From Vital and Health Statistics of the National Center for Health Statistics

September 28, 1984 • Number 101

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1983 Summary: National Hospital Discharge Survey

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Introduction

During 1983 an estimated 38.8 million inpatients, excluding newborn infants, were discharged from short-stay non-Federal hospitals in the United States. These patients were hospitalized an average of 6.9 days and used 268.3 million days of inpatient hospital care. Patients hospitalized during 1983 accounted for 167 discharges and 1,155 days of care per 1,000 civilian population.

These and other statistics presented in this report are based on data collected by means of the National Hospital Discharge Survey, a continuous survey that has been conducted by the National Center for Health Statistics since 1965. In 1983, data were abstracted from the face sheets of medical records of approximately 206,000 patients discharged from 418 short-stay non-Federal hospitals. A brief description of the sample design, data collection procedures, and estimation process, and definitions of terms used in this report can be found in the section entitled "Technical notes." A detailed discussion of these items, as well as the survey form used to collect the data, have been published. 1,2

Coding of medical data for patients hospitalized is done according to the International Classification of Diseases, 9th Revision, Clinical Modification³ (ICD-9-CM). Up to seven diagnoses and four procedures are coded for each discharge. Although diagnoses included in the ICD-9-CM section entitled "Supplementary classification of external causes of injury and poisoning" (codes E800-E999) are used by the National Hospital Discharge Survey, these diagnoses are excluded from this report. The conditions diagnosed and procedures performed are presented here by chapter of ICD-9-CM. Within these chapters, a few diagnoses and procedures or groups thereof also are shown. These specific categories were selected primarily because of large numbers of occurrences or because they are of special interest. Residual categories of the diagnostic and procedure classes, however, are not included in the tables. More

detailed analyses of these data will be presented in later reports in Series 13 of *Vital and Health Statistics*.

Data highlights

Utilization by patient and hospital characteristics

The number, rate, and average length of stay of patients discharged from short-stay non-Federal hospitals are shown by selected patient and hospital characteristics in tables 1–3. The 38.8 million patients discharged from short-stay hospitals during 1983 included an estimated 15.6 million males and 23.2 million females. The rates per 1,000 population were 139 for males and 193 for females, making the rate for females about 39 percent higher than the rate for males. The number and rate of discharges are always higher for females than for males because of the large number of women in their childbearing years (15–44 years of age) who are hospitalized for deliveries and other obstetrical conditions. Excluding deliveries, the rate for females discharged was 160, or only about 15 percent higher than the rate for males.

The average length of stay was 7.4 days for males and 6.6 days for females during 1983. The length of stay for females was shorter than that for males primarily because the average length of stay of the 4.0 million women who were hospitalized for deliveries was only 3.6 days. The average length of stay for females who were not hospitalized for deliveries during 1983 was 7.2 days.

The number of discharges from short-stay hospitals by geographic region during 1983 ranged from 13.9 million in the South Region to 6.6 million in the West Region, and the rates per 1,000 population ranged from 178 in the North Central Region to 146 in the West Region. Regional differences in the number of discharges are accounted for mainly by variations in population sizes and to a lesser extent by variations in the dis-

charge rates. This is apparent when number of discharges and rate of discharges are compared among the regions. Although the rate of discharges per 1,000 population was highest in the North Central and South Regions with no significant difference between them, the number of discharges and the civilian population in the South Region was about 30 percent higher than in the North Central Region.

Average lengths of stay by geographic region were 5.9 days in the West, 6.6 days in the South, 7.2 days in the North Central, and 8.1 days in the Northeast.

Discharges from short-stay hospitals were about 40 percent male and 60 percent female in every hospital bed-size group; females with deliveries accounted for about 10.3 percent of all discharges regardless of hospital size. The average length of stay increased steadily from 5.8 days in the smallest hospitals (6–99 beds) to 7.8 days in the largest hospitals (500 beds or more) for all patients.

During 1983, voluntary nonprofit hospitals provided medical care to an estimated 26.7 million patients, or 69 percent of all patients hospitalized. Hospitals operated by State and local governments cared for 8.2 million patients, or 21 percent of all discharges, and proprietary hospitals operated for profit cared for 3.9 million patients or 10 percent of all discharges. Average lengths of stay were 7.1 days in voluntary nonprofit hospitals, 6.3 days in State and local government hospitals, and 6.8 days in proprietary hospitals.

Utilization by diagnosis

Diseases of the circulatory system ranked first in 1983 among the ICD-9-CM diagnostic chapters as a principal or first-listed diagnosis among patients discharged from non-Federal short-stay hospitals. These conditions accounted for an estimated 5.7 million discharges. Other leading ICD-9-CM diagnostic chapters were diseases of the digestive system (4.5 million discharges) and supplementary classifications (including females with deliveries) (4.5 million discharges). Almost 40 percent of the patients discharged from non-Federal short-stay hospitals were included in these three ICD-9-CM diagnostic chapters.

The diagnostic categories presented in this report were selected either because they appear as principal or first-listed diagnoses with great frequency or because the conditions are of special interest. Although many of these categories (such as malignant neoplasms; psychoses; and fractures, all sites) are groupings of more detailed diagnoses, they are presented as single categories without showing all of the specific diagnostic inclusions.

The number and rate of discharges and average length of stay for each ICD-9-CM diagnostic chapter and selected categories are shown by sex and age in tables 4-6. The most common diagnostic category for all patients was females with deliveries. This was followed by the diagnostic categories heart disease and malignant neoplasms. Excluding females with deliveries, these last two non-sex-specific diagnostic categories were also the most common first-listed diagnoses for each sex.

The most frequent first-listed diagnoses for 1983 varied for the different age groups. For patients under 15 years of age, the most frequent diagnoses were acute respiratory infections, except influenza and chronic disease of tonsils and adenoids. Excluding females with deliveries, the two most frequent diagnoses for patients 15-44 years of age were abortions and ectopic and molar pregnancies, and factures, all sites. Patients 45-64 years of age were hospitalized most frequently for heart disease. The most common diagnoses for patients 65 years of age and over were heart disease and malignant neoplasms.

The average length of stay for all patients ranged from a low of 1.8 days for the diagnostic category chronic disease of tonsils and adenoids, 1.9 days for patients admitted for sterilization, and 2.0 days for the diagnostic category abortions and ectopic and molar pregnancies to a high of 18.0 days for the diagnostic category fracture of neck of femur. Although the overall average length of stay for females was shorter than that for males, females stayed in the hospital longer than males for many of the specific diagnostic categories examined in this report. Some categories for which women had substantially longer stays included psychosis; arthropathies and related disorders; intervertebral disc disorders; and fractures, all sites.

The average length of stay increased with increasing age for most categories of diagnoses shown. Overall, the average length of stay ranged from 4.6 days for patients under 15 years of age to 9.7 days for patients 65 and over. By diagnosis, stays were highest (when compared with the average length of stay) for patients with fracture of neck of femur (18.0 days) and psychoses (15.4 days).

Utilization by procedures

One or more surgical or nonsurgical procedures were performed for an estimated 21.2 million of the 38.8 million inpatients discharged from short-stay hospitals during 1983. A total of 35.9 million procedures, or an average of 1.8 per patient who underwent at least one procedure, were recorded in 1983.

Procedures are grouped in the tables of this report by the ICD-9-CM procedure chapters. Selected procedures within these chapters also are presented by specific categories. Some of these categories (such as extraction of lens, open heart surgery, and hysterectomy) are presented as single categories although they may be divided into more precise subgroups.

Operations on the digestive system ranked first among the surgical and nonsurgical procedures (5.8 million) performed during 1983. These were followed by miscellaneous diagnostic and therapeutic procedures (6.3 million).

When grouped by chapters, miscellaneous diagnostic and therapeutic procedures with 6.3 million procedures ranked first among the surgical and nonsurgical procedures performed during 1983. These were followed by operations on the digestive system with 5.8 million procedures performed. Other leading procedures were obstetrical procedures and operations on the female genital organs each with 3.9 million procedures and operations on the musculoskeletal system with 3.8 million procedures. Approximately two thirds of all procedures performed in 1983 were included in these five ICD-9-CM procedure chapters.

The number and rate of all-listed procedures in 1983 for each ICD-9-CM procedure chapter and selected procedure categories are shown by sex and age in tables 7 and 8. Of the 35.9 million procedures performed during 1983, 14.0 million

were for males and 21.9 million were for females. The corresponding rates per 1,000 population were 155 for both sexes, 125 for males, and 183 for females. Of the procedures shown in table 7, the most common ones for males were endoscopies on the urinary system (natural orifice) and repair of inguinal hernia; the most frequently performed procedures for females were episiotomy and cesarean section.

The rate of procedures per 1,000 population increased with advancing age from 44 for patients under 15 years to 358 for patients 65 years of age and over. The most frequently performed procedures for patients under 15 years of age were ton-sillectomy with or without adenoidectomy; for patients 15–44 years of age, episiotomy and cesarean section; for patients 45–64 years of age, arteriorgraphy and angiocardiography, and cardiac catheterization; and for patients 65 years of age and over, extraction of lens, insertion of prosthetic lens (pseudo-phakos), and endoscopies of the urinary system (natural orifice).

TABLE 1. NUMBER OF INPATIENTS DISCHARGED FROM SHORT-STAY HOSPITALS BY SELECTED CHARACTERISTICS: UNITED STATES, 1983

(DISCHARGES FROM NONFEDERAL HOSPITALS. EXCLUDES NEWBORN INFANTS)

SELECTED CHARACTER ISTIC	BOTH SEXES	MALE	FEMALE	
	NUMBER OF PATIENTS DISCHARGED IN THOUSANDS			
TOTAL	38,783	15,573	23,210	
AGE				
UNDER 15 YEARS	3,654 15,269 8,558 11,302	2 •084 4 •524 4 •159 4 •806	1,570 10,745 4,400 6,496	
REGION				
NORTHEASTNORTH CENTRALSOUTHWEST	7,793 10,492 13,884 6,614	3,202 4,310 5,422 2,640	4,591 6,183 8,462 3,974	
6-99 BEDS	6,336 7,481 5,990 10,041 8,934	2,523 2,955 2,454 4,024 3,615	3,812 4,526 3,536 6,017 5,319	
OWNERSHIP				
NONPROFITSTATE AND LOCAL GOVERNMENTPROPRIETARY	26,726 8,190 3,867	10,665 3,336 1,572	16,061 4,854 2,295	

TABLE 2. RATE OF INPATIENTS DISCHARGED FROM SHORT-STAY HOSPITALS, BY AGE, GEOGRAPHIC REGION, AND SEX: UNITED STATES, 1983

(DISCHARGES FROM NONFEDERAL HOSPITALS. EXCLUDES NEWBORN INFANTS)

AGE AND REGION	BOTH SEXES	MALE	FEMALE
		ATIENTS 000 POPU	DISCHARGED LATION
TOTAL	167.0	138.8	193.2
AGE			
UNDER 15 YEARS	70.8 140.3 192.2 412.7	79.0 84.3 196.6 437.2	62.3 194.8 188.3 396.3
REGION			
NORTHEAST NORTH CENTRAL SOUTH WEST	157.7 178.4 176.5 145.6	136.0 151.1 143.4 118.5	177.5 204.1 207.3 171.7

TABLE 3. AVERAGE LENGTH OF STAY FOR INPATIENTS DISCHARGED FROM SHORT-STAY HOSPITALS BY SELECTED CHARACTERISTICS: UNITED STATES, 1983

(DISCHARGES FROM NONFEDERAL HOSPITALS. EXCLUDES NEWBORN INFANTS)

SELECTED CHARACTERISTIC	BO TH SE XE S		
	AVERAGE LENGT	H OF STAY	IN DAYS
T OT AL	6.9	7.4	6.6
AGE			
UNDER 15 YEARS	5.0 7.6	4.5 6.2 7.6 9.6	4.6 4.6 7.6 9.8
REGION			
NORTHEASTNORTH CENTRALSOUTHWEST	8.1 7.2 6.6 5.9	8.5 7.5 7.1 6.4	7.8 6.9 6.2 5.5
6-99 BEDS	5.8 6.4 6.8 7.3 7.8	5.9 6.9 7.1 7.8 8.6	5.7 6.1 6.6 7.0 7.3
OWNERSHIP			
NONPROFITSTATE AND LOCAL GOVERNMENT	7.1 6.3 6.8	7.6 6.7 7.1	6.8 6.0 6.5

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TABLE 4. NUMBER OF INPATIENTS DISCHARGED FROM SHORT-STAY HOSPITALS, BY CATEGORY OF FIRST-LISTED DIAGNOSIS, SEX, AND AGE: UNITED STATES, 1983

(DISCHARGES FROM NONFEDERAL HOSPITALS. EXCLUDES NEWBORN INFANTS. DIAGNOSTIC GROUPINGS AND CODE NUMBER INCLUSIONS ARE BASED ON THE INTERNATIONAL CLASSIFICATION OF DISEASES, 9TH REVISION, CLINICAL MODIFICATION)

CATEGORY OF CARRY 1		51	X		A	GE	
CATEGORY OF FIRST-LISTED DIAGNOSIS AND ICD-9-CM CODE	TOTAL	MALE	FEMALE	UNDER 15 YEARS	15-44 YEARS	45-64 YEARS	65 YEARS
		NU MB ER	OF PATIEN	TS DISCHARG	ED IN THO	USANDS	
LL CONDITIONS	38,783	15,573	23,210	3, 654	15,269	8,558	11,302
NFECTIOUS AND PARASITIC DISEASES	677	319	358	208	237	91	142
EOPL AS MS	2,642	1,136	1,506	70	469	918	1,185
MALIGNANT NEOPLASMS	2+024	993	1,031	44 *	197 12	729 151	1,053
MALIGNANT NEOPLASM OF BREAST174-175,198.81	244	*	242	*	35	1 02	107
NDOCRINE, NUTRITIONAL AND METABOLIC DISEASES, AND IMMUNITY DISORDERS240-279 DIABETES MELLITUS250	1,207 675	431 25 <i>5</i>	776 420	74 27	295 156	365 237	474 255
ISEASES OF THE BLOOD AND BLOOD-FORMING ORGANS280-289	360	152	209	61	87		
ENTAL DISORDERS290-319						63	149
PSYCHUSES	1,701 576	874 266	827 311	49 *5	950 294	424 152	277 125
NEUROTIC AND PERSONALITY DISORDERS	264 388	88 295	176 93	*5 *	164 227	60 131	34 29
ISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS	1,878	795	1,083	313	355	384	825
DISEASES OF THE CENTRAL NERVOUS SYSTEM320-336,340-349 CATARACT366	429	210	219	63	140	90	136
DISEASES OF THE EAR AND MASTOID PROCESS380-389	594 360	21 1 16 7	382 193	* 186	15 64	98 56	478 54
ISEASES OF THE CIRCULATORY SYSTEM	5,654	2.896	2, 758	38	530	1,842	3,244
ESSENTIAL HYPERTENSION	330	129	201	*	57	138	135
ACUTE MYOCARDIAL INFARCTION410	3,597 676	1,911 424	1,686 253	25 *	256 43	1 •231 251	2,085 382
ATHEROSCLEROTIC HEART DISEASE414.0 OTHER ISCHEMIC HEART DISEASE411-413,414.1-414.9	466	261	205	*	12	151	303
CONGESTIVE HEART FAILURE428.0	938 464	544 208	394 255	*	68 ≉8	437 89	430 363
CEREBROVASCULAR DISEASE430-438	860	405	455	*	30	1 85	641
SEASES OF THE RESPIRATORY SYSTEM	3,632	1,833	1,799	1,076	753	680	1,123
ACUTE RESPIRATORY INFECTIONS, EXCEPT INFLUENZA460-465 CHRONIC DISEASE OF TONSILS AND ADENOIDS	564	28 7	277	294	90	63	117
PNEUMONIA, ALL FORMS480-486	397 837	180 426	217 411	270 242	122 122	* 138	* 335
ASTHM A493	459	190	269	136	110	119	94
SEASES OF THE DIGESTIVE SYSTEM	4,530	2,110	2,420	460	1,429	1,236	1,405
ULCERS OF THE STOMACH AND SMALL INTESTINE531-534 GASTRITIS AND DUDDENITIS535	35 2	176	177		84	120	147
APPENDIC IT IS	288 261	120 147	169 114	16 70	117 148	91 26	65 17
INGUINAL HERNIA	477	429	48	74	128	150	125
NONINFECTIOUS ENTERITIS AND COLITIS555-556,558 CHOLELITHIASIS	584 482	236 142	348 340	186 *	189 154	87 160	122 167
SEASES OF THE GENITOURINARY SYSTEM580-629							
CALCULUS OF KIDNEY AND URETER592	3,311 330	1,080 232	2, 231 98	136 *	1,647 165	760 107	768 55
DISORDERS OF MENSTRUATION AND OTHER ABNORMAL VAGINAL BLEEDING	321	_	321	*	252	44	*
	321	_	321	•	252	66	*
IMPLICATIONS OF PREGNANCY, CHILDBIRTH. NO THE PUERPERIUM	1,048		1, 048	*5	1.041	*	
ABORT IONS AND ECTOPIC AND MOLAR PREGNANCIES630-639	49 2	•••	492	*	488	*	•••
SEASES OF THE SKIN AND SUBCUTANEOUS TISSUE680-709	577	274	30 3	62	216	145	153
SEASES OF THE MUSCULOSKELETAL SYSTEM							
NO CONNECTIVE TISSUE710-739 ARTHRCPATHIES AND RELATED DISORDERS710-719	2,432 576	1,025 229	1,407 347	73 19	984 195	774 165	603 196
INTERVERTEBRAL DISC DISORDERS722	473	266	208	*	254	161	57
NGENITAL ANOMALIES740-759	356	185	171	192	92	47	25
RTAIN CONDITIONS ORIGINATING IN THE ERINATAL PERIOD760-779	209	117	92	209	*	*	_
MPTOMS, SIGNS, AND ILL-DEFINED CONDITIONS780-799							
	585	279	306	104	251	140	90
JURY AND POISONING	3,450 1,090	1,906 543	1,544 547	451 147	1,617 380	599 167	783 396
FRACTURE OF NECK OF FEMUR820	230	59	171	*	*9	22	196
SPRAINS AND STRAINS OF BACK (INCLUDING NECK)846-847 INTRACRANIAL INJURIES (EXCUDING THOSE WITH	311	154	157	•	192	79	37
SKULL FRACTURE)	275	171	105	69	145	30	31
	309	232	77	45	193	41	31
PPLEMENTARY CLASSIFICATIONS	4,532	159	4,373	73	4,317	87	54
FEMALES WITH DELIVERIES	146 3,976	*	142 3, 976	* 11	143 3,962	*	*

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

TABLE 5. RATE OF INPATIENTS DISCHARGED FROM SHORT-STAY HOSPITALS, BY CATEGORY OF FIRST-LISTED DIAGNOSIS, SEX, AND AGE: UNITED STATES, 1983

(DISCHARGES FROM NONFEDERAL HOSPITALS. EXCLUDES NEWBORN INFANTS. DIAGNOSTIC GROUPINGS AND CODE NUMBER INCLUSIONS ARE BASED ON THE INTERNATIONAL CLASSIFICATION OF DISEASES, 9TH REVISION, CLINICAL MODIFICATION)

		SEX		AGE			
CATEGORY OF FIRST-LISTED DIAGNOSIS AND ICO-9-CM CODE		MALE	FEMALE	UNDER 15 YEARS	15-44 YEARS	45-64 YEARS	65 YEARS AND OVER
		RATE OF IN	PATIENTS D	ISCHARGED P	ER 10,000	POPULATIO	N
LL CONDITIONS	1,669.6	1,388.3	1,932.3	708.3	1.403.5	1,922.3	4.127.1
NFECTIOUS AND PARASITIC DISEASES001-139	29 . 2	28.4	29.8	40.4	21.8	20.4	51.7
MALIGNANT NEOPLASMS	113.7 87.1	101.3 88.5	125.4 85.8	13.6 8.6	43.1 18.1	206.2 163.8	432.9 384.5
BRONCFUS, AND LUNG	14.6 10.5	18.7	10.8 20.1	*	1.1 3.2	34.0 22.9	64.1 39.1
NDOCRINE, NUTRITIONAL AND METABOLIC DISEASES, AND IMMUNITY DISORDERS240-279 DIABETES MELLITUS250	52 • 0 29 • 0	38.4 22.7	64.6 34.9	14.3 5.2	27.1 14.3	82.1 53.2	173.0 93.2
ISEASES OF THE BLOOD AND BLOOD-FORMING ORGANS280-289	15.5	13.5	17.4	11.9	8.0	14.2	54.5
ENTAL DISORDERS290-319	73.2	77.9	68.8	9.5	87.3	95.2	101.3
PSYCHOSES	24.8 11.3 16.7	23.7 7.8 26.3	25.9 14.7 7.7	*1.0 *1.1 *	27.1 15.1 20.9	34.1 13.5 29.4	45.6 12.3 10.5
ISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS320-389 DISEASES OF THE CENTRAL NERVOUS SYSTEM320-336,340-349	80.8 18.5	70.9 18.7	90.1 18.3	60.7 12.2	32.7 12.9	86.3 20.2	301.4 49.7
CATARACT	25.6 15.5	18.8 14.9	31.8 16.1	* 36.0	1.4 5.9	21.9 12.5	174.6 19.9
ISEASES OF THE CIRCULATORY SYSTEM	243.4	258.2	229.6	7.4	48.7	413.7	1,184.7
ESSENTIAL HYPERTENSION401 HEART DISEASE391-392.0,393-398,402,404,410-416,420-429	14.2 154.9	11.5 170.4	16.7 140.4	* 4.9	5.3 23.5	30.9 276.5	49.3 761.2
ACUTE MYOCARDIAL INFARCTION410	29.1 20.1	37.8 23.3	21.1 17.1	*	3.9 1.1	56.4 33.9	139.6 110.6
ATHEROSCLEROTIC HEART DISEASE411-413,414-1-414-9	40 .4	48.5	32.8	*	6.3	98.2	156.8
CONGESTIVE HEART FAILURE428.0 CEREBROVASCULAR DISEASE430-438	20 •0 37 •0	18.6 36.1	21.3 37.9	*	*0.8 2.8	20.1 41.5	132.7 234.1
ISEASES OF THE RESPIRATORY SYSTEM460-519	156.4	163.4	149.8	208.5	69.2	152.8	410.0
ACUTE RESPIRATORY INFECTIONS, EXCEPT INFLUENZA	24 • 3 17 • 1	25.6 16.0	23.1 18.1	57.0 52.4	8.2 11.2	14.1	42.9
PNEUMONI A, ALL FORMS	36.0 19.8	38.0 17.0	34.2 22.4	47.0 26.4	11.2 10.1	30.9 26.7	122 • 2 34 • 2
SEASES OF THE DIGESTIVE SYSTEM520-579	195.0	188.1	201.5	89.2	131.3	277.6	513.1
ULCERS OF THE STOMACH AND SMALL INTESTINE531-534 GASTRITIS AND DUODENITIS535	15.2 12.4	15.6 10.7	14.7 14.0	* 3.2	7.7 10.7	26.9 20.4	53.5 23.7
APPENDICIT IS540-543	11.2	13.1	9.5	13.7	13.6	5.8	6.3
INGUINAL HERNIA550 NONINFECTIOUS ENTERITIS AND COLITIS555-556,558	20 •5 25 •1	38.3 21.1	4.0 29.0	14.4 36.1	11.8 17.4	33.6 19.6	45 - 8 44 - 5
CHOLELITHIASIS	20.8	12.7	28.3	*	14.2	36.0	60.8
ISEASES OF THE CENITOURINARY SYSTEM580-629 CALCULUS OF KIDNEY AND URETER592 DISORDERS OF MENSTRUATION AND OTHER	142.5 14.2	96.3 20.7	185.7 8.1	26.3 *	151.4 15.2	170.7 24.1	280.5 20.2
ABNORMAL VAGINAL BLEEDING626	13.8	-	26.7	*	23.2	14.9	•
OMPLICATIONS OF PREGNANCY, CHILDBIRTH, AND THE PUERPERIUM	45.1 21.2	•••	87.2 40.9	*0.9 *	95.7 44.9	*	•••
ISEASES OF THE SKIN AND SUBCUTANEOUS TISSUE680-709	24 •9	24.5	25.2	12.1	19.9	32.7	56.0
ISEASES OF THE MUSCULOSKELETAL SYSTEM		21. (14.1	90.4	173.8	220.0
AND CONNECTIVE TISSUE710-739 ARTHROPATHIES AND RELATED DISORDERS710-719	104.7 24.8	91.4 20.4	117.1 28.9	14.1 3.8	17.9	37.1	71.7
INTERVERTEERAL DISC DISORDERS	20 • 4 15 • 3	23.7 16.5	17.3	* 37.2	23.4 8.5	36.3	20.9 9.1
ONGENITAL ANOMALIES740-759 ERTAIN CONDITIONS ORIGINATING IN THE	15.5	10.5	14.2	31.02	0.0	10.0	
PERINATAL PERIOD	9.0	10.5	7.6	40.4	*		-
YMPTOMS. SIGNS, AND ILL-DEFINED CONDITIONS780-799	25.2	24.9	25.5	20.2	23.0	31.4	32.9
NJURY AND POISONING	148.5 46.9	169.9 48.4	128.6 45.6	87.4 28.5	148.7 34.9	134.5 37.5	286.0 144.7
FRACTURE OF NECK OF FEMUR	9.9 13.4	5.2 13.8	14.3 13.1	*	*0.9 17.6	4.9 17.8	71.5 13.4
INTRACRANIAL INJURIES (EXCUDING THOSE WITH SKULL FRACTURE)850-854	11.8	15.2	8.7	13.3 8.7	13.3 17.7	6•9 9•3	11.4 11.2
LACERATIONS AND OPEN WOUNDS	13.3	20.7	6.4 364-1	14.2	396.9	19.5	19.9
UPPLEMENTARY CLASSIFICATIONS	195.1	14.2	364.1 11.8	*	13.2	19-5	
FEMALES WITH DELIVERIES27	171.2	•••	331.0	2.1	364.2	*	

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

TABLE 6. AVERAGE LENGTH OF STAY FOR INPATIENTS DISCHARGED FROM SHORT-STAY HOSPITALS, BY CATEGORY OF FIRST-LISTED DIAGNOSIS, SEX, AND AGE: UNITED STATES, 1983

(DISCHARGES FROM NONFEDERAL HOSPITALS. EXCLUDES NEWBORN INFANTS. DIAGNOSTIC GROUPINGS AND CODE NUMBER INCLUSIONS ARE BASED ON THE INTERNATIONAL CLASSIFICATION OF DISEASES, 9TH REVISION, CLINICAL MODIFICATION)

CATEGORY OF FIRST-LISTED DIAGNOSIS AND ICD-9-CM CODE	TOTAL	MALE	FEMALE	UNDER 15	15-44	45-64	65 YEARS
				YEARS	YE AR S	YEARS	AND OVER
		,	VERAGE LE	NGTH OF STA	Y IN DAYS		
	6.9	7 • 4	6.6	4.6	5.0	7.6	9.7
FECTIOUS AND PARASITIC DISEASES	6.6	6.3	6.8	4.2	4.9	8.3	11.7
OPLASMS140-239	9.6	10.2	9.2	5.0	6.6	9.1	11.4
MALIGNANT NEOPLASM S	10.7 10.5 9.4	10.7 10.3	10.6 10.7 9.4	5.7 * *	8.1 7.9 7.4	9.9 10.0 8.9	11.9 11.1 10.5
MALIGNANT NEOPLASM OF BREAST	7.4	•	7.4				
IDDCRINE, NUTRITIONAL AND METABOLIC DISEASES, ND IMMUNITY DISORDERS240-279 DIABETES MELLITUS250	8 • 7 9 • 5	8.7 9.3	8.6 9.6	5.5 6.6	6.8 7.3	8.4 9.3	10.5 11.3
SEASES OF THE BLOOD AND BLOOD-FORMING ORGANS280-289	6.7	5 •9	7.2	4.2	6.3	6.7	7.9
NTAL DISORDERS290-319	12.4	12.0	12.9	16.3 *15.4	12.1 15.5	11.9 14.9	13.5 16.0
PSYCHOSES	15.4 10.1 11.5	14.1 10.3 11.2	16.6 10.0 12.5	*15.9 *	10.2	9.8 10.8	9.3 12.6
SEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS320-389	5.0	5.4	4.7	3.2	5.6 8.2	5.5 11.0	5.2 14.2
DISEASES OF THE CENTRAL NERVOUS SYSTEM320-336,340-349 CATARACT366	2.5	11.3 2.6	9.7 2.5	6.9 *	2.4	2.4	2.6
DISEASES OF THE EAR AND MASTOID PROCESS	3.0	2.7	3.3	2.3	2.9	3.5	5.1
ISEASES OF THE CIRCULATORY SYSTEM	6.3	8 • 8 5 • 8	9.4 6.7	6.3 *	6.5 5.2	8.1 5.8	10.1 7.4
HEART DISEASE391-392.0,393-398,402,404,410-416,420-429	8.6	8.2 10.8	8.9 11.1	6∙5 *	6•4 9•4	7.7 10.7	9.4 11.2
ACUTE MYOCARCIAL INFARCTION410 ATHEROSCLEROTIC HEART DISEASE414-0	10.9 8.4	7.6	9.4	*	4.7	6.4	9.5
OTHER ISCHEMIC HEART DISEASE411-413,414.1-414.9	6 • 9	6.5	7.4	*	5.7 *5.9	6.4 9.3	7.6 9.9
CONGESTIVE HEART FAILURE428-0 CEREBROVASCULAR DISEASE430-438	9.7 11.7	9.4 11.3	9.9 12.2	*	12.0	10.7	12.1
ISEASES OF THE RESPIRATORY SYSTEM460-519		6-1	6.2	3.4	4.2	7.2	9.7
ACUTE RESPIRATORY INFECTIONS, EXCEPT INFLUENZA460-466	4.9	4.5	5.3 1.9	3.4 1.7	4.1 2.0	6•4 *	8.6
CHRONIC DISEASE OF TONSILS AND ADENOIDS474 PNEUMONIA, ALL FORMS480-486	1 • 8 8 • 0	1.8 7.8	8.3	4.8	6.3	8.6	10.8
ASTHMA493	5.5	4.9	5.8	3.7	4.5	6.4	7.9
ISEASES OF THE DIGESTIVE SYSTEM	6.6	6.0 7.4	7.0 7.9	3 - 6	5.2 5.3	6.7 6.9	8.8 9.7
ULCERS OF THE STOMACH AND SMALL INTESTINE531-534 GASTRITIS AND CUDDENITIS535	5.3	4.4	6.0	3.7	4.9	5.0	6.9
APPENDICITIS540-543	5.4	4.9	5.9 4.6	4.8 1.7	4.6 3.8	7•1 4•2	11.4 5.6
INGUINAL HERNIA	4.1 5.1	4.0 5.0	5.3	3.6	5.0	5.7	7.3
CHOLEL ITHIASIS574	8.7	9.4	8.3	*	6-8	8.1	10.9
ISEASES OF THE GENITOURINARY SYSTEM	5.6	6.3	5 • 2 5 • 2	3.6 *	4.5 3.5	5.7 5.0	8 • 2 6 • 6
CALCULUS OF KIDNEY AND URETER		4•2 -	3.6	*	3.6	3.9	*
OMPLICATIONS OF PREGNANCY, CHILDBIRTH,							
AND THE PUERPER IUM	2.5 2.0	•••	2.5 2.0	*1.9 *	2.5 2.0	*	•••
ISEASES OF THE SKIN AND SUBCUTANEOUS TISSUE		7.8	8.4	3.9	6.5	8.4	11.9
IS EAS ES OF THE MUSCULOSKELETAL SYSTEM							
AND CONNECTIVE TISSUE710-739	7•3 8•3	6.8 7.0	7.7 9.1	5.8 5.9	5.8 4.7	7.5 9.2	9.8 11.2
ARTHROPATHIES AND RELATED DISORDERS	8.2	7.2	9.4	*	7.6	8.5	9.9
ONGENITAL ANOMALIES740-759	5.9	5.8	6.0	5.6	4.9	7.7	8.4
ERTAIN CONDITIONS ORIGINATING IN THE PERINATAL PERIOD	12.8	12.7	12.9	12.8	*	*	-
YMPTOMS, SIGNS, AND ILL-DEFINED CONDITIONS780-799		4.1	4.3	3.2	3.6	4.4	6.5
NULRY AND POISONING800-999	7.2	6.4	8.2	4.3	5.7	7.4	11.7
FRACTURES, ALL SITES800-829	10.2	8.9 19.7	11.5	5.3 *	8.1 *24.7	9.1 16.6	14.5 17.9
FRACTURE OF NECK OF FEMUR820 SPRAINS AND STRAINS OF BACK (INCLUDING NECK)846-847	18.0	18.7 5.9	17.8 7.3	*	6.3	7.0	7.6
INTRACRANIAL INJURIES (EXCUDING THOSE WITH		E 7	5.9	2.9	5.5	7.8	9.0
SKULL FRACTURE)850-854 LACERATIONS AND OPEN WOUNDS870-904	5.5 4.5	5.3 4.3	5.9 5.1	3.6	4.3	5.0	6.7
ILPPLEMENTARY CLASSIFICATIONSV01-V82	3.5	4.3	3.5	4.3	3.5	4.7	5.3
PERSONS ADMITTED FOR STERILIZATION	1.9	*	1.9 3.6	* 3.0	1.9 3.6	*	*

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

SABLE 7. NUMBER OF ALL-LISTED PROCEDURES FOR INPATIENTS DISCHARGED FROM SHORT-STAY HOSPITALS, BY PROCEDURE CATEGORY, SEX, AND AGE: "NITED STATES, 1983

JISCHARGES FROM NONFEDERAL HOSPITALS. EXCLUDES NEWBORN INFANTS. PROCEDURE GROUPINGS AND CODE NUMBER INCLUSIONS ARE BASED ON THE INTERNATIONAL CLASSIFICATION OF DISEASES, 9TH REVISION, CLINICAL MODIFICATION)

		SI	ΕX	AGE			
PROCEDURE CATEGORY AND ICD-9-CM CODE	TOTAL	MALE	FEMALE	UNDER 15 YEARS	15-44 YEAR S	45-64 YEARS	65 YEARS AND OVER
		NUMBER C	F ALL-LIS	TED PROCEDU	RES IN TH	OUSANDS	
ALL PROCEDURES	35,939	13,993	21,946	2, 293	15,214	8,615	9,816
OPERATIONS ON THE NERVOUS SYSTEM	923	453	470	143	332	257	192
OPERATIONS ON THE ENDOCRINE SYSTEM	105	28	76	* 5	41	36	22
OPERATIONS ON THE EYE	1,558 630	60 2 22 7	956 403	67 *5	119 18	295 106	1+077 501
INSERTION OF PROSTHETIC LENS (PSEUDOPHAKOS)	516 372	184 206	333 166	220	*7 83	82 43	427 27
MYRINGOTOMY20.0	187	108	79	169	10	*5	*
OPERATIONS ON THE NOSE, MOUTH, AND PHARYNX	1,503 263 424	729 125 187	774 138 237	451 13 279	691 188 140	223 46 * 5	138 15 *
OPERATIONS ON THE RESPIRATORY SYSTEM30-34 BRONCHOS COPY	970 229	585 137	385 91	74 17	182 34	335 76	378 102
OPERATIONS ON THE CARDIOVASCULAR SYSTEM	1,908	1,147	761	117	232	784	775
OPEN HEART SURGERY	275	194	82	18	21	148	88
DIRECT HEART REVASCULARIZATION	191 508	145 326	46 182	* 32	11 61	112 277	67 138
PACEMAKER INSERTION, REPLACEMENT, REMOVAL, REPAIR37.7-37.8	189	95	95	-	* 9	31	150
OPERATIONS ON THE HEMIC AND LYMPHATIC SYSTEM40-41	365	181	185	23	85	106	151
**************************************	5 • 847 246	2,506 107	3,341 139	281 *9	2,003 52	1,596 91	1,966 95
OF INTESTINE43.5-43.8,45.6-45.8 APPENDECTOMY, EXCLUDING INCIDENTAL47.0	248 282	114 147	134 135	*5 75	28 165	68 28	148 15
HEMORRHO IDECTOMY49.43-49.46	134	76	59	_	64	50	21
CHOLECYSTECTOMY51.2 REPAIR OF INGUINAL HERNIA53.0-53.1	48 7 510	147 456	340 54	* 81	167 134	162 155	156 140
DIVISION OF PERITONEAL ADHESIONS54.5	298	38	260	*	180	58	57
OPERATIONS ON THE URINARY SYSTEM	1,872 800	1,098 532	774 268	95 31	422 135	521 222	834 411
DILATION OF URETHRA58.6	163	80	83	13	37	43	70
OPERATIONS ON THE MALE GENITAL ORGANS	845	845	•••	126	131	178	410
PROST ATECTOMY60.2-60.6 CIRCUMCISION64.0	35 7 91	357 91	•••	53	* 19	81 12	274 *8
OPERATIONS ON THE FEMALE GENITAL ORGANS	3,872 512	•••	3,872 512	10 *	2,534 314	688 153	240 44
OF FALLCPIAN TUBES66.2-66.3	568	•••	568	*	564	*	_
HYSTERECTOMY	672 95	•••	672 95	- *	440 93	180	53 •••
AFTER DELIVERY OR ABORTION	28 1 63 2	•••	281 632	*	281 421	* 166	44
REPAIR OF CYSTOCELE AND RECTOCELE70.5	150	•••	150	-	58	56	35
OBSTETRICAL PROCEDURES72-75 EPISIOTOMY WITH OR WITHOUT FORCEPS	3,914	•••	3,914	10	3,902	*	•••
OR VACUUM EXTRACTION72.1,72.21,72.31,72.71,73.6 CESAREAN SECTION	1,943 808	•••	1,943 808	*6 *	1,937 805	*	•••
REPAIR OF CURRENT OBSTETRIC LACERATION	479	•••	479	*	478	-	•••
OPERATIONS ON THE MUSCULOSKELETAL SYSTEM	3,762	1,826	1,936	249	1,719	964	830
OPEN REDUCTION OF FRACTURE 76.72, 76.74,76.76.79,79.2-79.3,79.5-79.6	423	218	205	30	190	70	133
OTHER RECUCTION OF FRACTURE:	237	139	97	70	es	36	42
AND SPINAL FUSION	258 147	142 97	116 50	*5 *	143 91	89 37	21 15
ARTHROPLASTY AND REPLACEMENT OF KNEE81.41-81.47 ARTHROPLASTY AND REPLACEMENT OF HIP	147 159	79 51	68 108	* -	74 *7	29 34	`41 118
OPERATIONS ON THE INTEGUMENTARY SYSTEM	1,830 116 154	709 *6 88	1,122 110 66	121 * 18	740 17 55	559 54 42	410 44 40
AISCELL ANEOUS DIAGNOSTIC AND THERAPEUTIC PROCEDURES87-99	6,292	3,077	3,215	302	1,557	2,027	2,366
COMPUTERIZED AXIAL TOMOGRAPHY87.03,87.41,87.71,88.01,88.38 PYELOGRAM	871 453	431 251	440 202	46 18	212 145	240 137	373 153
USING CONTRAST MATERIAL	825 695	50 8 26 4	317 431	16 31	104 225	389 189	316 249
RADIOISOTOPE SCAN92.0-92.1	685	319	367	14	119	230	322

TABLE 8. RATE OF ALL-LISTED PROCEDURES FOR INPATIENTS DISCHARGED FROM SHORT-STAY HOSPITALS, BY PROCEDURE CATEGORY, SEX, AND AGE: UNITED STATES, 1983

(DISCHARGES FROM NONFEDERAL HOSPITALS. EXCLUDES NEWBORN INFANTS. PROCEDURE GROUPINGS AND CODE NUMBER INCLUSIONS ARE BASED ON THE INTERNATIONAL CLASSIFICATION OF DISEASES, 9TH REVISION, CLINICAL MODIFICATION)

		SE	ΕX	AGE			
PROCEDURE CATEGORY AND ICD-9-CM CODE	TOTAL	MALE	FEMALE	UNDER 15 YEARS	15-44 YEAR S	45-64 YEARS	65 YEARS
	R.	ATE OF ALL-	LISTED PRO	CEDURES PE	R 100,000	POPULATION	N
ALL PROCEDURES	15,471.8	12,474.5	18,271.1	4,445.7	13,984.4	19,351.1	35.846.6
OPERATIONS ON THE NERVOUS SYSTEM	397.5	404.1	391.4	276.3	305• 0	577.7	700.4
OPERATIONS ON THE ENCOCRINE SYSTEM	45 •1	25.3	63.5	*10.1	37.9	80.9	81.3
OPERATIONS ON THE EYE	670.9	537.1					
EXTRACTION OF LENS	271.1 222.3	202.2 163.7	795.8 335.5 277.1	129.5 *9.8 *	109.4 16.6 *6.8	663.7 238.4 183.3	3,933.4 1,827.4 1,560.5
DPERATIONS ON THE EAR	1 60 • 2 80 • 6	184•1 96•3	138.0 65.8	425.7 326.7	76.7 9.5	95.7 *11.0	96.
DPERATIONS ON THE NOSE, MOUTH, AND PHARYNY 21-20	646.9	649.9					
RHINOPLASTY AND REPAIR OF NOSE	113.1	111.4	644.1 114.8	874.9 25.2	634.7 173.1	500.4 104.3	504.0 55.0
	182.7	167.1	197.3	541.2	128.3	*10.9	;
PERATIONS ON THE RESPIRATORY SYSTEM30-34 BRONCHOSCOPY33.21-33.23	417.5 98.5	521.5 122.5	320.4 76.0	142.7 33.6	167.6 31.5	753.5 169.7	1,381.7 370.8
DERATIONS ON THE CARDIOVASCULAR SYSTEM	821.3	1,022.4	633.5	227.0	212.9	1,760.7	2,830.
35.53-36.2.36.9.37.10+37.11.37.32-37.32.37.5	118.6	172.7	68.0	35.3	19.4	332.2	322.
DIRECT HEART REVASCULAR IZATION36.1 CARDI AC CATHETER IZATION37.21-37.23	82.4 218.8	129.3 290.4	38.5 151.8	* 62.4	9.7 55.7	252.3 622.9	246 • 3 504 • 3
PACEMAKER INSERTION, REPLACEMENT, REMOVAL, REPAIR37.7-37.8	81.5	84.3	78.9	-	*8.0	69.1	547.0
PERATIONS ON THE HEMIC AND LYMPHATIC SYSTEM40-41	157.3	161.0	153.9	44-0	78.5	238.2	552.
PERATIONS ON THE DIGESTIVE SYSTEM42-54 ESOPHAGOSCOPY AND GASTROSCOPY (NATURAL ORIFICE)42.23,44.13 PARTIAL GASTRECTOMY AND RESECTION	2,517.0 106.0	2,233.9 95.2	2,781.5 116.1	545.0 *17.7	1,841.2 47.6	3,585.7 203.5	7,179. 345.
OF INTESTINE43.5-43.8,45.6-45.8 APPENDECTOMY, EXCLUDING INCIDENTAL47.0	106.9	102.0	111.4	*8.9	25.5	153.4	539.
HEMUKKHUIUEC:0MY49_43_40_46	121.4 57.8	131.5 67.5	112.0 48.8	144.9	151.4 58.8	62.5 111.5	54 • 75 •
CHOLECYSTECTOMY51.2 REPAIR OF INGUINAL HERNIA	209.6 219.5	131.0	283.0	*	153.8	364.1	570.
DIVISION OF PERITONEAL ADHESIONS54.5	128.2	406.7 33.5	44.6 216.6	156-4 *	123.4 165.1	348.5 130.8	510.5 207.
PERATIONS ON THE URINARY SYSTEM55-59	806.0	979.1	644.4	183.2	388.3	1.170.7	3,046.0
ENDOS COPIES (NATURAL ORIFICE)55.21-55.22,56.31,57.32,58.22 DILATION OF URETHRA	344.2 70.4	474.1 71.6	223.0 69.2	60.2 25.3	123.9 34.3	499.7. 96.6	1,501.9 255.9
PERATIONS ON THE MALE GENITAL ORGANS	363.8	753.4	•••	244.7	120.2	400.6	
PROST AT ECTOMY	153.6	318.1	• • •	•••	*	183.0	1,496.4 999.1
	39.3	81.5	•••	102.4	17.4	26.0	*29.2
PERATIONS ON THE FEMALE GENITAL ORGANS	1.666.9 220.5	• • •	3,223.6 426.4	19.8 *	2,697.0 288.7	1,545.0 343.4	875.1 160.5
OF FALLOPIAN TUBES	244.4	• • •	472.7	*	518.6	*	
CURETTAGE OF UTERUS TO TERMINATE PREGNANCY69.01.69.51	289.4 41.0	• • •	559.7 79.3	*	404•1 85•8	404.0 *	192.7
DILATION AND CURETTAGE OF UTERUS AFTER DELIVERY OR ABORTION	121.0	• • •	234.0	*			
DIAGNOSTIC DILATION AND CURETTAGE OF UTERUS	272.1	•••	526.3	*	257.9 387.2	* 372.7	161.1
	64.5	•••	124.8	-	53.5	126.5	129.5
BSTETRICAL PROCEDURES72-75 EPISIOTOMY WITH OR WITHOUT FORCEPS	1,685.1	•••	3,258.7	19.6	3,586.5	*	• • •
OR VACUUM EXTRACTION72.1,72.21,72.31,72.71,73.6 CESAREAN SECTION	836.5 347.6	• • •	1,617.8	*11.6	1,780.1	*	•••
REPAIR OF CURRENT OBSTETRIC LACERATION	206.3	• • •	672.3 399.0	*	740.4 438.9	* -	• • •
PERATIONS ON THE MUSCULOSKELETAL SYSTEM	1,619.5	1,628.3	1,611.4	483.4	1,579.9	2,165.3	3,029.7
76.74,76.76-76.77,76.79,79.2-79.3,79.5-79.6 OTHER REDUCTION OF	182.1	194.1	170.8	58.4	174.6	157.7	484.2
FRACTURE76.70-76.71,76.73,76.75,76.78,79.0-79.1,79.4 EXCISION OR DESTRUCTION OF INTERVENTEBRAL DISC	101.9	124.3	80.9	135.2	81.6	81.0	153.7
AND SPINAL FUSION80.5,81.0 EXCISION OF SEMILUNAR CARTILAGE OF KNEE80.6	111.1 63.4	126.7 86.5	96.5	*10.1	131.5	199.3	76.8
ARTHROPLASTY AND REPLACEMENT OF KNEE	63.2	70.0	41.7 56.9	*	84. 0 68. 4	83.9 65.2	54.9 149.0
ARTHROPLASTY AND REPLACEMENT OF HIP81.5-81.6	68 -4	45.8	89.6	-	*6.7	76.5	429.3
PERATIONS ON THE INTEGUMENTARY SYSTEM	788.0 50.0	631.6 *5.4	934.0 91.7	234.5	680.2 15.6	1.255.7 120.5	1.498.5 162.5
	66.3	78.6	54.8	35.0	50.1	93.8	144.
SCELLANECUS DIAGNOSTIC AND THERAPEUTIC PROCEDURES87-99 COMPUTERIZED AXIAL TOMOGRAPHY87.03,87.41,87.71,88.01,88.38	2,708.7 374.8	2,742.8 384.2	2,676.9	585.3	1,468.3	4,552.3	8,639.7
PYELOGRAM	195.0	223.4	366.1 168.6	88.4 34.2	195.3 133.3	538.1 307.7	1,362.2 560.0
USING CONTRAST MATERIAL88.4-88.5	355.2	453.0	263.9	31.3	95.8	874.2	1,152.4
DIAGNOSTIC ULTRASOUND	299.0	235.0	358.8	60.9	206.9	424.8	909.0

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Symbols

- --- Data not available
- ... Category not applicable
- Quantity zero
- 0.0 Quantity more than zero but less than 0.05
- Z Quantity more than zero but less than 500 where numbers are rounded to thousands
- Figure does not meet standards of reliability or precision
- # Figure suppressed to comply with confidentiality requirements

Technical notes

Source of data

The National Hospital Discharge Survey (NHDS) encompasses patients discharged from short-stay hospitals, exclusive of military and Veterans Administration hospitals, located in the 50 States and the District of Columbia. Only hospitals with six or more beds and an average length of stay of less than 30 days for all patients are included in the survey. Discharges of newborn infants are excluded from this report.

The universe of the survey consisted of 6,965 short-stay hospitals contained in the 1963 Master Facility Inventory of Hospitals and Institutions. New hospitals were sampled for inclusion in the survey in 1972, 1975, 1977, 1979, 1981, and 1983. In all, 553 hospitals were sampled in 1983. Of these hospitals, 78 refused to participate, and 57 were out of scope. The 418 participating hospitals provided approximately 206,000 abstracts of medical records.

Sample design

All hospitals with 1,000 or more beds in the universe of short-stay hospitals were selected with certainty in the sample. All hospitals with fewer than 1,000 beds were stratified, the primary strata being 24 size-by-region classes. Within each of these 24 primary strata, the allocation of the hospitals was made through a controlled selection technique so that hospitals in the sample would be properly distributed with regard to type of ownership and geographic division. Sample hospitals were drawn with probabilities ranging from certainty for the largest hospitals to 1 in 40 for the smallest hospitals.

Sample discharges were selected within the hospitals using the daily listing sheet of discharges as the sampling frame. These discharges were selected by a random technique, usually on the basis of the terminal digit or digits of the patient's medical record number, a number assigned when the patient was admitted to the hospital. The within-hospital sampling ratio for selecting sample discharges varied inversely with the probability of selection of the hospital.

Data collection and estimation

The sample selection and the transcription of information from the hospital records for abstract forms were performed by the hospital staff or by representatives of the National Center for Health Statistics or by both. The data were abstracted from the face sheets of the medical records. All discharge diagnoses and procedures were listed on the abstract in the order of the principal one, or the first-listed one if the principal one was not identified, followed by the order in which all other diagnoses or procedures were entered on the face sheet of the medical record.

Statistics produced by the NHDS are derived by a complex estimating procedure. The basic unit of estimation is the sample inpatient discharge abstract. The estimating procedure used to produce essentially unbiased national estimates in the NHDS has three principal components: inflation by reciprocals of the probabilities of sample selection, adjustment for nonresponse,

and ratio adjustment to fixed totals. These components of estimation are described in appendix I of two earlier publications.^{4,5}

Sampling errors and rounding of numbers

The standard error is a measure of the sampling variability that occurs by chance because only a sample, rather than an entire universe, is surveyed. The relative standard error of the estimate is obtained by dividing the standard error by the estimate itself and is expressed as a percent of the estimate. Relative standard errors for discharges and first-listed diagnoses are shown in table I, relative standard errors for days of care are shown in table II, and relative standard errors for procedures are shown in table III.

Table I. Approximate relative standard errors of estimated numbers of discharges, first-listed diagnosis, and all-listed diagnoses, by selected patient and hospital characteristics: United States, 1983

	Ownership o		
Size of estimate	Proprietary or State and local government	Nonprofit	All other characteristics
	Rel	ative standar	d error
5,000	29.6	15.7	15.1
10,000	25.3	14.1	12.6
50,000	18.3	11.4	8.8
100,000	16.2	10.5	7.7
300,000	13.7	9.4	6.4
500,000	12.7	8.9	5.9
1,000,000	11.6	8.4	5.3
3,000,000	11.2	7.8	4.6
5,000,000	9.7	7.5	4.3
10,000,000	9.1	7.2	4.0
20,000,000	8.6	6.9	3.8
30,000,000	8.3	6.8	3.6
40,000,000	8.1	6.7	3.5

Table II. Approximate relative standard errors of estimated numbers of days of care by selected patient and hospital characteristics: United States, 1983

Size of estimate	Proprietary hospitals	All other characteristics
10,000	36.6	24.8
30,000	29.1	18.8
50,000	26.2	16.6
100,000	23.0	14.1
300,000	18.8	10.9
500,000	17.2	9.8
1,000,000	15.4	8.4
3,000,000	13.0	6.8
5,000,000	12.1	6.1
10,000,000	11.0	5.4
50,000,000	9.1	4.1
100,000,000	8.4	3.7
200,000,000	7.8	3.3

NOTE: A list of references follows the text.

higher III. Approximate relative standard errors of estimated numbers all-listed procedures: United States, 1983

Size of estimate	Relative standard error
5,000	15.9
10,000	13.7
25,000	11.5
50,000	10.2
100,000	9.2
500,000	7.4
1,000,000	6.8
3,000,000	6.1
5,000,000	5.8
10,000,000	5.4
15,000,000	5.2
20,000,000	5.1
25,000,000	5.0

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

sts of significance

In this report, the determination of statistical inference is based on the two-tailed Bonferroni test for multiple comparisons. Terms relating to differences such as "higher" and "less" indicate that the 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 to be not significant.

Definition of terms

Hospitals and hospital characteristics

Hospitals—Short-stay special and general hospitals have six or more beds for inpatient use and an average length of stay of less than 30 days. Federal hospitals and hospital units of institutions are not included.

Bed size of hospital—Measured by the number of beds, cribs, and pediatric bassinets regularly maintained (set up and staffed for use) for patients; bassinets for newborn infants are not included. In this report the classification of hospitals by bed size reported by the hospitals is based on the number of beds at or near midyear.

Type of ownership of hospital—Determined by the organtion that controls and operates the hospital. Hospitals are uped as follows:

- Voluntary nonprofit—Hospitals operated by a church or another nonprofit organization.
- Government—Hospitals operated by a State or local government.

 Proprietary—Hospitals operated by individuals, partnerships, or corporations for profit.

Terms relating to hospitalization

Patient—A person who is formally admitted to the inpatient service of a short-stay hospital for observation, care, diagnosis, or treatment. In this report the number of patients refers to the number of discharges during the year including any multiple discharges of the same individual from one or more short-stay hospitals. Infants admitted on the day of birth, directly or by transfer from another medical facility, with or without mention of disease, disorder, or immaturity, are included. All newborn infants, defined as those admitted by birth to the hospital, are excluded from this report. The terms "patient" and "inpatient" are used synonymously.

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 total number of patient days accumulated at time of discharge by patients discharged from short-stay hospitals during a year. 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 patient days accumulated at time of discharge by patients discharged from short-stay hospitals during a year to the number of persons in the civilian population on July 1 of that year.

Average length of stay—The total number of patient days accumulated at time of discharge by patients discharged during the year, divided by the number of patients discharged.

Terms relating to diagnoses

Discharge diagnoses—One or more diseases or injuries (or some factor that influences health status and contact with health services which is not itself a current illness or injury) listed by the attending physician or the medical record of a patient. In the NHDS all discharge (or final) diagnoses listed on the face sheet (summary sheet) of the medical record for patients discharged from the inpatient service of short-stay hospitals are transcribed in the order listed. Each sample discharge is assigned a maximum of seven five-digit codes according to ICD-9-CM.³ The number of principal or first-listed diagnoses is equivalent to the number of discharges.

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

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

Procedure—One or more surgical or nonsurgical operations, procedures, or special treatments assigned by the physician to patients discharged from the inpatient service of short-stay hospitals. In the NHDS all terms listed on the face sheet (summary sheet) of the medical record under the captions "operation," "operative procedures," "operations and/or special treatment," and the like are transcribed in the order listed. A maximum of four procedures are coded.

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

Demographic terms

Age—Refers to the age of the patient on the birthday prior to admission to the hospital inpatient service.

Geographic regions—One of the four geographic region of the United States corresponding to those used by the U Bureau of the Census:

Region	States included
Northeast	Maine, New Hampshire, Vermont, Massa- chusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania
North Central	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, Ken- tucky, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma, and Texas
West	Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Wash- ington, Oregon, California, Hawaii, and Alaska

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Suggested Citation

National Center for Health Statistics, E. J. Graves: 1983 Summary: National Hospital Discharge Survey. Advance Data From Vital and Health Statistics, No. 100. DHHS Pub. No. (PHS) 84–1250. Rublic Health Service. Hyattsville, Md., Sept. 28, 1984.

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
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