs	5.4	5.7	5.3		
Diseases of the central nervous system	8.5	9.1	8.1		
Diseases of the ear and mastoid process	3.1	2.5	3.7		
seases of the circulatory system	6.7	6.3	7.0		
Heart disease	6.3	6.0	6.6		
Acute myocardial infarction	7.4	7.0	7.8		
Coronary atherosclerosis	6.0	5.6	6.7		
Other ischemic heart disease	4.5	4.5	4.6		
Cardiac dysrhythmias	4.8	5.0	4.7		
Congestive heart failure	7.5	7.0	7.9		
Cerebrovascular disease	8.4	8.1	8.7		
iseases of the respiratory system	6.7	6.5	7.0		
Acute respiratory infections	4.0	3.6	4.4		
Chronic disease of tonsils and adenoids	1.3	1.2	1.3		
Pneumonia	7.8	7.6	8.0		
Asthma	4.4	3.8	4.9		
seases of the digestive system	5.7	5.6	5.7		
Ulcers of the stomach and small intestine	6.7	6.5	6.8		
Appendicitis	4.5	4.6	4.3		
Inguinal hernia	2.7	2.6	*		
Noninfectious enteritis and colitis	4.8	4.6	5.0		
Cholelithiasis	4.2	4.6	4.1		
seases of the genitourinary system	4.5	4.7	4.4		
Calculus of kidney and ureter	2.9	2.8	3.2		
Hyperplasia of prostate	3.8	3.8			
• •		0.0	• • •		
omplications of pregnancy, childbirth, and the puerperium <sup>1</sup>	2.6		2.6		
Abortions and ectopic and molar pregnancies	2.0		2.0		
seases of the skin and subcutaneous tissue	7.6	7.9	7.3		
Cellulitis and abscess	6.6	6.7	6.4		
seases of the musculoskeletal system and connective tissue	5.8	5.1	6.4		
Arthropathies and related disorders	6.8	6.0	7.4		
Intervertebral disc disorders	4.0	3.6	7.4 4.5		
ongenital anomalies	6.7	6.1	7.3		
ertain conditions originating in the perinatal period	11.3	11.3	11.3		
mptoms, signs, and ill-defined conditions	2.8	2.7	2.8		
jury and poisoning	6.4	5.8	6.9		
Fractures, all sites	7.5	6.7	8.0		
Fracture of neck of femur	10.3	10.5	10.2		
Intracranial injuries (excluding those with skull fracture)	7.3	7.1	7.5		
Lacerations and open wounds	3.7	3.5	4.2		
upplementary classifications	2.9	8.3	2.7		
	2.4		2.4		

<sup>&</sup>lt;sup>1</sup>The first-listed diagnoses for females with deliveries is coded V27, shown under "Supplementary classifications."

NOTE: See "Medical coding and edit," in appendix I, for information about changes in coding system and coding modifications for the National Hospital Discharge Survey.

Table 12. Number of discharges from short-stay hospitals, by race and first-listed diagnosis: United States, 1993

First-listed diagnosis and ICD-9-CM code	All races	White	Black	All other	Not stated
		Number of d	lischarges in	thousands	
All conditions	30,825	20,101	3,660	1,253	5,812
Infectious and parasitic diseases	797	478	131	34	154
Septicemia	270	177	36	10	47
Neoplasms	1,855	1,312	194	64	285
Malignant neoplasms	1,482	1,070	143	46	223
Malignant neoplasm of large intestine and rectum	157	112	16	*6	22
Malignant neoplasm of trachea, bronchus, and lung	194	149	16	*	25
Malignant neoplasm of breast	168	117	17	*	30
Benign neoplasms and neoplasms of uncertain behavior and unspecified nature210–229,235–239	373	242	51	17	63
Endocrine, nutritional and metabolic diseases, and immunity disorders	1,210	753	196	39	223
Diabetes mellitus	464	262	103	15	84
Volume depletion	347	229	42	*8	68
Diseases of the blood and blood-forming organs	327	183	76	18	50
Mental disorders	1,827	1,127	250	52	398
Psychoses	1,054	696	133	38	188
Alcohol dependence syndrome	252	129	37		81
Diseases of the nervous system and sense organs	681	468	77	18	118
Diseases of the central nervous system	278	180	41	*8	49
Diseases of the ear and mastoid process	118	81	10	*	22
Diseases of the circulatory system	5,633	3,965	580	157	930
Heart disease	3,951	2,838	354	110	648
Acute myocardial infarction	745	553	50	22	120
Coronary atherosclerosis	492	358	29	15	90
Other ischemic heart disease	842 549	620 402	67 39	26 12	129 97
Cardiac dysrhythmias	875	611	106	18	139
Cerebrovascular disease	841	577	97	25	142
Diseases of the respiratory system	3,142 400	2,004 237	404 60	110 18	624 86
Acute respiratory infections	37	25 <i>1</i> 25	*	*	*6
Pneumonia	1,184	756	143	38	247
Asthma	468	246	103	22	98
Diseases of the digestive system	3,079	2,075	313	98	594
Ulcers of the stomach and small intestine	216	142	20	9	44
Appendicitis	223	136	15	15	56
Inguinal hernia	83	61	*	*	14
Noninfectious enteritis and colitis	350	238	40	*8	64
Cholelithiasis	476	323	40	19	94
Diseases of the genitourinary system	1,915	1,320	185	60	351
Calculus of kidney and ureter	225	169	*7	*6	43
Hyperplasia of prostate	185	126	11	*7	41
Complications of pregnancy, childbirth, and the puerperium <sup>1</sup>	594	296	126	42	130
Abortions and ectopic and molar pregnancies	133	64	38	*7	24
Diseases of the skin and subcutaneous tissue	451	287	74	15	
Cellulitis and abscess	304	287 196	74 44	15 10	75 53
Diseases of the musculoskeletal system and connective tissue	1,561	1,136	113	33	278
Arthropathies and related disorders	541	395	39	11	96 61
Intervertebral disc disorders	391	299	21	9	61
Congenital anomalies	150	93	13	*6	39
Certain conditions originating in the perinatal period	139	77	16	9	37
Symptoms, signs, and ill-defined conditions	327	198	41	13	75
Injury and poisoning	2,718	1,813	316	103	486
Fractures, all sites	1,017	713	94	32	179
Fracture of neck of femur	307	235	12	*9	51
	160	111	15	*6	28
Intracranial injuries (excluding those with skull fracture)					
Intracranial injuries (excluding those with skull fracture)	171	91	46	*8	26
	171 4,419	91 2,517	46 555	*8 382	26 964

<sup>&</sup>lt;sup>1</sup>The first-listed diagnoses for females with deliveries is coded V27, shown under "Supplementary classifications."

Table 13. Rate of discharges from short-stay hospitals, by race and first-listed diagnosis: United States, 1993

First-listed diagnosis and ICD-9-CM code	All races	White	Black	All other	Not stated
	R	ate of discha	arges per 10,0	000 population	1
All conditions	1,202.1	941.0	1,147.7	1,146.4	
nfectious and parasitic diseases	31.1	22.4	41.1	30.7	
Septicemia	10.5	8.3	11.4	9.3	
Neoplasms	72.3	61.4	60.8	58.2	
Malignant neoplasms	57.8	50.1	44.8	42.5	
Malignant neoplasm of large intestine and rectum	6.1	5.3	5.2	*5.5	
Malignant neoplasm of trachea, bronchus, and lung	7.6	7.0	5.1	*	
Malignant neoplasm of breast	6.6	5.5	5.4	*	
Benign neoplasms and neoplasms of uncertain behavior and unspecified nature210–229,235–239	14.5	11.3	16.0	15.7	
Endocrine, nutritional and metabolic diseases, and immunity disorders	47.2	35.2	61.4	35.4	
Diabetes mellitus	18.1	12.3	32.3	13.8	
Volume depletion	13.5	10.7	13.2	*7.5	
·					
Diseases of the blood and blood-forming organs	12.7	8.6	23.8	16.6	
Mental disorders	71.3	52.8	78.4	47.8	
Psychoses	41.1	32.6	41.6	34.8	
Alcohol dependence syndrome	9.8	6.1	11.7	*	
Diseases of the nervous system and sense organs	26.5	21.9	24.0	16.5	
Diseases of the central nervous system	10.8	8.4	12.8	*7.7	
Diseases of the ear and mastoid process	4.6	3.8	3.3	*	
Diseases of the circulatory system	219.6	185.6	182.0	143.9	
Heart disease	154.1	132.9	111.2	100.5	
Acute myocardial infarction	29.0	25.9	15.6	20.1	
Coronary atherosclerosis	19.2	16.8	9.2	13.6	
Other ischemic heart disease	32.8	29.0	21.1	23.4	
Cardiac dysrhythmias	21.4	18.8	12.1	11.1	
Congestive heart failure	34.1	28.6	33.3	16.8	
Cerebrovascular disease	32.8	27.0	30.5	22.6	
Diseases of the respiratory system	122.5	93.8	126.6	100.4	
Acute respiratory infections	15.6	11.1	18.7	16.0	
Chronic disease of tonsils and adenoids	1.4	1.2	*	*	
Pneumonia	46.2	35.4	44.9	35.1	
Asthma	18.3	11.5	32.2	19.8	
Diseases of the digestive system	120.1	97.1	98.0	89.3	
Ulcers of the stomach and small intestine	8.4	6.7	6.2	8.6	• • •
Appendicitis	8.7	6.4	4.8	13.8	
Inguinal hernia	3.3	2.9	*	13.6	
Noninfectious enteritis and colitis	13.7	11.1	12.6	*7.1	
Cholelithiasis	18.6	15.1	12.4	17.6	
Diseases of the genitourinary system	74.7	61.8	58.0	54.7	
Calculus of kidney and ureter	8.8	7.9	*2.1	*5.3	
Hyperplasia of prostate	7.2	5.9	3.4	*6.3	
Complications of pregnancy, childbirth, and the puerperium <sup>1</sup>	23.2	13.8	39.6	38.4	
Abortions and ectopic and molar pregnancies	5.2	3.0	11.8	*6.5	
Diseases of the skin and subcutaneous tissue	17.6	13.4	23.2	13.9	
Cellulitis and abscess	11.8	9.2	13.8	9.2	
Diseases of the musculoskeletal system and connective tissue	60.9	53.2	35.6	30.4	
Arthropathies and related disorders	21.1	18.5	12.3	10.1	
Intervertebral disc disorders	15.3	14.0	6.6	8.5	
ongenital anomalies	5.9	4.3	4.0	*5.6	
Sertain conditions originating in the perinatal period	5.4	3.6	5.1	8.5	
ymptoms, signs, and ill-defined conditions	12.7	9.3	12.9	12.1	
njury and poisoning	106.0	84.9	99.1	94.0	
Fractures, all sites	39.7	33.4	29.4	29.0	
Fracture of neck of femur820	12.0	11.0	3.8	*8.1	
Intracranial injuries (excluding those with skull fracture)	6.2	5.2	4.8	*5.4	
Lacerations and open wounds	6.7	4.3	14.5	*6.9	
Supplementary classifications	172.3	117.8	174.2	350.0	
Females with deliveries	156.6	105.7	160.0	323.7	

<sup>&</sup>lt;sup>1</sup>The first-listed diagnoses for females with deliveries is coded V27, shown under "Supplementary classifications."

NOTE: See "Medical coding and edit," in appendix I, for information about changes in coding system and coding modifications for the National Hospital Discharge Survey. Rates for race categories may be underestimated because race was not reported for all discharges.

Table 14. Average length of stay for discharges from short-stay hospitals, by race and first-listed diagnosis: United States, 1993

First-listed diagnosis and ICD-9-CM code	All races	White	Black	All other	Not stated
		Average	length of sta	y in days	
All conditions	6.0	6.0	6.4	5.5	5.6
Infectious and parasitic diseases	7.9	7.7	9.3	7.1	7.6
Septicemia	10.6	10.6	11.8	9.5	9.7
Neoplasms	7.4	7.3	8.5	7.4	6.8
Malignant neoplasms	8.1	7.9	9.7	8.8	7.6
Malignant neoplasm of large intestine and rectum	11.0	11.1	12.1	*9.8	10.2
Malignant neoplasm of trachea, bronchus, and lung	8.7	8.7	8.9	*	8.3
Malignant neoplasm of breast	3.7	3.4	5.8	*	3.8
Benign neoplasms and neoplasms of uncertain behavior and unspecified nature210–229,235–239	4.5	4.5	4.9	3.7	4.1
Endocrine, nutritional and metabolic diseases, and immunity disorders	6.6	6.6	6.7	5.3	6.7
Diabetes mellitus	7.5 5.9	7.5 5.8	7.3 5.4	6.5 *4.8	7.8 6.7
Volume depletion					
Diseases of the blood and blood-forming organs	5.8	5.6	6.5	4.5	5.9
Mental disorders	10.3	10.5	9.9	13.4	9.6
Psychoses	12.0	11.9	12.3	15.6 *	11.4
Alcohol dependence syndrome	8.5	8.5	7.2		9.0
Diseases of the nervous system and sense organs	5.4	5.3	6.6	6.1	5.0
Diseases of the central nervous system	8.5	8.9	9.4	*6.5 *	6.7
Diseases of the ear and mastoid process	3.1	2.6	3.8		4.9
Diseases of the circulatory system	6.7	6.6	7.2	7.4	6.3
Heart disease	6.3 7.4	6.3 7.4	6.7 7.5	6.8 9.8	6.0 6.9
Acute myocardial infarction	6.0	7. <del>4</del> 5.9	7.5 5.8	9.6 5.6	6.7
Other ischemic heart disease	4.5	4.6	4.8	4.4	4.2
Cardiac dysrhythmias	4.8	4.8	5.1	4.5	4.8
Congestive heart failure	7.5	7.7	7.5	6.7	6.8
Cerebrovascular disease	8.4	8.2	9.6	10.4	7.9
Diseases of the respiratory system	6.7	6.9	6.4	7.1	6.4
Acute respiratory infections	4.0	3.9	3.6	5.1	4.4
Chronic disease of tonsils and adenoids	1.3	1.1	*	*	*1.7
Pneumonia	7.8	7.9	7.9	8.0	7.5
Asthma	4.4	4.6	4.5	3.9	4.2
Diseases of the digestive system	5.7	5.6	6.8	5.5	5.3
Ulcers of the stomach and small intestine	6.7	6.5	8.1	6.9	6.4
Appendicitis.       .540–543         Inquinal hernia.       .550	4.5 2.7	4.4 2.7	6.8	3.8	4.3 2.9
Noninfectious enteritis and colitis	4.8	4.9	5.1	*6.5	4.1
Cholelithiasis	4.2	4.2	4.6	3.8	4.3
Diseases of the genitourinary system	4.5	4.4	5.5	4.6	4.3
Calculus of kidney and ureter	2.9	2.7	*3.3	*3.7	3.6
Hyperplasia of prostate	3.8	3.8	4.5	*4.1	3.6
Complications of pregnancy, childbirth, and the puerperium <sup>1</sup>	2.6	2.4	3.1	2.8	2.3
Abortions and ectopic and molar pregnancies	2.0	1.8	2.3	*2.3	1.6
Diseases of the skin and subcutaneous tissue	7.6	7.3	9.7	6.8	6.6
Cellulitis and abscess	6.6	6.5	7.7	5.6	6.0
Diseases of the musculoskeletal system and connective tissue	5.8	5.8	7.1	5.3	5.4
Arthropathies and related disorders	6.8	6.9	8.1	5.7	6.1
Intervertebral disc disorders	4.0	3.9	4.8	3.5	4.1
Congenital anomalies	6.7	5.0	6.4	*6.1	10.8
Certain conditions originating in the perinatal period	11.3	9.7	14.1	10.9	13.5
	2.8		2.9		
Symptoms, signs, and ill-defined conditions		2.6		2.4	3.2
Injury and poisoning	6.4	6.6	6.3	6.9	5.5
Fractures, all sites	7.5 10.3	7.8 10.6	7.5 9.6	6.1 *9.0	6.4 8.9
Intracranial injuries (excluding those with skull fracture)	7.3	8.1	5.7	*4.3	5.4
. , ,	3.7	3.6	4.1	*2.6	3.3
Lacerations and open wounds					
Supplementary classifications	2.9	3.0	3.1	2.7	2.8

<sup>&</sup>lt;sup>1</sup>The first-listed diagnoses for females with deliveries is coded V27, shown under "Supplementary classifications."

Table 15. Number of discharges from short-stay hospitals, by geographic region and first-listed diagnosis: United States, 1993

First-listed diagnosis and ICD-9-CM code	United States	North- east	Midwest	South	West
		Number of	discharges in t	housands	
All conditions	30,825	6,965	7,097	11,580	5,183
Infectious and parasitic diseases	797	181	167	311	139
Septicemia	270	54	59	112	45
Neoplasms	1,855	473	389	702	291
Malignant neoplasms	1,482	373	319	556	233
Malignant neoplasm of large intestine and rectum	157	36	36	57	28
Malignant neoplasm of trachea, bronchus, and lung	194	53	45	76	20
Malignant neoplasm of breast	168	39	38	64	27
Benign neoplasms and neoplasms of uncertain behavior and unspecified nature210-229,235-239	373	100	69	146	58
Endocrine, nutritional and metabolic diseases, and immunity disorders	1,210	264	289	494	163
Diabetes mellitus	464	98	100	199	67
Volume depletion	347	78	89	139	41
Diseases of the blood and blood-forming organs	327	71	80	119	56
Mental disorders	1,827	556	501	534	236
Psychoses	1,054	319	275	313	147
Alcohol dependence syndrome	252	67	85	75	26
Diseases of the nervous system and sense organs	681	189	127	274	90
Diseases of the central nervous system	278	62	72	94	50
Diseases of the ear and mastoid process	118	32	27	44	14
Diseases of the circulatory system	5,633	1,335	1,372	2,112	813
Heart disease	3,951	960	955	1,466	570
Acute myocardial infarction	745	175	192	266	111
Coronary atherosclerosis	492	120	117	176	80
Other ischemic heart disease	842	223	178	301	142
Cardiac dysrhythmias	549	133	136	209	71
Congestive heart failure	875	198	229	348	101
Cerebrovascular disease	841	181	210	329	122
Diseases of the respiratory system	3,142	672	765	1,224	481
Acute respiratory infections	400	72	110	167	52
Chronic disease of tonsils and adenoids	37	18	*	9	*7
Pneumonia	1,184	219	306	466	193
Asthma	468	133	105	157	74
Diseases of the digestive system	3,079	718	706	1,177	479
Ulcers of the stomach and small intestine	216	40	59	78	39
Appendicitis	223	40	54	77	52
Inguinal hernia	83	31	20	24	*9
Noninfectious enteritis and colitis	350 476	74 116	73 104	155 180	47 75
Cholelithiasis					
Diseases of the genitourinary system	1,915	400	427	800	289
Calculus of kidney and ureter	225	46	55	101	23
Hyperplasia of prostate	185	46	44	63	32
Complications of pregnancy, childbirth, and the puerperium <sup>1</sup>	594	145	113	228	109
Abortions and ectopic and molar pregnancies	133	41	23	47	22
Diseases of the skin and subcutaneous tissue	451	124	106	155	67
Cellulitis and abscess	304	86	72	96	50
Diseases of the musculoskeletal system and connective tissue	1,561	345	386	566	264
Arthropathies and related disorders	541	122	158	160	100
Intervertebral disc disorders	391	81	82	180	48
Congenital anomalies	150	50	25	41	35
Certain conditions originating in the perinatal period	139	20	25	57	36
Symptoms, signs, and ill-defined conditions	327	76	60	139	52
Injury and poisoning	2,718	582	621	992	524
Fractures, all sites	1,017	201	239	382	195
Fracture of neck of femur	307	58	74	114	62
Intracranial injuries (excluding those with skull fracture)	160	31	39	54	36
Lacerations and open wounds	171	36	33	76	27
Supplementary classifications	4,419	765	938	1,655	1,060

 $<sup>^{1}</sup>$ The first-listed diagnoses for females with deliveries is coded V27, shown under "Supplementary classifications."

Table 16. Rate of discharges from short-stay hospitals, by geographic region and first-listed diagnosis: United States, 1993

First-listed diagnosis and ICD-9-CM code	United States	North- east	Midwest	South	West
	ı	Rate of discha	rges per 10,00	0 population	
All conditions	1,202.1	1,358.4	1,164.2	1,306.3	932.9
Infectious and parasitic diseases	31.1	35.3	27.4	35.0	24.9
Septicemia	10.5	10.6	9.6	12.6	8.1
Neoplasms	72.3	92.4	63.7	79.2	52.4
Malignant neoplasms	57.8	72.8	52.4	62.7	42.0
Malignant neoplasm of large intestine and rectum	6.1	7.1	5.9	6.4	5.0
Malignant neoplasm of trachea, bronchus, and lung	7.6	10.4	7.4	8.5	3.6
Malignant neoplasm of breast	6.6	7.7	6.3	7.2	4.8
Benign neoplasms and neoplasms of uncertain behavior and unspecified nature210–229,235–239	14.5	19.5	11.4	16.5	10.4
Endocrine, nutritional and metabolic diseases, and immunity disorders	47.2	51.4	47.4	55.7	29.4
Diabetes mellitus	18.1	19.2	16.4	22.4	12.0
Volume depletion	13.5	15.2	14.6	15.7	7.4
Diseases of the blood and blood-forming organs	12.7	13.9	13.1	13.5	10.1
Mental disorders	71.3	108.4	82.2	60.2	42.5
Psychoses	41.1	62.2	45.1	35.3	26.5
Alcohol dependence syndrome	9.8	13.0	13.9	8.5	4.6
Diseases of the nervous system and sense organs	26.5	36.8	20.9	31.0	16.2
Diseases of the central nervous system	10.8 4.6	12.1 6.3	11.9 4.5	10.6 4.9	9.0 2.6
Diseases of the circulatory system	219.6	260.3	225.1	238.2	146.4
Heart disease	154.1	187.3	156.6	236.2 165.4	102.5
Acute myocardial infarction	29.0	34.2	31.5	30.1	20.0
Coronary atherosclerosis	19.2	23.5	19.1	19.8	14.3
Other ischemic heart disease	32.8	43.4	29.1	33.9	25.5
Cardiac dysrhythmias	21.4	25.9	22.3	23.6	12.8
Congestive heart failure	34.1	38.5	37.5	39.3	18.2
Cerebrovascular disease	32.8	35.2	34.4	37.1	22.0
Diseases of the respiratory system	122.5	131.0	125.5	138.1	86.6
Acute respiratory infections	15.6	14.0	18.1	18.8	9.3
Chronic disease of tonsils and adenoids	1.4	3.5		1.1	*1.3
Pneumonia       .480–486         Asthma       .493	46.2 18.3	42.7 25.9	50.2 17.2	52.6 17.7	34.7 13.3
Diseases of the digestive system	120.1	140.1	115.8	132.7	86.1
Ulcers of the stomach and small intestine	8.4	7.9	9.6	8.8	7.0
Appendicitis	8.7	7.8	8.8	8.7	9.4
Inguinal hernia	3.3	6.0	3.3	2.7	*1.6
Noninfectious enteritis and colitis	13.7	14.4	12.1	17.5	8.5
Cholelithiasis	18.6	22.7	17.1	20.3	13.5
Diseases of the genitourinary system	74.7	78.0	70.0	90.3	51.9
Calculus of kidney and ureter	8.8	9.0	9.1	11.3	4.1
Hyperplasia of prostate	7.2	9.0	7.2	7.1	5.7
Complications of pregnancy, childbirth, and the puerperium <sup>1</sup>	23.2	28.2	18.6	25.7	19.6
Abortions and ectopic and molar pregnancies	5.2	8.0	3.8	5.4	3.9
Diseases of the skin and subcutaneous tissue	17.6	24.1	17.4	17.5	12.1
Cellulitis and abscess	11.8	16.7	11.9	10.8	9.0
Diseases of the musculoskeletal system and connective tissue	60.9	67.4	63.3	63.8	47.5
Arthropathies and related disorders	21.1	23.8	25.9	18.1	18.0
Intervertebral disc disorders	15.3	15.8	13.4	20.3	8.6
Congenital anomalies	5.9	9.7	4.0	4.6	6.2
Certain conditions originating in the perinatal period	5.4	3.9	4.2	6.5	6.5
Symptoms, signs, and ill-defined conditions	12.7	14.7	9.9	15.7	9.3
Injury and poisoning	106.0	113.5	101.8	111.9	94.3
Fractures, all sites	39.7	39.1	39.3	43.1	35.1
Fracture of neck of femur	12.0	11.3	12.1	12.9	11.1
Intracranial injuries (excluding those with skull fracture)	6.2	6.0	6.5	6.1	6.4
Lacerations and open wounds	6.7	7.0	5.4	8.5	4.9
Supplementary classifications	172.3	149.3	153.9	186.7	190.8
Females with deliveries	156.6	127.0	134.2	176.0	177.5

<sup>&</sup>lt;sup>1</sup>The first-listed diagnoses for females with deliveries is coded V27, shown under "Supplementary classifications."

Table 17. Average length of stay for discharges from short-stay hospitals, by geographic region and first-listed diagnosis: United States, 1993

First-listed diagnosis and ICD-9-CM code	United States	North- east	Midwest	South	West
		Average	length of stay	in days	
All conditions	6.0	7.0	6.1	5.7	5.1
Infectious and parasitic diseases	7.9	10.0	7.0	7.9	6.4
Septicemia	10.6	12.3	9.8	10.7	9.1
·					
Neoplasms	7.4	8.4	7.2	7.0	6.6
Malignant neoplasms	8.1	9.5	7.7 10.7	7.7 9.5	7.3 9.3
Malignant neoplasm of large intestine and rectum	11.0 8.7	15.0 9.5	8.2	9.5 8.6	9.3 8.0
Malignant neoplasm of trachea, bronchus, and lung	3.7	9.5 4.7	3.4	3.9	2.3
Benign neoplasms and neoplasms of uncertain behavior and unspecified nature210–229,235–239	4.5	4.7	4.8	4.7	3.7
Endocrine, nutritional and metabolic diseases, and immunity disorders	6.6	8.2	5.7	6.4	5.9
Diabetes mellitus	7.5	8.9	6.2	7.4	7.6
Volume depletion	5.9	8.6	4.9	5.5	4.6
Diseases of the blood and blood-forming organs	5.8	6.6	6.3	5.8	4.1
Mental disorders	10.3	10.4	10.4	10.5	9.4
Psychoses	12.0	12.8	11.6	12.1	10.7
Alcohol dependence syndrome	8.5	6.2	9.8	8.4	10.2
Diseases of the nervous system and sense organs	5.4	4.9	6.7	5.0	6.2
Diseases of the central nervous system	8.5	8.0	8.7	9.1	7.6
Diseases of the ear and mastoid process	3.1	2.5	2.6	3.0	5.8
Diseases of the circulatory system	6.7	7.7	6.6	6.3	5.7
Heart disease	6.3	7.4	6.1	6.0	5.3
Acute myocardial infarction	7.4	8.7	7.1	6.9	6.8
Coronary atherosclerosis	6.0	5.9	6.6	5.9	5.5
Other ischemic heart disease	4.5	5.3	4.3	4.4	4.0
Cardiac dysrhythmias	4.8	5.9	4.4	4.9	3.5
Congestive heart failure	7.5	9.5	7.1	7.0	6.2
Cerebrovascular disease	8.4	9.3	9.0	7.8	7.9
Diseases of the respiratory system	6.7	8.1	6.1	6.6	6.0
Acute respiratory infections	4.0	4.8	3.9	3.9	3.5
Chronic disease of tonsils and adenoids	1.3	1.1	*	1.8	*1.0
Pneumonia	7.8	10.7	6.7	7.7	6.6
Asthma	4.4	4.8	4.1	4.5	4.1
Diseases of the digestive system	5.7	6.3	5.8	5.5	5.1
Ulcers of the stomach and small intestine	6.7	7.2	7.2	6.4	5.9
Appendicitis	4.5	5.3	3.9	4.6	4.1
Inguinal hernia	2.7	2.2	3.3	2.9	*3.0
Noninfectious enteritis and colitis	4.8	6.0	5.1	4.3	4.4
Cholelithiasis	4.2	4.7	4.0	4.2	3.7
Diseases of the genitourinary system	4.5	5.4	4.3	4.4	3.9
Calculus of kidney and ureter	2.9	4.7	2.8	2.3	2.4
Hyperplasia of prostate	3.8	4.3	3.7	3.8	3.2
Complications of pregnancy, childbirth, and the puerperium <sup>1</sup>	2.6	2.7	2.6	2.6	2.5
Abortions and ectopic and molar pregnancies	2.0	1.8	2.1	2.0	2.0
Diseases of the skin and subcutaneous tissue	7.6	8.8	6.8	7.5	6.8
Cellulitis and abscess	6.6	7.8	5.9	6.3	6.0
Diseases of the musculoskeletal system and connective tissue	5.8	6.0	6.4	5.6	5.1
Arthropathies and related disorders	6.8	6.8	7.8	6.8	5.6
Intervertebral disc disorders	4.0	4.3	3.9	3.8	4.3
Congenital anomalies	6.7	5.5	6.9	7.8	6.9
Certain conditions originating in the perinatal period	11.3	9.7	9.2	12.9	11.2
Symptoms, signs, and ill-defined conditions	2.8	3.0	2.3	2.9	2.4
Injury and poisoning	6.4	7.4	6.3	6.1	5.8
Fractures, all sites	7.5	9.4	7.1	7.3	6.4
Fracture of neck of femur	10.3	13.6	9.5	10.1	8.5
Intracranial injuries (excluding those with skull fracture)850–854	7.3	6.2	11.3	5.6	6.4
Lacerations and open wounds	3.7	3.9	4.3	3.5	3.0
·	2.9				
Supplementary classifications		3.6	3.4	2.7	2.4
Females with deliveries	2.4	3.0	2.5	2.4	2.0

<sup>&</sup>lt;sup>1</sup>The first-listed diagnoses for females with deliveries is coded V27, shown under "Supplementary classifications."

Table 18. Number of all-listed diagnoses for discharges from short-stay hospitals, by age and diagnosis: United States, 1993

All-listed diagnosis and ICD-9-CM code	All ages	Under 15 years	15–44 years	45–64 years	65 years and over
	Number of all-listed diagnoses in thousands				
All conditions	112,793	5,121	32,227	23,326	52,117
Infectious and parasitic diseases	3,208	411	975	544	1,277
Septicemia	551	38	79	99	335
Neoplasms	4,358	77	676	1,329	2,276
Malignant neoplasms	3,487	64	349	1,069	2,006
Malignant neoplasm of large intestine and rectum	238	*	10	70	158
Malignant neoplasm of trachea, bronchus, and lung	490 239	*	23 44	175 84	290 110
Benign neoplasms and neoplasms of uncertain behavior and unspecified nature210–229,235–239	872	14	327	261	271
Endocrine, nutritional and metabolic diseases, and immunity disorders	11,140	381	1,613	2,971	6,175
Diabetes mellitus	3,670	19	430	1,142	2,079
Volume depletion	1,538	221	286	229	802
Diseases of the blood and blood-forming organs	3,553	160	890	736	1,766
Mental disorders	6,297	188	3,026	1,344	1,739
Psychoses	2,219	37	806	427	948
Alcohol dependence syndrome	758	*	449	223	84
Diseases of the nervous system and sense organs	3,412	415	680	685	1,632
Diseases of the central nervous system	1,580	89	324	305	862
Diseases of the ear and mastoid process	504	268	60	58	118
Diseases of the circulatory system	23,821 15,041	112 73	1,427 706	5,688 3,399	16,594 10,862
Acute myocardial infarction	840	*	50	274	514
Coronary atherosclerosis	2,601	*	91	701	1,809
Other ischemic heart disease	2,883	*	110	857	1,913
Cardiac dysrhythmias	3,017	23	150	512	2,331
Congestive heart failure	2,515	20	63	408	2,024
Cerebrovascular disease	1,766	*7	64	329	1,365
Diseases of the respiratory system	8,693 826	1,061 332	1,202 169	1,778 118	4,652 207
Chronic disease of tonsils and adenoids	58	42	13	*	*
Pneumonia	1,802	273	232	308	990
Asthma	1,000	229	283	219	268
Diseases of the digestive system	7,878	377	1,827	2,036	3,637
Ulcers of the stomach and small intestine	523	*	80	145	295
Appendicitis	263	53 47	151 21	36 33	23 75
Inguinal hernia	146 761	17 146	215	139	261
Cholelithiasis	749	*	218	207	322
Diseases of the genitourinary system	6,982	138	2,214	1,525	3,104
Calculus of kidney and ureter	302	*	131	101	70
Hyperplasia of prostate	375	*	*	77	295
Complications of pregnancy, childbirth, and the puerperium	7,797	24	7,768	*	
Abortions and ectopic and molar pregnancies	151	*	150	*	
Diseases of the skin and subcutaneous tissue	1,402	112	307	306	677
Cellulitis and abscess	571	34	145	141	250
Diseases of the musculoskeletal system and connective tissue	4,319	61	882	1,028	2,348
Arthropathies and related disorders	1,818	21	244	365	1,189
Intervertebral disc disorders	535		242	183	110
Congenital anomalies	517	268	126	60	62
Certain conditions originating in the perinatal period	354	339	*9	*	*
Symptoms, signs, and ill-defined conditions	5,436	414	1,336	1,325	2,361
Injury and poisoning	6,014	423	2,216	1,199	2,175
Fractures, all sites	1,534	99	499	228	708
Fracture of neck of femur	336 220	37	10 101	24 32	299 49
	220	31	101	32	49
, , ,	545	44	327	81	94
Lacerations and open wounds	545 7,613	44 159	327 5,054	81 762	94 1,638

Table 19. Number of all-listed diagnoses for discharges from short-stay hospitals, by sex and diagnosis: United States, 1993

All-listed diagnosis and ICD-9-CM code	Both sexes	Male	Female
	Number of all-	-listed diagnoses in	thousands
Il conditions	112,793	45,658	67,135
nfectious and parasitic diseases	3,208	1,416	1,792
Septicemia	551	251	300
eoplasms	4,358	1,877	2,482
Malignant neoplasms	3,487	1,677	1,810
Malignant neoplasm of large intestine and rectum	238	105	133
Malignant neoplasm of trachea, bronchus, and lung	490	276	214
Malignant neoplasm of breast	239	*	238
Benign neoplasms and neoplasms of uncertain behavior and unspecified nature210–229,235–239	872	200	672
ndocrine, nutritional and metabolic diseases, and immunity disorders	11,140	4,608	6,532
Diabetes mellitus	3,670	1,658	2,012
Volume depletion	1,538	628	909
iseases of the blood and blood-forming organs	3,553	1,420	2,132
lental disorders	6,297	3,200	3,097
Psychoses	2,219	1,009	1,210
Alcohol dependence syndrome	758	574	185
iseases of the nervous system and sense organs	3,412	1,609	1,803
Diseases of the central nervous system	1,580	718	862
Diseases of the ear and mastoid process	504	270	234
iseases of the circulatory system	23,821	11,549	12,272
Heart disease	15,041	7,540	7,500
Acute myocardial infarction	840	483	357
Coronary atherosclerosis	2,601	1,447	1,154
Other ischemic heart disease	2,883	1,571	1,312
Cardiac dysrhythmias	3,017	1,495	1,522
Congestive heart failure	2,515	1,103	1,412
Cerebrovascular disease.         .430–438	1,766	818	948
iseases of the respiratory system	8,693	4,297	4,396
Acute respiratory infections	826	392	434
Chronic disease of tonsils and adenoids	58	28	30
Pneumonia	1,802	928	874
Asthma	1,000	390	610
seases of the digestive system	7,878	3,443	4,435
Ulcers of the stomach and small intestine	523	262	260
Appendicitis	263	144	119
Inguinal hernia	146	129	17
Noninfectious enteritis and colitis	761	308	453
Cholelithiasis	749	236	513
iseases of the genitourinary system	6,982	2,390	4,592
Calculus of kidney and ureter	302	180	123
Hyperplasia of prostate	375	375	
		0/0	7.707
omplications of pregnancy, childbirth, and the puerperium	7,797		7,797
Abortions and ectopic and molar pregnancies	151		151
iseases of the skin and subcutaneous tissue	1,402	654	748
Cellulitis and abscess	571	276	295
iseases of the musculoskeletal system and connective tissue	4,319	1,623	2,695
Arthropathies and related disorders	1,818	619	1,199
Intervertebral disc disorders	535	285	250
ongenital anomalies	517	247	270
ertain conditions originating in the perinatal period	354	207	147
/mptoms, signs, and ill-defined conditions	5,436	2,551	2,885
jury and poisoning	6,014	3,164	2,850
Fractures, all sites	1,534	701	833
Fracture of neck of femur	336	81	255
Intracranial injuries (excluding those with skull fracture)	220	139	81
Lacerations and open wounds	545	376	170
upplementary classifications	7,613	1,402	6,211
Females with deliveries	4,015		4,015

Table 20. Number of all-listed diagnoses for discharges from short-stay hospitals, by race and diagnosis: United States, 1993

All-listed diagnosis and ICD-9-CM code	All races	White	Black	All other	Not stated
	Nu	mber of all-lis	ted diagnose	s in thousan	ıds
All conditions	112,793	75,884	13,380	4,133	19,395
Infectious and parasitic diseases	3,208	1,978	568	121	540
Septicemia	551	362	84	21	84
Neoplasms	4,358	3,132	441	133	653
Malignant neoplasms	3,487	2,540	329	101	516
Malignant neoplasm of large intestine and rectum	238	171	23	*9	35
Malignant neoplasm of trachea, bronchus, and lung	490 239	376 167	37 24	11 *6	66 42
Malignant neoplasm of breast	872	592	112	32	136
Endocrine, nutritional and metabolic diseases, and immunity disorders	11,140	7,468	1,476	355	1,841
Diabetes mellitus	3,670	2,356	548	139	627
Volume depletion	1,538	1,026	201	45	266
Diseases of the blood and blood-forming organs	3,553	2,258	573	155	567
Mental disorders	6,297	4,012	879	170	1,236
Psychoses	2,219	1,497	264	67	391
Alcohol dependence syndrome	758	386	153	22	196
Diseases of the nervous system and sense organs	3,412	2,317	400	98	597
Diseases of the central nervous system	1,580	1,089	193	45	253
Diseases of the ear and mastoid process	504	304	62	19	119
Diseases of the circulatory system	23,821	17,112	2,419	644	3,647
Heart disease	15,041 840	11,072 620	1,270 55	380 24	2,318 140
Coronary atherosclerosis	2,601	1,994	154	71	382
Other ischemic heart disease	2,883	2,162	207	67	446
Cardiac dysrhythmias	3,017	2,228	234	76	479
Congestive heart failure	2,515	1,779	258	54	423
Cerebrovascular disease	1,766	1,241	196	53	276
Diseases of the respiratory system	8,693	5,924	967	253	1,550
Acute respiratory infections	826 58	515 39	116 *7	30 *	166 9
Pneumonia	1,802	1,165	226	61	350
Asthma	1,000	576	187	40	197
Diseases of the digestive system	7,878	5,444	824	238	1,372
Ulcers of the stomach and small intestine	523	346	56	21	100
Appendicitis	263	167	17	16 *	62
Inguinal hernia	146 761	106 523	9 90	18	27 130
Cholelithiasis	749	523 514	90 65	32	130 138
Diseases of the genitourinary system	6,982	4,805	782	245	1,150
Calculus of kidney and ureter	302	222	11	11	58
Hyperplasia of prostate	375	268	25	11	72
Complications of pregnancy, childbirth, and the puerperium	7,797	4,330	1,152	635	1,680
Abortions and ectopic and molar pregnancies	151	74	41	*8	28
Diseases of the skin and subcutaneous tissue	1,402	920	204	47	230
Cellulitis and abscess	571	371	79	19	101
Diseases of the musculoskeletal system and connective tissue	4,319	3,184	331	82	721
Arthropathies and related disorders	1,818	1,330	160	36	293
Intervertebral disc disorders	535	409	29	12	84
Congenital anomalies	517	338	50	18	111
Certain conditions originating in the perinatal period	354	182	55	23	94
Symptoms, signs, and ill-defined conditions	5,436	3,609	676	200	951
Injury and poisoning	6,014	4,092	686	216	1,021
Fractures, all sites	1,534	1,092	146	43	254
Fracture of neck of femur	336	259	13	10 *9	55
Intracranial injuries (excluding those with skull fracture)	220 545	151 331	24 107	*8 27	38 81
Supplementary classifications	7,613 4,015	4,783 2,257	897 510	500 354	1,434
Females with deliveries	4,015	2,257	510	354	894

Table 21. Number of all-listed diagnoses for discharges from short-stay hospitals, by geographic region and diagnosis: United States, 1993

All-listed diagnosis and ICD-9-CM code	United States	North- east	Midwest	South	West
	Nu	mber of all-li	sted diagnose	s in thousand	ds
All conditions	112,793	26,765	27,107	40,944	17,977
Infectious and parasitic diseases	3,208	806	717	1,169	516
Septicemia	551	129	120	216	87
Neoplasms	4,358	1,162	1,020	1,556	621
Malignant neoplasms	3,487	932	829	1,233	493
Malignant neoplasm of large intestine and rectum	238	55	57	87	39
Malignant neoplasm of trachea, bronchus, and lung	490	138	125	173	54
Malignant neoplasm of breast	239	57	56	90	36
Benign neoplasms and neoplasms of uncertain behavior and unspecified nature210–229,235–239	872	230	191	323	128
Endocrine, nutritional and metabolic diseases, and immunity disorders	11,140 3,670	2,597 880	2,870 869	4,102 1,379	1,571 543
Volume depletion	1,538	316	403	609	209
Diseases of the blood and blood-forming organs	3,553	841	848	1,263	601
Mental disorders	6,297	1,779	1,610	1,944	963
Psychoses	2,219	622	545	721	331
Alcohol dependence syndrome	758	211	200	215	132
Diseases of the nervous system and sense organs	3,412	854	789	1,222	546
Diseases of the central nervous system	1,580	367	418	528	267
Diseases of the ear and mastoid process	504	114	126	176	87
Diseases of the circulatory system	23,821	5,992	5,875	8,700	3,254
Heart disease	15,041	3,838	3,722	5,456	2,025
Acute myocardial infarction	840	199	222	295	123
Coronary atherosclerosis	2,601	690	622	906	383
Other ischemic heart disease	2,883 3,017	777 736	697 739	1,007	402 423
Cardiac dysrhythmias	3,017 2,515	736 582	739 688	1,118 960	285
Cerebrovascular disease	1,766	379	447	695	245
Diseases of the respiratory system	8,693	1,996	2,181	3,258	1,259
Acute respiratory infections	826	162	235	320	109
Chronic disease of tonsils and adenoids	58	26	*6	16	9
Pneumonia	1,802	349	460	700	293
Asthma	1,000	295	235	318	152
Diseases of the digestive system	7,878	1,923	1,862	2,905	1,188
Ulcers of the stomach and small intestine	523	121	131	190	81
Appendicitis	263	49	63	90	60
Inguinal hernia	146	50	33	43	19
Noninfectious enteritis and colitis	761 749	170 178	177 170	307 283	107 118
Diseases of the genitourinary system	6,982	1,564	1,640	2,750	1,027
Calculus of kidney and ureter	302	1,364	71	131	32
Hyperplasia of prostate	375	100	93	127	55
Complications of pregnancy, childbirth, and the puerperium	7,797	1,440	1,574	2,983	1,800
Abortions and ectopic and molar pregnancies	151	43	25	59	24
Diseases of the skin and subcutaneous tissue	1,402	383	350	461	207
Cellulitis and abscess	571	156	150	175	88
Diseases of the musculoskeletal system and connective tissue	4,319	1,033	1,073	1,529	683
Arthropathies and related disorders	1,818	437	479	605	297
Intervertebral disc disorders	535	111	116	238	70
Congenital anomalies	517	164	102	152	98
Certain conditions originating in the perinatal period	354	63	69	145	78
Symptoms, signs, and ill-defined conditions	5,436	1,291	1,371	1,965	809
Injury and poisoning       .800–999         Fractures, all sites       .800–829	6,014 1,534	1,366 306	1,417 369	2,073 547	1,157 312
Fractures, all sites	336	306 64	369 80	123	69
Intracranial injuries (excluding those with skull fracture)	220	46	54	70	50
Lacerations and open wounds	545	119	112	212	102
Supplementary classifications	7,613	1,510	1,738	2,766	1,599

Table 22. Number of all-listed procedures for discharges from short-stay hospitals, by age and procedure category: United States, 1993 [Discharges of inpatients from non-Federal hospitals. Excludes newborn infants. Groupings of procedures 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
	N	umber of all-list	ed procedur	es in thous	ands
All procedures	41,608	1,863	16,021	9,178	14,546
Operations on the nervous system	909	188	327	183	211
Spinal tap	334	140	88	47	58
Operations on the endocrine system	90	*	30	35	22
Operations on the eye	391	19	83	81	208
Operations on the ear	83	40	22	13	*8
Operations on the nose, mouth, and pharynx	390	77	163	84	66
Tonsillectomy with or without adenoidectomy	50	31	16	*	*
Operations on the respiratory system	986	46	187	277	475
Bronchoscopy with or without biopsy	301	13	58	88	142
Operations on the cardiovascular system	4,410	131	486	1,560	2,234
Removal of coronary artery obstruction	398	*	30	185	183
Coronary artery bypass graft <sup>1</sup>	485	<del>-</del>	21	205	260
Cardiac catheterization	1,010	14	90	420	485
Insertion, replacement, removal, and revision of pacemaker leads or device	281	*		42	232
Shunt or vascular bypass	173	*	19	58	94
Hemodialysis	328	00	73	117	137
Operations on the hemic and lymphatic system	377	22	63	117	176
Operations on the digestive system	5,096	169	1,376	1,342	2,210
Endoscopy of small intestine with or without biopsy	832	11	143	207	471
Endoscopy of large intestine with or without biopsy	517	*	74	133	307
Partial excision of large intestine	207 250	49	24 148	60 35	120 17
Cholecystectomy	502	*	182	150	168
Repair of inguinal hernia	109	10	19	27	54
Lysis of peritoneal adhesions	347	*	171	84	90
Operations on the urinary system	1,263	35	317	341	570
Cystoscopy with or without biopsy	329	*	60	83	181
Operations on the male genital organs	468	30	30	96	312
Prostatectomy	317		*	66	250
Operations on the female genital organs	2,197	*6	1,454	492	245
Oophorectomy and salpingo-oophorectomy	443	*	225	164	52
Bilateral destruction or occlusion of fallopian tubes	384	*	383	*	_
Hysterectomy	562	*	326	172	63
Dilation and curettage of uterus	127	*	99	19	*9
Repair of cystocele and rectocele	159	_	41	60	58
Obstetrical procedures	6,763	19	6,740	*	
Episiotomy with or without forceps or vacuum extraction	1,562	*	1,555	*	
Artificial rupture of membranes	744	*	742	*	
Cesarean section	917	*	915	*	
Fetal EKG (scalp) and fetal monitoring, not otherwise specified	1,142	*	1,139	*	
Repair of current obstetric laceration	860	*	857	*	
Operations on the musculoskeletal system	3,223	151	1,231	798	1,043
Partial excision of bone	227	*	96	76	50
Open reduction of fracture with internal fixation	423	13	142	79	189
Excision or destruction of intervertebral disc	333 125	*	175 9	115 31	44 83
Total knee replacement	179	*	*	42	131
·	1,364	74	475	364	450
Operations on the integumentary system.       .85–86         Mastectomy       .85.4	1,304	*	24	43	430 57
Debridement of wound, infection, or burn	334	20	108	88	118
Skin graft	120	11	46	28	34
Miscellaneous diagnostic and therapeutic procedures	13,599	854	3,038	3,391	6,315
Computerized axial tomography	1,158	59	272	251	576
Pyelogram	197	*	73	59	61
Arteriography and angiocardiography using contrast material	1,731	19	183	699	830
Diagnostic ultrasound	1,420	60	354	318	688
Circulatory monitoring	505	23	89	122	271
D # 1 4	412	12	69	109	222
Radioisotope scan	112			100	

<sup>&</sup>lt;sup>1</sup>The number of discharges with a coronary artery bypass graft was 309,000.

Table 23. Rate of all-listed procedures for discharges from short-stay hospitals, by age and procedure category: United States, 1993

Procedure category and ICD-9-CM code	All ages	Under 15 years	15–44 years	45–64 years	65 years and over
	Rate	of all-listed pro	cedures per	100,000 pop	oulation
All procedures	16,225.6	3,283.4	13,653.6	18,521.8	44,360.0
Operations on the nervous system	354.5	330.9	278.5	369.4	644.6
Spinal tap	130.1	247.0	75.3	93.8	178.4
Operations on the endocrine system	35.0	*	25.2	70.9	65.8
Operations on the eye	152.4	34.1	70.4	163.2	634.5
Operations on the ear	32.5	69.9	19.1	25.9	*25.8
·	152.2	135.7	138.7	170.3	201.6
Operations on the nose, mouth, and pharynx	19.6	54.3	13.6	*	*
Operations on the respiratory system	384.4 117.3	80.7 23.7	159.7 49.5	559.3 176.8	1,449.9 432.2
Operations on the cardiovascular system	1,719.8	230.0	414.2	3,148.5	6,811.7
Removal of coronary artery obstruction	155.3	*	25.6	372.9	558.4
Coronary artery bypass graft <sup>1</sup>	189.3	_	17.9	413.2	791.8
Cardiac catheterization	393.8	24.9	76.7	848.2	1,479.8
Insertion, replacement, removal, and revision of pacemaker leads or device	109.6	*	*	85.0	708.2
Shunt or vascular bypass	67.5	*	16.4	118.0	285.5
Hemodialysis	128.1		62.3	235.9	419.1
Operations on the hemic and lymphatic system	147.1 1,987.4	38.4 298.6	53.5 1,172.3	235.6 2,707.5	536.2 6,738.7
Endoscopy of small intestine with or without biopsy	324.5	18.9	121.8	418.1	1,437.1
Endoscopy of large intestine with or without biopsy	201.7	*	62.7	268.0	936.0
Partial excision of large intestine	80.6	*	20.8	120.6	367.3
Appendectomy, excluding incidental	97.5	87.2	126.4	71.2	52.0
Cholecystectomy	195.6	*	155.4	302.2	512.8
Repair of inguinal hernia	42.6	18.0	16.0	53.7	163.7
Lysis of peritoneal adhesions	135.5	*	145.3	169.7	273.6
Operations on the urinary system	492.4	61.1	270.4	688.1	1,737.3
Cystoscopy with or without biopsy	128.2	*	51.3	166.8	552.8
Operations on the male genital organs	182.6 123.7	53.3	25.4	193.4 133.5	952.2 761.3
Operations on the female genital organs	856.6	*10.0	1,238.9	993.0	747.6
Oophorectomy and salpingo-oophorectomy	172.6	*	191.7	331.3	159.7
Bilateral destruction or occlusion of fallopian tubes	149.6	*	326.4	*	-
Hysterectomy	219.0	*	278.2	347.1	191.5
Dilation and curettage of uterus	49.6	*	84.6	38.7	*26.1
Repair of cystocele and rectocele	62.1	_	35.1	121.5	176.5
Obstetrical procedures	2,637.3	33.9	5,743.7	*	
Episiotomy with or without forceps or vacuum extraction	608.9	*	1,325.6	*	
Artificial rupture of membranes	290.3	*	631.9	*	
Cesarean section	357.7	*	780.0	*	
Fetal EKG (scalp) and fetal monitoring, not otherwise specified	445.5	*	970.4	*	
Repair of current obstetric laceration	335.3		730.0		
Operations on the musculoskeletal system	1,256.9	265.6	1,049.2	1,610.2	3,182.2
Partial excision of bone	88.6	*	82.1	152.8	153.1
Open reduction of fracture with internal fixation	164.8	23.0	120.8	159.7	575.0
Excision or destruction of intervertebral disc	130.0 48.8	*	148.8 7.8	231.5 63.4	133.7 252.5
Total knee replacement	69.7	*	/.o *	85.5	400.0
·		400.0	405.0		
Operations on the integumentary system	531.7 48.3	129.8	405.2 20.2	735.2 86.8	1,372.7 173.1
Mastectomy	130.2	35.1	91.9	176.8	361.3
Skin graft	46.7	18.9	39.6	57.2	104.0
Miscellaneous diagnostic and therapeutic procedures		1,505.4	2,589.2		19,259.2
Computerized axial tomography	5,302.9 451.8	1,505.4	2,569.2	6,843.1 505.9	1,757.9
Pyelogram	451.8 76.8	104.4	62.1	118.4	1,757.9
Arteriography and angiocardiography using contrast material	674.9	33.2	156.0	1410.4	2,531.1
g and angiocalancy april doing contract material	553.9	105.9	302.0	641.7	2,097.6
Diagnostic ultrasound			-00	2	_,550
Diagnostic ultrasound	196.9	40.3	75.6	246.7	826.7
Diagnostic ultrasound		40.3 21.3	75.6 59.0	246.7 219.8	826.7 676.1

<sup>&</sup>lt;sup>1</sup>The rate per 100,000 population of discharges with a coronary bypass graft was 120.6.

Table 24. Number of all-listed procedures for discharges from short-stay hospitals, by sex and procedure category: United States, 1993 [Discharges of inpatients from non-Federal hospitals. Excludes newborn infants. Groupings of procedures and code numbers are based on the *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD-9-CM)]

All procedures	Number of all-		
All procedures		-listed procedures in	thousands
	41,608	16,142	25,466
Operations on the nervous system	909	449	460
Spinal tap	334	168	166
Operations on the endocrine system	90	25	64
Operations on the eye	391	188	203
Operations on the ear	83	48	35
	390	213	177
Operations on the nose, mouth, and pharynx	50 50	24	26
·			
Operations on the respiratory system	986 301	554 173	432 128
Operations on the cardiovascular system	4,410	2,619	1,791
Removal of coronary artery obstruction	398 485	268 353	130 133
Corollarly ariety bypass grait	1,010	613	397
Insertion, replacement, removal, and revision of pacemaker leads or device	281	141	141
Shunt or vascular bypass	173	99	74
Hemodialysis	328	168	161
Operations on the hemic and lymphatic system	377	197	181
Operations on the digestive system	5,096	2,106	2,990
Endoscopy of large intestine with or without biopsy	832 517	367 211	465 306
Partial excision of large intestine	207	93	113
Appendectomy, excluding incidental	250	135	115
Cholecystectomy	502	148	354
Repair of inguinal hernia	109	96	13
Lysis of peritoneal adhesions	347	58	289
Operations on the urinary system	1,263	653	610
Cystoscopy with or without biopsy	329	211	118
Operations on the male genital organs	468	468	
Prostatectomy	317	317	
Operations on the female genital organs	2,197		2,197
Oophorectomy and salpingo-oophorectomy	443		443
Bilateral destruction or occlusion of fallopian tubes	384		384
Hysterectomy	562		562
Dilation and curettage of uterus	127		127
Repair of cystocele and rectocele	159		159
Obstetrical procedures	6,763		6,763
Episiotomy with or without forceps or vacuum extraction	1,562		1,562
Artificial rupture of membranes	744		744
Cesarean section	917		917
Fetal EKG (scalp) and fetal monitoring, not otherwise specified	1,142		1,142
Repair of current obstetric laceration	860		860
Operations on the musculoskeletal system	3,223	1,600	1,623
Partial excision of bone	227	123	104
Open reduction of fracture with internal fixation	423	175	247
Excision or destruction of intervertebral disc	333	183	150
Total hip replacement	125	51	74
Total knee replacement	179	62	117
Operations on the integumentary system	1,364	565	799
Mastectomy	124	*	123
Debridement of wound, infection, or burn	334	184	150
Skin graft	120	69	51
Miscellaneous diagnostic and therapeutic procedures	13,599	6,455	7,143
Computerized axial tomography	1,158	565	594
Pyelogram	197	108	89
Arteriography and angiocardiography using contrast material	1,731	1,024	706
Diagnostic ultrasound	1,420	572	848
Circulatory monitoring	505	239	266
Radioisotope scan	412 876	173 427	239 449

<sup>&</sup>lt;sup>1</sup>The number of discharges with a coronary artery bypass graft was 309,000.

Table 25. Rate of all-listed procedures for discharges from short-stay hospitals, by sex and procedure category: United States, 1993

Procedure category and ICD-9-CM code	Both sexes	Male	Female
	Rate of all-listed	procedures per 100,	000 population
All procedures	16,225.6	12,955.9	19,315.6
Operations on the nervous system	354.5	360.7	348.6
Spinal tap	130.1	134.6	125.8
Operations on the endocrine system	35.0	20.2	48.9
Operations on the eye	152.4	151.1	153.7
Operations on the ear	32.5	38.4	26.8
·	152.2	171.3	134.1
Operations on the nose, mouth, and pharynx	19.6	19.1	20.0
	384.4	444.7	327.4
Operations on the respiratory system	117.3	138.6	97.2
Operations on the cardiovascular system	1,719.8 155.3	2,102.0 215.2	1,358.7 98.7
Coronary artery bypass graft <sup>1</sup>	189.3	283.2	100.5
Cardiac catheterization	393.8	491.6	301.3
Insertion, replacement, removal, and revision of pacemaker leads or device	109.6	112.8	106.6
Shunt or vascular bypass	67.5	79.4	56.2
Hemodialysis	128.1	134.5	122.1
·	147.1	157.7	137.0
Operations on the hemic and lymphatic system			
Operations on the digestive system	1,987.4	1,690.7	2,267.7
Endoscopy of small intestine with or without biopsy	324.5	294.3	353.0
Endoscopy of large intestine with or without biopsy	201.7	169.6	232.0
Partial excision of large intestine	80.6	74.8	86.0 87.1
Appendectomy, excluding incidental	97.5 195.6	108.5	268.4
Cholecystectomy         .51.2           Repair of inguinal hernia         .53.0–53.1	42.6	118.6 77.3	9.9
Lysis of peritoneal adhesions	135.5	46.7	219.3
Operations on the urinary system	492.4	524.0	462.5
Cystoscopy with or without biopsy	128.2	169.2	89.4
Operations on the male genital organs	182.6	375.8	
Prostatectomy	123.7	254.6	
Operations on the female genital organs	856.6		1,666.0
Oophorectomy and salpingo-oophorectomy	172.6		335.6
Bilateral destruction or occlusion of fallopian tubes	149.6		291.0
Hysterectomy	219.0		426.0
Dilation and curettage of uterus	49.6		96.4
Repair of cystocele and rectocele	62.1	• • •	120.8
Obstetrical procedures	2,637.3		5,129.6
Episiotomy with or without forceps or vacuum extraction	608.9		1,184.4
Artificial rupture of membranes	290.3		564.6
Cesarean section	357.7		695.8
Fetal EKG (scalp) and fetal monitoring, not otherwise specified	445.5		866.4
Repair of current obstetric laceration	335.3		652.2
Operations on the musculoskeletal system	1,256.9	1,284.5	1,230.9
Partial excision of bone	88.6	98.8	78.9
Open reduction of fracture with internal fixation	164.8	140.8	187.4
Excision or destruction of intervertebral disc	130.0	147.2	113.7
Total hip replacement	48.8	41.1	56.1
Total knee replacement	69.7	49.8	88.5
Operations on the integumentary system	531.7	453.5	605.7
Mastectomy	48.3	*	93.1
Debridement of wound, infection, or burn	130.2	147.9	113.5
Skin graft	46.7	55.4	38.4
fliscellaneous diagnostic and therapeutic procedures	5,302.9	5,181.3	5,417.9
Computerized axial tomography	451.8	453.3	450.3
Pyelogram	76.8	86.4	67.8
Arteriography and angiocardiography using contrast material	674.9	822.2	535.7
Diagnostic ultrasound	553.9	459.3	643.2
Circulatory monitoring	196.9	192.0	201.5
Radioisotope scan	160.6	139.1	181.0
Respiratory therapy	341.7	342.6	340.8

 $<sup>^{1}\</sup>mbox{The}$  rate per 100,000 population of discharges with a coronary bypass graft was 120.6.

NOTE: See "Medical coding and edit," in appendix I, for information about changes in coding system and coding modifications for the National Hospital Discharge Survey.

Table 26. Number of all-listed procedures for discharges from short-stay hospitals, by race and procedure category: United States, 1993 [Discharges of inpatients from non-Federal hospitals. Excludes newborn infants. Groupings of procedures 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 races	White	Black	All other	Not stated
	Nu	mber of all-list	ed procedure	es in thousa	nds
All procedures	41,608	27,779	4,788	2,158	6,883
Operations on the nervous system	909	588	113	40	168
Spinal tap	334	170	63	21	80
Operations on the endocrine system	90	60	13	*	13
Operations on the eye	391	292	35	9	55
Operations on the ear	83	58	*8	*	16
Operations on the nose, mouth, and pharynx	390	274	35	13	68
Tonsillectomy with or without adenoidectomy	50	33	*6	*	*9
Operations on the respiratory system	986	686	114	37	148
Bronchoscopy with or without biopsy	301	208	38	10	44
Operations on the cardiovascular system	4,410	3,052	444	201	714
Removal of coronary artery obstruction	398	292	18	15	73
Coronary artery bypass graft <sup>1</sup>	485	372	15	19	78
Cardiac catheterization	1,010	745	75	34	156
Insertion, replacement, removal, and revision of pacemaker leads or device	281	213	19	*7	42
Shunt or vascular bypass	173	104	30	*9	30
Hemodialysis	328	154	87	34	53
Operations on the hemic and lymphatic system	377	277	33	12	56
Operations on the digestive system	5,096	3,482	542	196	876
Endoscopy of small intestine with or without biopsy	832	565	96	30	141
Endoscopy of large intestine with or without biopsy	517	368	54	15	80
Partial excision of large intestine	207	150	17	*5	34
Appendectomy, excluding incidental	250	156	17	17	60
Cholecystectomy	502	354	37	21	90
Repair of inguinal hernia	109	82	*7	*	18
Lysis of peritoneal adhesions	347	233	44	14	57
Operations on the urinary system	1,263	932	89	42	198
Cystoscopy with or without biopsy	329	238	26	12	53
Operations on the male genital organs	468	323	42	14	89
Prostatectomy	317	220	22	10	65
Operations on the female genital organs	2,197	1,467	248	86	396
Oophorectomy and salpingo-oophorectomy	443	207	36	17	81
Bilateral destruction or occlusion of fallopian tubes	384	229	61	26	68
Hysterectomy	562	388	51	18	104
Dilation and curettage of uterus	127	73	24	*6	24
Repair of cystocele and rectocele	159	123	*5	*	28
Obstetrical procedures	6,763	3,852	796	674	1,441
Episiotomy with or without forceps or vacuum extraction	1,562	963	130	117	351
Artificial rupture of membranes	744	435	79	96	135
Cesarean section	917	538	118	79	182
Fetal EKG (scalp) and fetal monitoring, not otherwise specified	1,142	604	137	188	213
Repair of current obstetric laceration	860	486	82	78	214
Operations on the musculoskeletal system	3,223	2,318	261	84	560
Partial excision of bone	227	171	19	45	34
Open reduction of fracture with internal fixation	423 333	305 257	35 19	15 *9	68 49
Total hip replacement	125	93	*	*	26
Total knee replacement	179	132	9	*	36
Operations on the integumentary system	1,364	907	188	51	217
Mastectomy	1,304	86	100	*	217
Debridement of wound, infection, or burn	334	203	56	16	59
Skin graft	120	75	21	*	20
Miscellaneous diagnostic and therapeutic procedures	13,599	9,210	1,827	693	1,868
Computerized axial tomography	1,158	770	188	64	136
Pyelogram	197	140	14	9	33
Arteriography and angiocardiography using contrast material	1,731	1,287	147	63	234
Diagnostic ultrasound	1,420	906	243	84	186
Circulatory monitoring	505	332	75	37	61
Radioisotope scan	412	290	60	18	44
Tradiciotope 30aii					

<sup>&</sup>lt;sup>1</sup>The number of discharges with a coronary artery bypass graft was 309,000.

Table 27. Rate of all-listed procedures for discharges from short-stay hospitals, by race and procedure category: United States, 1993

Procedure category and ICD-9-CM code	All races	White	Black	All other	Not stated
	Rate o	of all-listed pro	cedures per 1	100,000 popul	ation
All procedures	16,225.6	13,004.1	15,015.0	19,746.7	
Operations on the nervous system	354.5	275.2	355.3	365.4	
Spinal tap	130.1	79.5	196.5	193.9	
Operations on the endocrine system	35.0	28.1	40.6	*	
Operations on the eye	152.4	136.6	110.7	83.8	
Operations on the ear	32.5	27.3	*23.7	*	
·					
Operations on the nose, mouth, and pharynx	152.2	128.2	110.7	117.7	
Tonsillectomy with or without adenoidectomy	19.6	15.6	*18.9	0.40.5	
Operations on the respiratory system	384.4 117.3	321.0 97.3	358.7 120.2	342.5 93.6	
Bronchoscopy with or without biopsy					
Operations on the cardiovascular system	1,719.8	1,428.8	1,390.9	1,840.4	
Removal of coronary artery obstructon	155.3 189.3	136.9 174.4	56.8 48.5	134.3 174.5	
Coronary artery bypass graft <sup>1</sup>	393.8	348.5	46.5 234.9	315.7	
Insertion, replacement, removal, and revision of pacemaker leads or device	109.6	99.7	59.2	*63.7	
Shunt or vascular bypass	67.5	48.6	94.2	*80.0	
Hemodialysis	128.1	72.3	272.4	311.9	
Operations on the hemic and lymphatic system	147.1	129.8	102.6	106.1	
Operations on the digestive system	1,987.4	1,630.2	1,700.7	1,793.1	
Endoscopy of small intestine with of without biopsy	324.5 201.7	264.7 172.2	301.1 169.0	273.1 137.5	
Partial excision of large intestine	80.6	70.4	52.1	*48.2	
Appendectomy, excluding incidental	97.5	73.1	54.8	153.6	
Cholecystectomy	195.6	165.5	117.2	194.2	
Repair of inguinal hernia	42.6	38.2	*22.4	*	
Lysis of peritoneal adhesions	135.5	108.9	136.5	126.3	
Operations on the urinary system	492.4	436.5	280.4	387.5	
Cystoscopy with or without biopsy	128.2	111.3	82.8	120.6	
	182.6	151.2	132.0	127.0	
Operations on the male genital organs       .60–64         Prostatectomy       .60.2–60.6	123.7	103.1	70.1	88.7	
•	856.6			785.4	• • • •
Operations on the female genital organs	172.6	686.6 143.9	776.3 114.3	785.4 158.0	
Oophorectomy and salpingo-oophorectomy	149.6	107.0	191.1	235.0	
Hysterectomy	219.0	181.6	160.8	164.6	
Dilation and curettage of uterus	49.6	34.4	74.1	*53.2	
Repair of cystocele and rectocele	62.1	57.8	*17.0	*	
Obstetrical procedures	2,637.3	1,803.3	2,496.2	6,168.6	
Episiotomy with or without forceps or vacuum extraction	608.9	450.9	406.6	1,073.6	
Artificial rupture of membranes	290.3	203.4	246.5	881.6	
Cesarean section	357.7	251.7	370.1	723.6	
Fetal EKG (scalp) and fetal monitoring, not otherwise specified	445.5	282.6	430.2	1,723.6	
Repair of current obstetric laceration	335.3	227.6	258.7	710.7	
Operations on the musculoskeletal system	1,256.9	1,085.1	819.1	767.7	
Partial excision of bone	88.6	80.1	58.5	*	
Open reduction of fracture with internal fixation	164.8	142.9	110.0	133.4	
Excision or destruction of intervertebral disc	130.0	120.3	58.1	*79.5	
Total hip replacement	48.8	43.7	*	*	
Total knee replacement	69.7	62.0	28.4	*	
Operations on the integumentary system	531.7	424.6	588.9	469.6	
Mastectomy	48.3	40.2	32.1	*	
Debridement of wound, infection, or burn	130.2	95.1	177.1	144.8	
Skin graft	46.7	35.1	66.6	*	
liscellaneous diagnostic and therapeutic procedures	5,302.9	4,311.6	5,728.8	6,346.3	
Computerized axial tomography	451.8	360.6	590.7	583.3	
Pyelogram	76.8	65.5	45.4	85.4	
Arteriography and angiocardiography using contrast material	674.9	602.5	461.2	575.5	
Diagnostic ultrasound	553.9	424.1	763.6	771.5	
Circulatory monitoring	196.9	155.4	235.2	334.2	
<del>-</del>	196.9 160.6	155.4 135.6	235.2 188.8	334.2 164.1	

 $<sup>^{1}\</sup>mbox{The}$  rate per 100,000 population of discharges with a coronary bypass graft was 120.6.

NOTE: See "Medical coding and edit," in appendix I, for information about changes in coding system and coding modifications for the National Hospital Discharge Survey. Rates for race categories may be underestimated because race was not reported for all discharges.

Table 28. Number of all-listed procedures for discharges from short-stay hospitals, by geographic region and procedure category: United States, 1993

Procedure category and ICD-9-CM code	United States	North- east	Midwest	South	West
	Nu	mber of all-lis	sted procedure	s in thousand	 ds
All procedures	41,608	10,322	8,996	13,883	8,408
Operations on the nervous system	909	203	201	316	190
Spinal tap	334	71	62	124	77
Operations on the endocrine system	90	24	18	33	14
Operations on the eye	391	139	32	193	28
Operations on the ear	83	30	13	26	14
Operations on the nose, mouth, and pharynx	390	141	61	132	56
Tonsillectomy with or without adenoidectomy	50	19	*6	15	10
Operations on the respiratory system	986	261	213	330	183
Bronchoscopy with or without biopsy	301	80	65	103	52
Operations on the cardiovascular system	4,410	969	1,064	1,525	852
Removal of coronary artery obstruction	398	66	104	137	91
Coronary artery bypass graft <sup>1</sup>	485	110	129	149	97
Cardiac catheterization	1,010	208	233	401	167
Insertion, replacement, removal, and revision of pacemaker leads or device	281	74	57	107	43
Shunt or vascular bypass	173	40	38	64	31
Hemodialysis	328	67	54	114	94
Operations on the hemic and lymphatic system	377	103	86	127	61
Operations on the digestive system	5,096	1,229	1,185	1,827	856
Endoscopy of small intestine with or without biopsy	832	194	194	316	128
Endoscopy of large intestine with or without biopsy	517	154	113	194	57
Partial excision of large intestine	207	45	51	73	37
Appendectomy, excluding incidental	250	43	59	89	59
Cholecystectomy	502	124	110	190	78
Repair of inguinal hernia	109	35	24	37	13
Lysis of peritoneal adhesions	347	69	83	145	50
Operations on the urinary system	1,263	373	271	439	179
Cystoscopy with or without biopsy	329	99	79	119	31
Operations on the male genital organs	468	124	107	166	71
Prostatectomy	317	73	75	114	55
Operations on the female genital organs	2,197	428	438	949	382
Oophorectomy and salpingo-oophorectomy	443	71	102	191	79
Bilateral destruction or occlusion of fallopian tubes	384	53	67	195	68
Hysterectomy	562	90	127	245	100
Dilation and curettage of uterus	127	46	20	45	16
Repair of cystocele and rectocele	159	23	30	78	29
Obstetrical procedures	6,763	1,228	1,408	2,301	1,826
Episiotomy with or without forceps or vacuum extraction	1,562	275	351	612	324
Artificial rupture of membranes	744	116	173	186	269
Cesarean section	917	152	170	404	190
Fetal EKG (scalp) and fetal monitoring, not otherwise specified	1,142	285	248	158	452
Repair of current obstetric laceration	860	155	186	298	222
Operations on the musculoskeletal system	3,223	766	709	1,130	617
Partial excision of bone	227	51	48	86	42
Open reduction of fracture with internal fixation	423	87	87	153	96
Excision or destruction of intervertebral disc	333	65	70	150	49
Total hip replacement	125	25	37	38	26
Total knee replacement	179	36	59	57	26
Operations on the integumentary system	1,364	375	283	468	237
Mastectomy	124	24	31	49	20
Debridement of wound, infection, or burn	334	91	72	111	59
Skin graft	120	28	22	47	22
Miscellaneous diagnostic and therapeutic procedures	13,599	3,930	2,908	3,919	2,841
Computerized axial tomography	1,158	368	189	353	249
Pyelogram	197	53	47	73	23
Arteriography and angiocardiography using contrast material	1,731	372	409	676	274
Diagnostic ultrasound	1,420	436	261	378	345
Circulatory monitoring	505	128	117	113	148
Radioisotope scan	412 976	142	68 186	121	81 286
Respiratory therapy	876	223	186	181	286

<sup>&</sup>lt;sup>1</sup>The number of discharges with a coronary artery bypass graft was 309,000.

Table 29. Rate of all-listed procedures for discharges from short-stay hospitals, by geographic region and procedure category: United States, 1993

Procedure category and ICD-9-CM code	United States	North- east	Midwest	South	West
	Rate	of all-listed pro	ocedures per	100,000 pop	ulation
All procedures	16,225.6	20,131.6	14,757.3	15,660.4	15,134.2
Operations on the nervous system	354.5	395.5	329.7	356.1	341.3
Spinal tap	130.1	137.6	102.2	139.9	138.1
Operations on the endocrine system	35.0	46.5	29.8	37.4	26.0
Operations on the eye	152.4	270.2	51.9	217.3	50.5
Operations on the ear	32.5	59.0	22.1	29.0	24.9
Operations on the nose, mouth, and pharynx	152.2	274.7	99.5	149.2	101.7
Tonsillectomy with or without adenoidectomy	19.6	36.9	*10.1	17.4	17.4
Operations on the respiratory system	384.4	508.4	348.6	372.2	328.7
Bronchoscopy with or without biopsy	117.3	156.9	106.7	116.5	93.8
Operations on the cardiovascular system	1,719.8	1,889.7	1,745.1	1,720.6	1,534.2
Removal of coronary artery obstruction	155.3	129.5	170.0	154.7	163.9
Coronary artery bypass graft <sup>1</sup>	189.3	214.0	212.1	168.4	174.8
Cardiac catheterization	393.8	406.6	382.3	452.2	301.3
Insertion, replacement, removal, and revision of pacemaker leads or device	109.6	144.2	93.6	120.7	77.4
Shunt or vascular bypass	67.5	77.6	61.7	72.5	56.5
Hemodialysis	128.1	130.5	88.5	128.1	169.2
Operations on the hemic and lymphatic system	147.1	200.1	141.4	143.2	110.5
Operations on the digestive system	1,987.4	2,396.4	1,943.8	2,061.1	1,540.0
Endoscopy of small intestine with or without biopsy	324.5	377.8	317.9	356.9	230.6
Endoscopy of large intestine with or without biopsy	201.7	300.2	184.6	219.2	101.8
Partial excision of large intestine	80.6	88.6	84.2	82.7	65.8
Appendectomy, excluding incidental	97.5	83.3	96.8	100.3	107.1
Cholecystectomy	195.6	241.5	180.7	213.9	140.6
Repair of inguinal hernia	42.6	67.5	39.9	41.9	23.8
Lysis of peritoneal adhesions	135.5	134.9	136.7	163.6	89.7
Operations on the urinary system	492.4	728.4	444.8	495.5	321.6
Cystoscopy with or without biopsy	128.2	193.8	130.3	134.2	55.7
Operations on the male genital organs	182.6	242.5	175.3	187.6	127.4
Prostatectomy	123.7	143.2	122.4	128.4	99.6
Operations on the female genital organs	856.6 172.6	833.9 137.8	718.0 167.2	1,070.4 215.4	688.4 142.1
Oophorectomy and salpingo-oophorectomy	149.6	103.7	110.1	220.4	122.2
Hysterectomy	219.0	175.0	208.3	276.1	180.4
Dilation and curettage of uterus	49.6	89.9	32.6	51.0	28.7
Repair of cystocele and rectocele	62.1	45.2	48.7	87.6	51.8
Obstetrical procedures	2,637.3	2,394.4	2,309.1	2,596.2	3,287.2
Episiotomy with or without forceps or vacuum extraction	608.9	536.2	575.7	690.4	582.5
Artificial rupture of membranes	290.3	227.0	283.5	210.0	484.3
Cesarean section	357.7	297.2	279.3	456.1	342.7
Fetal EKG (scalp) and fetal monitoring, not otherwise specified	445.5	555.0	406.5	178.4	813.2
Repair of current obstetric laceration	335.3	301.3	305.0	335.7	399.4
Operations on the musculoskeletal system	1,256.9	1,494.8	1,163.0	1,275.2	1,111.2
Partial excision of bone	88.6	100.3	78.9	96.8	75.1
Open reduction of fracture with internal fixation	164.8	169.2	142.8	172.2	172.9
Excision or destruction of intervertebral disc	130.0	126.6	114.6	169.0	87.7
Total hip replacement	48.8	49.0	60.2	42.4	46.4
Total knee replacement	69.7	70.7	97.6	64.1	47.3
Operations on the integumentary system	531.7	730.8	464.9	528.3	427.0
Mastectomy	48.3	47.4 178.4	50.8 118.3	54.9 125.7	35.8 105.9
Debridement of wound, infection, or burn	130.2 46.7	178.4 54.4	118.3 36.8	125.7 53.3	39.8
Miscellaneous diagnostic and therapeutic procedures	5,302.9 451.8	7,666.1 716.8	4,770.2 310.8	4,421.2 397.8	5,113.5 447.8
Pyelogram	76.8	103.7	77.2	82.8	42.0
Arteriography and angiocardiography using contrast material	674.9	726.4	670.8	762.3	492.5
Diagnostic ultrasound	553.9	849.8	428.8	426.5	621.2
Circulatory monitoring	196.9	249.0	191.1	127.0	266.6
Radioisotope scan	160.6	276.0	111.8	136.5	146.2
Respiratory therapy	341.7	435.0	304.5	204.7	514.8

<sup>&</sup>lt;sup>1</sup>The rate per 100,000 population of discharges with a coronary artery bypass graft was 120.6.

## **Appendixes**

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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 Department of Veterans Affairs 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 newly opened hospitals. Sample hospitals were selected with probabilities ranging from certainty for the largest hospitals to 1 in 40 for the smallest hospitals. Within each sample hospital, a systematic random sample of discharges was selected. A description of 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 (6).

New sampling design—The 1988 NHDS sampling frame consisted of hospitals that were listed in the April 1987 SMG Hospital Market Database (2) and that began to accept inpatients by August 1987. The sampling frame was updated in 1991 to include hospitals from the 1991 SMG Hospital Market Database (3). 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 (7).

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 Database. Hospitals were then selected from each stratum's ordered array by systematic random sampling with probability proportional to their SMGrecorded 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 1993, the sample consisted of 528 hospitals. Of the 528 hospitals, 15 were found to be out of scope (ineligible) because prior to 1993 they went out of business or otherwise failed to meet the criteria for the NHDS universe.

Table I. Definition of noncertainty hospital specialty-size groups used as secondary strata in the National Hospital Discharge Survey 1993 sample design

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

<sup>1</sup> Includes psychiatry, tuberculosis and other respiratory disease, rehabilitation, chronic disease, mental retardation, alcoholism and other chemical dependency, and children's psychiatry.

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, 1993

Geographic region	Universe	Total sample	Sample in scope <sup>1</sup>	Respondents <sup>2</sup>	Response rate
		Percent			
All regions	6,250	528	513	466	91
Northeast	917	113	112	104	93
Midwest	1,740	117	112	104	93
South	2,387	217	213	196	92
West	1,206	81	76	62	82

<sup>1</sup> Excludes 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.

Of the 513 in-scope (eligible) hospitals, 466 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 auto-

mated) 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 1993 included 235,000 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 32 percent of the respondent hospitals in 1993, that involved the purchase of data tapes from abstracting service organizations and selected state systems.

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 1993, 55 percent had the work performed by their own medical records staff. In the remaining hospitals using the manual

<sup>2&</sup>quot;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.

<sup>&</sup>lt;sup>2</sup>Hospitals 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.

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 and selected sample discharges from these tapes.

Figure I shows the information collection form used in 1993. 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) (8). The PSU, hospital name, medical record number, date of birth, 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 (4).

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 1993 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 data in this report were coded using the addenda for October 1, 1986-92. When data were reported using code changes introduced in the October 1, 1993 addenda, the new codes were converted to their previous code assignments so that the annual estimates would be based on consistent coding. 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 fact 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 is assigned as the first-listed code in order to provide an estimate of all deliveries. In the other exception, whenever an acute myocardial infarction is encountered with other circulatory diagnoses and is other than the first entry, it is 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 1993 data year was 3.7 percent for medical (ICD-9-CM) coding and entering and 0.7 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 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 or chapters.

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—Less than half of one percent of the discharge records failed to include the sex of the patient. Age or date of birth was available for all records. If the hospital record did not state the sex of the patient, it was imputed by assigning the patient a sex consistent with the sex of other sampled patients with the same diagnostic code. In approximately one percent of the records, the age or sex was edited because it was inconsistent with the diagnosis. Data on race was missing for 19 percent of the records, and no attempt was made to impute for these missing values.

During 1993, 9.7 percent of the records lacked the day of admission or day of discharge, but included a length of stay and a discharge month. For records with a length of stay more than 30 days, a discharge day of the 20th of the month was assigned to the record and the admission date was computed based on the given length of stay. For records with a length of stay 30 days or less, a discharge day of the 30th of the month was assigned and the admission date was computed from the length of stay. Other edit and imputation procedures may have been applied to data in the NHDS collected in automated form.

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

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U.S. PUBLIC HEALTH SERVICE
CENTERS FOR DISEASE CONTROL
NATIONAL CENTER FOR HEALTH STATISTICS FORM **HDS-1** (3-12-93) **MEDICAL ABSTRACT - NATIONAL HOSPITAL DISCHARGE SURVEY** A. PATIENT IDENTIFICATION Month Day Year 1. Hospital number . . . . . . . . . . . . . . . . 4. Date of admission **2.** HDS number . . . . . . . . . . . . . . . . 5. Date of discharge . . 3. Medical record number \_ 6. Residence ZIP Code **B. PATIENT CHARACTERISTICS** 1 🗌 Years Units Month 8. Age (Complete only if date of Day Year 2 Months birth not given) ...... 7. Date of birth 3 Days 9. Sex (Mark (X) one) I 1 Male 2 Female 3 Not stated 3 American Indian/Eskimo/Aleut 1 White 5 Other (Specify) 10. Race 2 Black 6 Not stated 4 Asian/Pacific Islander 11. Ethnicity (Mark (X) one) 1 Hispanic origin 2 Non-Hispanic 3 Not stated 12. Marital status (Mark (X) one) 1 1 Married 5 Separated 3 Widowed 2 Single 4 Divorced 6 Not stated 14. Status/Disposition of patient (Mark (X) appropriate box(es)) 13. Expected source(s) of payment Other additional Principal (Mark sources one only) (Mark accordingly) Status Disposition 1. Worker's compensation . . . . . . . . . . . 1 ☐ Alive → a. ☐ Routine discharge/ discharged home Government b. Left against medical advice sources c. Discharged, transferred to 5. Other government payments . . . } another short-term hospital d. Discharged, transferred to  $\Box$ **Private** long-term care institution sources 7. Other private or commercial insurance e. 

Other disposition/not stated Other sources 2 Died 10. Other (Specify) \_ 3 Status not stated ☐ No source of payment indicated C. FINAL DIAGNOSES (including E-code diagnoses) Optional - ICD-9-CM Nos. Principal: Other/additional: \_\_ See reverse side for additional diagnoses **D. SURGICAL AND DIAGNOSTIC PROCEDURES** Date Month Day Year Principal: \_ Other/additional: \_ NONE ☐ See reverse side for additional diagnoses Completed by Date

±U.S.GPO:1993-0-750-064/80032

Figure I. Medical abstract for the National Hospital Discharge Survey, 1993

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.

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

#### **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.

**Table III. Civilian population by selected characteristics: United States, 1993**[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	Age, geographic region, and race	Both sexes	Male	Female
All ages	Population	on in thou	sands	15-44 years-Con.	Population in thousands		
Total	256,436	124,592	131,843	Race:	00.040	40.004	40.000
Region:				White	96,310	48,301	48,008
Northeast	51,271	24,669	26,602	All other	15,445	7,313	8,132
Midwest	60,959	29,613	31,347	All other	5,586	2,727	2,859
South	88,648	42,768	45,881	45–64 years			
West	55,557	27,543	28,014	·	40.550	00.004	05.040
Race:				Total	49,550	23,904	25,646
White	213,621	104 252	109,369	45–54 years	28,628	13,976	14,652
Black	31,888	15,022	16,866	55–64 years	20,922	9,928	10,994
All other	10,927	5,318	5,609	Region:			
	-,-	-,	-,	Northeast	10,393	4,962	5,432
Under 15 years				Midwest	11,782	5,709	6,073
Total	56,753	29,053	27,700	South	17,292	8,283	9,009
	•	,	•	West	10,082	4,950	5,132
Under 1 year	3,920	2,003	1,917	Race:			
1–4 years	15,785 37,048	8,075 18,975	7,709 18,073	White	42,750	20,833	21,917
•	37,040	10,973	10,073	Black	4,988	2,224	2,764
Region:				All other	1,812	847	965
Northeast	10,470	5,362	5,108				
Midwest	13,514	6,921	6,592	65 years and over			
South	19,554	10,000	9,554	Total	32,791	13,293	19,498
West	13,216	6,770	6,445	65–74 years	18,652	8,236	10,417
Race:				75–84 years	10,769	4,112	6,657
White	45,115	23,149	21,966	85 years and over	3,369	946	2,424
Black	8,815	4,467	4,349	,	0,000	0.0	_,
All other	2,823	1,438	1,385	Region: Northeast	7,199	2,844	4,354
15-44 years				Midwest	8,060	3,241	4,819
•		=	== ===	South	11,360	4,601	6,758
Total	117,341	58,342	58,999	West	6,173	2,606	3,566
15–24 years	35,456	17,901	17,555		0,173	2,000	3,300
25–34 years	41,342	20,460	20,882	Race:	00.447	44.000	47 477
35–44 years	40,543	19,981	20,562	White	29,447	11,969	17,477
Region:				Black	2,639	1,018	1,621
Northeast	23,208	11,501	11,707	All other	705	306	400
Midwest	27,603	13,741	13,863				
South	40,443	19,884	20,559				
West	26,087	13,216	12,870				

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 1994 SMG Hospital Market Database (9).

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 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-specialtysize 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 Database (9) 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 abstraction, 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.

Table IV. Estimated parameters for relative standard error equations for National Hospital Discharge Survey statistics by selected characteristics: United States, 1993

	discha	Number of discharges or rst-listed diagnoses		Number of all-listed diagnoses		Number of days of care		nber of edures
Characteristic		b	а	b	а	b	а	b
Total	0.00129	1,082.615	0.00167	1,076.014	0.00176	1,846.934	0.00178	463.926
Sex								
Male	0.00425	332.843	0.00320	317.725	0.00852	1,037.674	0.00681	273.720
Female	0.00304	417.946	0.00219	607.621	0.00750	2,795.394	0.00386	636.779
Age								
Jnder 15 years	0.06552	110.056	0.05153	125.423	0.04131	176.591	0.03770	110.109
15–44 years	0.00618	245.201	0.00429	297.759	0.01697	509.236	0.00863	304.399
45–64 years	0.00826	182.876	0.00880	180.459	0.01850	192.754	0.00509	127.555
65 years and over	0.00410	314.867	0.00236	12.911	0.01003	1,567.290	0.00176	551.656
Region								
Northeast	0.00282	307.085	0.00389	249.488	0.00515	1,562.490	0.00561	321.543
Midwest	0.00686	660.696	0.00789	497.590	0.02612	569.283	0.00848	212.188
South	0.00289	543.012	0.00372	723.299	0.00486	1,462.136	0.00373	418.823
West	-0.00193	1,689.447	0.00081	2,474.137	0.03363	2,889.826	0.00858	1,057.07
Source of payment								
Worker's compensation	0.03739	343.704	0.02168	1,309.058	0.02003	3,795.978	0.01375	2,049.13
Medicare	0.00393	324.078	0.01134	1,334.180	0.00493	1,799.284	0.00856	338.428
Medicaid	0.00295	867.318	0.00167	5,902.552	0.00273	8,939.791	0.00442	1,627.049
Other government	0.01925	1,283.325	0.03995	7,613.656	0.01986	11,495.000	0.02417	877.284
Private	0.00154	2,261.692	0.00252	20,291.000	0.00126	16,794.000	0.00235	5,232.749
Self	0.00278 0.02782	819.599 867.385	0.00274 0.03129	3,514.979 1,565.705	0.02831 0.02558	5,931.526 9,983.000	0.00791 0.05026	1,760.988 1,342.692
No charge/other	0.02762	444.527	0.03129	994.562	0.02336	1,827.646	0.05026	59.909
	0.03343	777.521	0.04114	334.502	0.04027	1,021.040	0.00409	33.30
Race								
White	0.00281	935.083	0.00275	780.935	0.00346	1,590.810	0.00369	440.649
Black	0.00599	284.162	0.00609	278.663	0.01074	661.233	0.00732	265.143
All other	0.02968	335.994	0.03510	290.449	0.07275	348.509	0.03606	198.400
Not stated	0.01066	1,087.208	0.01296	1,424.873	0.01905	1,490.095	0.01167	1,190.80

NOTE: The relative standard error (RSE) for an estimate (X) can be determined from the equation RSE(X) = 100  $(\sqrt{a+b/X})$ .

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 (10).

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, expressed as a percent of X, may be estimated from the formula:

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

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

Relative standard errors for estimates of percents—The relative standard error for a percent 100p (0 ), expressed as a percent of <math>p may be calculated directly using the formula:

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

where 100p 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 5 percent or the relative standard errors of the numerator and denominator are both less than 10 percent (11,12).

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, expressed as a percent of X/Y, is approximated by

$$RSE(X/Y) = 100 \sqrt{[RSE(X)]^2 + [RSE(Y)]^2}$$

This approximation is valid if the relative standard error of the denominator is less than 5 percent or the relative standard errors of the numerator and denominator are both less than 10 percent (11,12).

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 specified as the principal diagnosis or listed first on the face sheet or discharge summary of the medical record if the principal diagnosis is not specified. 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.

#### 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.) Beginning with the 1991 data, all ICD–9–CM procedure codes are used in the NHDS. Previously, selected codes, primarily codes for miscellaneous diagnostic and therapeutic codes, were not used.

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

*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 codes 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 U.S. 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 three groups, "white," "black," and "all other," with all other including all categories other than white or black. In addition, 19 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.

Region States included

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

## DEPARTMENT OF HEALTH & HUMAN SERVICES

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