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Advance Data

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1992 Summary: National Hospital Discharge Survey

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Introduction

During 1992, an estimated 31.0 million inpatients, excluding newborn infants, were discharged from short-stay non-Federal hospitals in the United States. These patients used 190.4 million days of inpatient hospital care. The discharge rate was 122.1 discharges per 1,000 civilian population and the average length of stay was 6.2 days.

These and other statistics presented in this report are based on data collected by means of the National Hospital Discharge Survey (NHDS), a continuous survey that has been conducted by the National Center for Health Statistics (NCHS) since 1965. In 1992, data were abstracted from the medical records of approximately 274,000 patients discharged from 494 short-stay non-Federal hospitals. Beginning in 1988, a new three-stage stratified sample design was put in operation. A brief description of the new design, data collection procedures, and estimation process and definitions of terms used in this report can be found in the section entitled "Technical notes." A description of the development and design of the original NHDS, which was in operation from 1965 to 1987, has been published (1). Differences may exist between data for 1988–92 and earlier years because of the redesign of the survey.

Medical data for hospitalized patients are coded according to the *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD–9–CM) (2). Up to seven diagnoses and four procedures are coded for each discharge. Although diagnoses included in the ICD–9–CM section entitled "Supplementary classification of external causes of injury and poisoning" (codes E800–E999) are used in the NHDS, these diagnoses are excluded from this report. The conditions diagnosed and procedures performed are presented here by chapter of ICD–9–CM. Within these chapters, a few diagnoses and procedures or groups thereof also are shown. These specific categories were selected primarily because of their large estimates or because they are of special interest. More detailed analyses of NHDS data are published in Series 13 of the NCHS *Vital and Health Statistics* reports.

Starting in 1985, some hospitals participating in the NHDS have submitted machine-readable data tapes. In 1992, approximately 34 percent of the hospitals used this method to submit data.

Beginning in 1991 and continuing in 1992, all ICD–9–CM procedure codes were used in the NHDS. In previous years, selected codes were excluded. These were primarily codes for certain miscellaneous diagnostic and therapeutic procedures.

Acknowledgments

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

CENTERS FOR DISEASE CONTROL AND PREVENTION

Table 1. Number of inpatients discharged from short-stay hospitals by selected characteristics: United States, 1992

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

Selected characteristic	Both sexes	Male	Female
	Number of patients discharged in thousands		
Total	30,951	12,406	18,545
Age			
Under 15 years	2,531	1,416	1,115
15–44 years	11,227	3,162	8,064
45–64 years	6,329	3,135	3,194
65 years and over	10,864	4,692	6,172
Region			
Northeast	7,141	2,985	4,156
Midwest	7,121	2,924	4,197
South	11,256	4,472	6,784
West	5,433	2,026	3,407

Table 2. Rate of inpatients discharged from short-stay hospitals by selected characteristics: United States, 1992

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

Selected characteristic	Both sexes	Male	Female
	Rate of patients discharged per 1,000 population		
Total	122.1	100.8	142.2
Age			
Under 15 years	45.2	49.4	40.8
15–44 years	96.0	54.4	137.1
45–64 years	131.0	134.7	127.6
65 years and over	336.5	359.7	320.8
Region			
Northeast	139.9	121.7	156.9
Midwest	117.5	99.4	134.6
South	128.9	106.2	150.1
West	99.5	74.9	123.7

Table 3. Average length of stay for inpatients discharged from short-stay hospitals by selected characteristics: United States, 1992

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

Selected characteristic	Both sexes	Male	Female
	Average length of stay in days		
Total	6.2	6.7	5.8
Age			
Under 15 years	4.9	4.9	4.8
15–44 years	4.3	6.0	3.7
45–64 years	6.3	6.4	6.2
65 years and over	8.2	8.0	8.4
Region			
Northeast	7.2	7.5	6.9
Midwest	6.2	6.7	5.8
South	6.0	6.5	5.6
West	5.2	6.1	4.6

Data highlights

Utilizatior by patient and hospital characteristics

The number, rate, and average length of stay of patients discharged from short-stay non-Federal hospitals are shown by age, geographic region, and sex in tables 1–3. The 31.0 million patients discharged from short-stay hospitals during 1992 comprised an estimated 12.4 million males and 18.5 million females. The rate per 1,000 population for females was 142, which was 41 percent higher than the rate of 101 for males. The number and rate of discharges are higher for females than for males largely because of women 15–44 years of age who are hospitalized for deliveries and pregnancy-related conditions.

The average length of stay was 6.7 days for males and 5.8 days for females during 1992. The average length of stay of the 3.9 million women who were hospitalized for deliveries was 2.6 days. The average length of stay was 4.9 days for patients under 15 years of age, 4.3 days for patients 15–44 years of age, 6.3 days for patients 45–64 years of age, and 8.2 days for patients 65 years of age and over.

The number of discharges from short-stay hospitals by geographic region during 1992 ranged from 11.3 million in the South to 5.4 million in the West. Regional differences in the number of discharges are accounted for in part by variations in the population sizes. The rates per 1,000 population ranged from 140 in the Northeast region to 100 in the West. Average lengths of stay by geographic region were 5.2 days in the West, 6.0 days in the South, 6.2 days in the Midwest, and 7.2 days in the Northeast.

Utilization by diagnosis

Diseases of the circulatory system ranked first in 1992 of the ICD–9–CM diagnostic chapters as a principal or first-listed diagnosis for patients discharged from non-Federal short-stay hospitals. These conditions accounted for an estimated 5.6 million discharges. Other leading ICD–9–CM diagnostic chapters were supplementary

classifications (including females with deliveries) (4.4 million discharges), diseases of the digestive system (3.2 million discharges), and diseases of the respiratory system (2.9 million discharges). Approximately 52 percent of the patients discharged from non-Federal short-stay hospitals were included in these four ICD–9–CM diagnostic chapters.

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

The number and rate of discharges and average length of stay for each ICD–9–CM diagnostic chapter and selected categories are shown by sex and age in tables 4–6. The most common diagnostic categories for all patients were deliveries and heart disease. Other leading diagnostic categories were malignant neoplasms, pneumonia, and fractures. Excluding deliveries, these last four diagnostic categories were the leading first-listed diagnoses for both males and females. Some of the more common diagnoses for patients under 15 years of age were acute respiratory infections, pneumonia, and asthma. For patients 15–44 years of age, frequent diagnoses were deliveries, psychoses, and fractures. For patients 45–64 years of age and 65 years of age and over, heart disease and malignant neoplasms were major causes of hospitalization. The average length of stay for all patients ranged from 1.3 days for chronic disease of tonsils and adenoids to 12.9 for psychosis.

Utilization by procedure

One or more surgical or nonsurgical procedures were performed for an estimated 20.4 million of the 31.0 million inpatients discharged from short-stay hospitals during 1992. A total of 42.6 million procedures, or an average of 2.1 per patient who underwent at least one procedure, were recorded in 1992.

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

More than three-fourths of all the surgical and nonsurgical procedures performed during 1992 are listed in just 5 of the 16 procedure chapters. These were miscellaneous diagnostic and therapeutic procedures (13.9 million), obstetrical procedures (6.7 million), operations on the digestive system (5.4 million), operations on the cardiovascular system (4.4 million), and operations on the musculoskeletal system (3.3 million).

The number and rate of all-listed procedures in 1992 for each ICD–9–CM procedure chapter and selected procedure categories are shown by sex and age in tables 7 and 8. Of the 42.6 million procedures performed during 1992, 16.8 million were for males and 25.8 million were for females. The corresponding rates per 100,000 population were 16,815.7 for both sexes, 13,642.3 for males, and 19,810.6 for females. Frequent procedures for males were arteriography and angiocardiography, computerized axial tomography, and diagnostic ultrasound. Procedures commonly performed on females were episiotomy, fetal EKG and fetal monitoring, cesarean section, and diagnostic ultrasound.

The rate of procedures by age per 100,000 population ranged from 3,871.1 for patients under 15 years of age to 45,643.8 for patients 65 years of age and over. Commonly performed procedures for patients under 15 years of age were respiratory therapy, spinal tap, computerized axial tomography, and diagnostic ultrasound; for patients 15–44 years of age, episiotomy, fetal EKG and fetal monitoring, and cesarean section; for patients 45–64 years of age, arteriography and angiocardiography, cardiac catheterization, and diagnostic ultrasound; for patients 65 years of age and over, arteriography and angiocardiography, diagnostic ultrasound, and computerized axial tomography.

References

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2. Public Health Service and Health Care Financing Administration. International Classification of Diseases, 9th Revision, Clinical Modification. Washington: Public Health Service. 3rd ed. 1980.
3. SMG Marketing Group, Inc. Hospital Market Database. Chicago: Healthcare Information Specialists. 1987.
4. SMG Marketing Group, Inc. Hospital Market Database. Chicago: Healthcare Information Specialists. April 1991.
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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, 1992

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

Category of first-listed diagnosis and ICD–9–CM Code	Total	Sex		Age			
		Male	Female	Under 15 years	15–44 years	45–64 years	65 years and over
	Number of patients discharged in thousands						
All conditions	30,951	12,406	18,545	2,531	11,227	6,329	10,864
Infectious and parasitic diseases .001–139	808	403	404	203	224	121	259
Septicemia .038	279	131	148	24	26	51	178
Neoplasms .140–239	1,999	845	1,154	57	372	632	938
Malignant neoplasms .140–208,230–234	1,577	765	812	41	185	500	852
Malignant neoplasm of large intestine and rectum .153–154,197.5	161	78	83	*	*	44	111
Malignant neoplasm of trachea, bronchus, and lung .162,197.0,197.3	215	124	91	*	*7	86	122
Malignant neoplasm of breast .174–175,198.81	170	*	169	*	27	73	70
Benign neoplasms and neoplasms of uncertain behavior and unspecified nature .210–229,235–239	422	79	342	16	188	132	86
Endocrine, nutritional and metabolic diseases, and immunity disorders .240–279	1,178	487	691	113	256	301	507
Diabetes mellitus .250	476	207	269	19	134	148	174
Volume depletion .276.5	308	122	186	65	42	48	153
Diseases of the blood and blood-forming organs .280–289	322	137	185	53	87	59	124
Mental disorders .290–319	1,711	868	843	73	1,029	352	257
Psychoses .290–299	908	408	500	26	480	207	195
Alcohol dependence syndrome .303	258	196	63	*	177	62	17
Diseases of the nervous system and sense organs .320–389	708	330	378	138	197	138	235
Diseases of the central nervous system .320–336,340–349	314	147	167	43	120	64	87
Diseases of the ear and mastoid process .380–389	145	72	73	72	21	18	34
Diseases of the circulatory system .390–459	5,597	2,866	2,730	33	401	1,631	3,532
Heart disease .391–392.0,393–398,402,404,410–416,420–429	3,935	2,083	1,852	21	242	1,185	2,487
Acute myocardial infarction .410	747	458	289	*	43	262	441
Coronary atherosclerosis .414.0	416	285	130	*	21	177	217
Other ischemic heart disease .411–413,414.1–414.9	971	505	467	*	62	350	559
Cardiac dysrhythmias .427	542	256	286	*6	39	138	359
Congestive heart failure .428.0	822	373	449	*7	19	144	651
Cerebrovascular disease .430–438	829	375	454	*	29	173	623
Diseases of the respiratory system .460–519	2,923	1,436	1,486	735	460	501	1,227
Acute respiratory infections .460–466	376	187	189	215	54	35	71
Chronic disease of tonsils and adenoids .474	73	32	41	51	20	*	*
Pneumonia .480–486	1,059	535	524	208	135	161	556
Asthma .493	463	201	263	193	117	78	76
Diseases of the digestive system .520–579	3,187	1,392	1,795	249	895	819	1,224
Ulcers of the stomach and small intestine .531–534	232	115	117	*	41	66	125
Appendicitis .540–543	227	135	92	55	135	26	11
Inguinal hernia .550	112	98	14	16	17	25	53
Noninfectious enteritis and colitis .555–558	354	134	220	92	110	60	91
Cholelithiasis .574	512	154	358	*	170	160	181
Diseases of the genitourinary system .580–629	2,018	730	1,289	75	772	480	691
Calculus of kidney and ureter .592	218	143	75	*	102	76	37
Hyperplasia of prostate .600	221	221	...	–	*	49	173
Complications of pregnancy, childbirth, and the puerperium[1] .630–676	662	...	662	*	659	*	...
Abortions and ectopic and molar pregnancies .630–639	179	...	179	*	177	*	...
Diseases of the skin and subcutaneous tissue .680–709	462	230	232	44	141	113	165
Cellulitis and abscess .681–682	307	158	148	25	94	82	106
Diseases of the musculoskeletal system and connective tissue .710–739	1,610	714	896	38	508	466	598
Arthropathies and related disorders .710–719	554	212	342	13	122	132	288
Intervertebral disc disorders .722	407	222	185	*	198	147	62
Congenital anomalies .740–759	191	102	89	137	34	14	*6
Certain conditions originating in the perinatal period .760–779	141	81	60	137	*	–	*
Symptoms, signs, and ill-defined conditions .780–799	350	173	177	66	141	90	53
Injury and poisoning .800–999	2,701	1,405	1,296	298	1,033	496	874
Fractures, all sites .800–829	1,016	465	552	98	316	149	453
Fracture of neck of femur .820	278	73	205	*	10	21	244
Intracranial injuries (excluding those with skull fracture) .850–854	152	97	56	27	69	19	37
Lacerations and open wounds .870–904	180	130	50	25	117	21	16
Supplementary classifications .V01–V82	4,383	207	4,176	80	4,017	116	170
Females with deliveries .V27	3,910	...	3,910	10	3,895	*	...

[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, 1992

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

Category of first-listed diagnosis and ICD–9–CM Code	Total	Sex		Age			
		Male	Female	Under 15 years	15–44 years	45–64 years	65 years and over
	Rate of inpatients discharged per 10,000 population						
All conditions	1,221.0	1,008.0	1,422.0	452.4	960.0	1,310.2	3,365.0
Infectious and parasitic diseases .001–139	31.9	32.8	31.0	36.3	19.2	25.0	80.3
Septicemia .038	11.0	10.6	11.4	4.4	2.2	10.5	55.0
Neoplasms .140–239	78.9	68.6	88.5	10.2	31.8	130.8	290.5
Malignant neoplasms .140–208,230–234	62.2	62.2	62.3	7.3	15.8	103.5	263.8
Malignant neoplasm of large intestine and rectum .153–154,197.5	6.3	6.3	6.4	*	*	9.2	34.5
Malignant neoplasm of trachea, bronchus, and lung .162,197.0,197.3	8.5	10.1	7.0	*	*0.6	17.8	37.8
Malignant neoplasm of breast .174–175,198.81	6.7	*	13.0	*	2.3	15.1	21.7
Benign neoplasms and neoplasms of uncertain behavior and unspecified nature .210–229,235-239	16.6	6.4	26.3	2.9	16.0	27.3	26.7
Endocrine, nutritional and metabolic diseases, and immunity disorders .240–279	46.5	39.5	53.0	20.2	21.9	62.4	157.1
Diabetes mellitus .250	18.8	16.8	20.6	3.4	11.5	30.7	53.9
Volume depletion .276.5	12.2	9.9	14.2	11.6	3.6	9.9	47.4
Diseases of the blood and blood-forming organs .280–289	12.7	11.2	14.2	9.4	7.4	12.2	38.4
Mental disorders .290–319	67.5	70.5	64.7	13.1	88.0	72.8	79.7
Psychoses .290–299	35.8	33.2	38.3	4.6	41.0	42.9	60.4
Alcohol dependence syndrome .303	10.2	15.9	4.8	*	15.2	12.8	5.2
Diseases of the nervous system and sense organs .320–389	27.9	26.8	29.0	24.7	16.8	28.5	72.8
Diseases of the central nervous system .320–336,340–349	12.4	11.9	12.8	7.7	10.2	13.2	26.8
Diseases of the ear and mastoid process .380–389	5.7	5.8	5.6	12.9	1.8	3.7	10.6
Diseases of the circulatory system .390–459	220.8	232.9	209.4	5.9	34.3	337.6	1,093.9
Heart disease .391–392.0,393–398,402,404,410–416,420–429	155.2	169.3	142.0	3.8	20.7	245.3	770.4
Acute myocardial infarction .410	29.5	37.2	22.1	*	3.7	54.2	136.6
Coronary atherosclerosis .414.0	16.4	23.2	10.0	*	1.8	36.7	67.2
Other ischemic heart disease .411–413,414.1–414.9	38.3	41.0	35.8	*	5.3	72.4	173.3
Cardiac dysrhythmias .427	21.4	20.8	21.9	*1.1	3.4	28.5	111.1
Congestive heart failure .428.0	32.4	30.3	34.4	*1.3	1.6	29.9	201.6
Cerebrovascular disease .430–438	32.7	30.5	34.8	*	2.5	35.7	193.0
Diseases of the respiratory system .460–519	115.3	116.7	114.0	131.3	39.3	103.7	380.0
Acute respiratory infections .460–466	14.8	15.2	14.5	38.5	4.6	7.3	22.1
Chronic disease of tonsils and adenoids .474	2.9	2.6	3.2	9.1	1.7	*	*
Pneumonia .480–486	41.8	43.5	40.1	37.2	11.5	33.2	172.1
Asthma .493	18.3	16.3	20.1	34.4	10.0	16.1	23.6
Diseases of the digestive system .520–579	125.7	113.1	137.7	44.5	76.6	169.6	379.2
Ulcers of the stomach and small intestine .531–534	9.1	9.3	8.9	*	3.5	13.6	38.7
Appendicitis .540–543	9.0	11.0	7.1	9.8	11.6	5.5	3.3
Inguinal hernia .550	4.4	7.9	1.1	2.9	1.5	5.1	16.4
Noninfectious enteritis and colitis .555–558	13.9	10.9	16.8	16.5	9.4	12.4	28.2
Cholelithiasis .574	20.2	12.5	27.5	*	14.5	33.1	56.1
Diseases of the genitourinary system .580–629	79.6	59.3	98.8	13.4	66.0	99.0	214.1
Calculus of kidney and ureter .592	8.6	11.6	5.8	*	8.8	15.8	11.5
Hyperplasia of prostate .600	8.7	18.0	...	–	*	10.0	53.5
Complications of pregnancy, childbirth, and the puerperium[1] .630–676	26.1	...	50.8	*	56.3	*	...
Abortions and ectopic and molar pregnancies .630–639	7.0	...	13.7	*	15.2	*	...
Diseases of the skin and subcutaneous tissue .680–709	18.2	18.7	17.8	7.9	12.0	23.3	51.1
Cellulitis and abscess .681–682	12.1	12.9	11.4	4.5	8.0	16.9	32.8
Diseases of the musculoskeletal system and connective tissue .710–739	63.5	58.0	68.7	6.8	43.5	96.5	185.1
Arthropathies and related disorders .710–719	21.9	17.2	26.3	2.3	10.4	27.3	89.1
Intervertebral disc disorders .722	16.0	18.0	14.2	*	16.9	30.4	19.1
Congenital anomalies .740–759	7.6	8.3	6.8	24.5	2.9	2.9	*2.0
Certain conditions originating in the perinatal period .760–779	5.6	6.6	4.6	24.6	*	–	*
Symptoms, signs, and ill-defined conditions .780–799	13.8	14.0	13.6	11.7	12.0	18.6	16.6
Injury and poisoning .800–999	106.6	114.1	99.4	53.3	88.3	102.7	270.7
Fractures, all sites .800–829	40.1	37.8	42.3	17.5	27.1	30.8	140.4
Fracture of neck of femur .820	11.0	5.9	15.7	*	0.9	4.2	75.7
Intracranial injuries (excluding those with skull fracture) .850–854	6.0	7.9	4.3	4.9	5.9	3.9	11.4
Lacerations and open wounds .870–904	7.1	10.5	3.8	4.5	10.0	4.4	4.9
Supplementary classifications .V01–V82	172.9	16.8	320.2	14.4	343.5	24.0	52.7
Females with deliveries .V27	154.2	...	299.8	1.8	333.1	*	...

[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, 1992

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

Category of first-listed diagnosis and ICD–9–CM Code	Total	Sex		Age			
		Male	Female	Under 15 years	15–44 years	45–64 years	65 years and over
	Average length of stay in days						
All conditions	6.2	6.7	5.8	4.9	4.3	6.3	8.2
Infectious and parasitic diseases .001–139	7.9	8.0	7.9	4.0	8.1	8.6	10.6
Septicemia .038	10.8	10.7	10.9	7.0	10.9	10.6	11.4
Neoplasms .140–239	7.7	8.6	7.0	7.0	5.5	7.4	8.8
Malignant neoplasms .140–208,230–234	8.5	8.9	8.2	7.8	7.0	8.3	9.0
Malignant neoplasm of large intestine and rectum .153–154,197.5	11.5	11.0	11.9	*	*	10.3	12.0
Malignant neoplasm of trachea, bronchus, and lung .162,197.0,197.3	8.3	8.1	8.6	*	11.2	8.1	8.3
Malignant neoplasm of breast .174–175,198.81	4.1	*	4.1	*	4.2	4.0	4.1
Benign neoplasms and neoplasms of uncertain behavior and unspecified nature .210–229,235–239	4.6	6.4	4.2	5.2	4.0	4.2	6.6
Endocrine, nutritional and metabolic diseases, and immunity disorders .240–279	6.4	6.3	6.4	4.0	4.8	6.0	7.9
Diabetes mellitus .250	6.9	7.0	6.8	4.1	5.1	6.8	8.6
Volume depletion .276.5	6.4	6.1	6.6	3.0	4.0	5.8	8.8
Diseases of the blood and blood-forming organs .280–289	6.0	5.9	6.2	3.8	5.7	5.7	7.4
Mental disorders .290–319	10.9	10.2	11.5	16.4	10.2	10.6	12.4
Psychoses .290–299	12.9	12.0	13.7	18.4	12.2	13.1	13.8
Alcohol dependence syndrome .303	9.4	9.0	10.7	*	9.9	7.9	9.3
Diseases of the nervous system and sense organs .320–389	5.5	5.7	5.3	3.7	5.2	6.1	6.5
Diseases of the central nervous system .320–336,340–349	8.8	9.3	8.4	6.8	6.8	9.3	12.3
Diseases of the ear and mastoid process .380–389	2.6	2.5	2.8	2.3	2.0	2.5	3.8
Diseases of the circulatory system .390–459	7.0	6.9	7.2	7.4	5.4	6.2	7.6
Heart disease .391–392.0,393–398,402,404,410–416,420–429	6.7	6.4	7.0	7.9	5.3	5.7	7.2
Acute myocardial infarction .410	8.1	7.7	8.8	*	5.7	7.4	8.8
Coronary atherosclerosis .414.0	5.6	5.5	6.0	*	3.9	4.9	6.4
Other ischemic heart disease .411–413,414.1–414.9	5.0	4.9	5.1	*	3.6	4.3	5.5
Cardiac dysrhythmias .427	5.2	4.9	5.5	*6.1	3.0	4.5	5.7
Congestive heart failure .428.0	7.9	7.8	8.0	*9.7	6.6	6.9	8.2
Cerebrovascular disease .430–438	8.8	8.9	8.8	*	9.1	8.9	8.8
Diseases of the respiratory system .460–519	6.8	6.7	6.8	3.5	5.0	7.1	9.2
Acute respiratory infections .460–466	4.0	3.7	4.2	3.4	3.2	4.8	6.1
Chronic disease of tonsils and adenoids .474	1.3	1.4	1.2	1.2	1.4	*	*
Pneumonia .480–486	8.3	8.5	8.1	4.5	7.2	8.0	10.1
Asthma .493	4.3	3.6	4.9	2.9	4.0	6.1	6.6
Diseases of the digestive system .520–579	5.8	5.6	5.9	3.7	4.4	5.5	7.4
Ulcers of the stomach and small intestine .531–534	6.9	6.2	7.7	*	5.0	6.7	7.7
Appendicitis .540–543	4.4	4.4	4.5	4.1	4.0	5.8	8.5
Inguinal hernia .550	2.5	2.5	2.7	1.4	1.5	2.9	3.0
Noninfectious enteritis and colitis .555–558	4.9	4.9	4.9	2.7	4.9	4.7	7.3
Cholelithiasis .574	4.4	5.2	4.0	*	2.9	4.0	6.1
Diseases of the genitourinary system .580–629	4.7	5.0	4.5	4.0	3.6	4.2	6.3
Calculus of kidney and ureter .592	3.1	2.9	3.5	*	2.8	2.6	4.4
Hyperplasia of prostate .600	4.4	4.4	...	–	*	3.8	4.6
Complications of pregnancy, childbirth, and the puerperium[1] .630–676	2.6	...	2.6	*	2.6	*	...
Abortions and ectopic and molar pregnancies .630–639	2.0	...	2.0	*	2.0	*	...
Diseases of the skin and subcutaneous tissue .680–709	7.8	7.1	8.4	3.9	5.5	7.9	10.6
Cellulitis and abscess .681–682	6.7	6.2	7.3	4.0	5.1	7.3	8.5
Diseases of the musculoskeletal system and connective tissue .710–739	6.2	5.5	6.8	5.5	3.9	5.2	9.1
Arthropathies and related disorders .710–719	7.3	5.9	8.1	7.0	3.3	6.4	9.3
Intervertebral disc disorders .722	4.4	4.0	4.9	*	3.7	4.2	7.1
Congenital anomalies .740–759	6.3	6.8	5.8	6.9	4.7	5.5	*5.2
Certain conditions originating in the perinatal period .760–779	12.4	13.5	10.7	12.3	*	–	*
Symptoms, signs, and ill-defined conditions .780–799	3.0	3.0	2.9	2.6	2.6	2.7	4.7
Injury and poisoning .800–999	6.2	5.8	6.7	3.7	4.8	6.2	8.9
Fractures, all sites .800–829	7.7	7.0	8.4	4.3	5.7	6.8	10.2
Fracture of neck of femur .820	11.7	11.9	11.6	*	8.4	11.1	11.9
Intracranial injuries (excluding those with skull fracture) .850–854	5.5	5.1	6.3	2.3	4.9	6.9	8.3
Lacerations and open wounds .870–904	3.8	3.6	4.5	2.2	3.5	4.8	7.0
Supplementary classifications .V01–V82	3.1	7.8	2.9	4.1	2.6	6.1	11.9
Females with deliveries .V27	2.6	...	2.6	3.3	2.6	*	...

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

Table 7. Number of all-listed procedures for inpatients discharged from short-stay hospitals, by procedure category, sex, and age: United States, 1992

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

Procedure category and ICD–9–CM Code	Total	Sex		Age			
		Male	Female	Under 15 years	15–44 years	45–64 years	65 years and over
	Number of all-listed procedures in thousands						
All procedures	42,627	16,791	25,836	2,166	16,264	9,461	14,736
Operations on the nervous system .01–05	921	442	479	194	307	206	213
Spinal tap .03.31	339	184	155	146	83	55	54
Operations on the endocrine system .06–07	102	29	72	*	39	38	21
Operations on the eye .08–16	332	162	169	27	62	70	173
Operations on the ear .18–20	121	68	53	64	31	10	15
Operations on the nose, mouth, and pharynx .21–29	533	280	252	119	227	101	85
Tonsillectomy with or without adenoidectomy .28.2–28.3	80	33	46	51	25	*	*
Operations on the respiratory system .30–34	1,031	575	456	86	196	292	457
Bronchoscopy with or without biopsy .33.21–33.24,33.27	315	178	138	28	56	92	139
Operations on the cardiovascular system .35–39	4,424	2,630	1,794	152	501	1,544	2,226
Removal of coronary artery obstruction .36.0	399	262	136	*	30	177	192
Coronary artery bypass graft[1] .36.1	468	347	122	*	16	200	252
Cardiac catheterization .37.21–37.23	1,028	636	392	15	95	432	486
Insertion, replacement, removal, and revision of pacemaker leads or device .37.7–37.8	274	140	134	*	*8	51	214
Shunt or vascular bypass .39.0–39.2	178	99	79	*	20	62	92
Hemodialysis .39.95	322	156	167	*	81	103	138
Operations on the hemic and lymphatic system .40–41	398	202	195	20	71	114	192
Operations on the digestive system .42–54	5,358	2,258	3,100	218	1,430	1,332	2,378
Endoscopy of small intestine with or without biopsy .45.11–45.14,45.16	864	405	459	15	151	212	486
Endoscopy of large intestine with or without biopsy .45.21–45.25	573	238	335	*	79	142	348
Partial excision of large intestine .45.7	217	91	126	*	23	56	133
Appendectomy, excluding incidental .47.0	261	143	118	57	159	29	16
Cholecystectomy .51.2	525	165	360	*	177	162	185
Repair of inguinal hernia .53.0–53.1	139	121	18	20	20	31	69
Lysis of peritoneal adhesions .54.5	344	67	277	*5	165	78	95
Operations on the urinary system .55–59	1,413	776	637	48	331	352	682
Cystoscopy with or without biopsy .57.31–57.33	414	291	123	9	62	98	245
Operations on the male genital organs .60–64	539	539	...	40	32	109	357
Prostatectomy .60.2–60.6	353	353	...	...	*	74	278
Operations on the female genital organs .65–71	2,302	...	2,302	*7	1,562	511	222
Oophorectomy and salpingo-oophorectomy .65.3–65.6	464	...	464	*	239	169	55
Bilateral destruction or occlusion of fallopian tubes .66.2–66.3	380	...	380	*	378	*	...
Hysterectomy .68.3–68.7	580	...	580	*	335	185	60
Dilation and curettage of uterus .69.0	173	...	173	*	138	26	9
Repair of cystocele and rectocele .70.5	141	...	141	*	36	58	47
Obstetrical procedures .72–75	6,664	...	6,664	16	6,642	*6	...
Episiotomy with or without forceps or vacuum extraction .72.1,72.21,72.31,72.71,73.6	1,611	...	1,611	*5	1,604	*	...
Artificial rupture of membranes .73.0	729	...	729	*	727	*	...
Cesarean section .74.0–74.2,74.4,74.99	921	...	921	*	918	*	...
Fetal EKG (scalp) and fetal monitoring, not otherwise specified .75.32,75.34	1,241	...	1,241	*	1,238	*	...
Repair of current obstetric laceration .75.5–75.6	790	...	790	*	787	*	...
Operations on the musculoskeletal system .76–84	3,266	1,652	1,614	171	1,252	841	1,002
Partial excision of bone .76.2–76.3,77.6–77.8	222	115	107	9	95	73	45
Open reduction of fracture with internal fixation .79.3	417	187	230	21	151	74	171
Excision or destruction of intervertebral disc .80.5	319	175	144	*	157	118	44
Total hip replacement .81.51	127	49	79	–	10	33	84
Total knee replacement .81.54	167	53	115	*	*	38	126
Operations on the integumentary system .85–86	1,371	563	808	91	453	382	445
Mastectomy .85.4	117	*	116	–	19	44	54
Debridement of wound, infection, or burn .86.22,86.28	308	178	129	20	92	82	113
Skin graft .86.6–86.7	108	59	48	11	35	30	32
Miscellaneous diagnostic and therapeutic procedures .87–99	13,854	6,615	7,239	908	3,128	3,550	6,268
Computerized axial tomography .87.03,87.41,87.71,88.01,88.38	1,266	608	658	68	286	290	621
Pyelogram .87.73–87.75	203	105	98	*	69	62	68
Arteriography and angiocardiography using contrast material .88.4–88.5	1,771	1,060	711	20	194	714	844
Diagnostic ultrasound .88.7	1,458	587	871	63	366	339	689
Circulatory monitoring .89.6	596	287	309	35	101	130	329
Radioisotope scan .92.0–92.1	464	203	261	12	82	133	237
Respiratory therapy .93.9	819	381	438	168	128	159	365

[1]The number of discharged patients with a coronary artery bypass graft was 309,000.

Table 8. Rate of all-listed procedures for inpatients discharged from short-stay hospitals, by procedure category, sex, and age: United States, 1992

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

Procedure category and ICD–9–CM Code	Total	Sex		Age			
		Male	Female	Under 15 years	15–44 years	45–64 years	65 years and over
	Rate of all-listed procedures per 100,000 population						
All procedures	16,815.7	13,642.3	19,810.6	3,871.1	13,907.5	19,585.5	45,643.8
Operations on the nervous system .01–05	363.2	359.1	367.1	347.6	262.6	427.4	659.3
Spinal tap .03.31	133.7	149.4	118.8	260.7	71.3	114.7	167.6
Operations on the endocrine system .06–07	40.0	23.6	55.6	*	33.4	78.4	65.4
Operations on the eye .08–16	130.9	131.9	129.9	47.8	53.4	144.8	535.0
Operations on the ear .18–20	47.7	54.9	41.0	115.2	26.2	21.7	47.9
Operations on the nose, mouth, and pharynx .21–29	210.1	227.7	193.6	212.9	194.3	209.8	263.2
Tonsillectomy with or without adenoidectomy .28.2–28.3	31.4	26.9	35.6	90.8	21.5	*	*
Operations on the respiratory system .30–34	406.7	467.0	349.8	153.0	168.0	604.2	1,415.6
Bronchoscopy with or without biopsy .33.21–33.24,33.27	124.4	144.4	105.5	50.3	47.6	190.9	431.5
Operations on the cardiovascular system .35–39	1,745.1	2,136.9	1,375.4	272.3	428.8	3,197.0	6,894.1
Removal of coronary artery obstruction .36.0	157.2	213.3	104.3	*	25.3	366.2	594.4
Coronary artery bypass graft[1] .36.1	184.8	281.8	93.2	*	13.6	413.7	781.7
Cardiac catheterization .37.21–37.23	405.6	517.1	300.4	27.0	81.3	893.8	1,506.3
Insertion, replacement, removal, and revision of pacemaker leads or device .37.7–37.8	108.1	113.5	102.9	*	*6.9	104.6	661.7
Shunt or vascular bypass .39.0–39.2	70.3	80.8	60.4	*	17.3	129.0	284.8
Hemodialysis .39.95	127.2	126.5	127.8	*	69.2	213.0	426.3
Operations on the hemic and lymphatic system .40–41	156.8	164.4	149.7	35.7	60.6	236.6	596.1
Operations on the digestive system .42–54	2,113.6	1,834.4	2,377.0	389.8	1,222.5	2,757.4	7,365.8
Endoscopy of small intestine with or without biopsy .45.11–45.14,45.16	341.0	329.1	352.1	26.7	129.2	439.9	1,504.6
Endoscopy of large intestine with or without biopsy .45.21–45.25	226.0	193.5	256.7	*	67.3	293.1	1,078.7
Partial excision of large intestine .45.7	85.6	74.0	96.6	*	20.0	116.3	411.6
Appendectomy, excluding incidental .47.0	102.9	116.1	90.4	102.5	136.0	59.5	48.4
Cholecystectomy .51.2	207.1	133.9	276.1	*	151.5	335.6	571.8
Repair of inguinal hernia .53.0–53.1	54.9	98.2	14.1	35.4	17.2	63.3	212.9
Lysis of peritoneal adhesions .54.5	135.5	54.4	212.1	*9.7	141.1	162.3	293.7
Operations on the urinary system .55–59	557.4	630.5	488.5	86.0	283.0	728.8	2,112.2
Cystoscopy with or without biopsy .57.31–57.33	163.5	236.5	94.6	16.9	53.0	202.3	759.9
Operations on the male genital organs .60–64	212.5	437.8	...	72.3	27.4	226.6	1,105.3
Prostatectomy .60.2–60.6	139.1	286.6	...	...	*	153.4	861.2
Operations on the female genital organs .65–71	908.2	...	1,765.4	*12.4	1,335.9	1,058.7	686.8
Oophorectomy and salpingo-oophorectomy .65.3–65.6	183.1	...	355.9	*	204.5	350.0	169.1
Bilateral destruction or occlusion of fallopian tubes .66.2–66.3	149.8	...	291.1	*	323.4	*	...
Hysterectomy .68.3–68.7	228.8	...	444.7	*	286.3	382.8	186.6
Dilation and curettage of uterus .69.0	68.3	...	132.8	*	117.9	53.5	28.1
Repair of cystocele and rectocele .70.5	55.7	...	108.2	*	30.4	120.9	145.5
Obstetrical procedures .72–75	2,628.9	...	5,109.9	28.4	5,679.4	*13.2	...
Episiotomy with or without forceps or vacuum extraction .72.1,72.21,72.31,72.71,73.6	635.4	...	1,235.1	*9.6	1,371.5	*	...
Artificial rupture of membranes .73.0	287.5	...	558.9	*	621.3	*	...
Cesarean section .74.0–74.2,74.4,74.99	363.3	...	706.1	*	784.9	*	...
Fetal EKG (scalp) and fetal monitoring, not otherwise specified .75.32,75.34	489.6	...	951.6	*	1,058.7	*	...
Repair of current obstetric laceration .75.5–75.6	311.8	...	606.1	*	673.4	*	...
Operations on the musculoskeletal system .76–84	1,288.3	1,342.3	1,237.4	306.1	1,070.2	1,740.5	3,104.4
Partial excision of bone .76.2–76.3,77.6–77.8	87.6	93.7	81.7	16.9	81.1	150.8	139.0
Open reduction of fracture with internal fixation .79.3	164.4	151.9	176.3	37.5	129.1	153.4	529.2
Excision or destruction of intervertebral disc .80.5	125.9	142.4	110.4	*	134.6	244.1	135.4
Total hip replacement .81.51	50.1	39.4	60.2	–	8.7	68.1	260.2
Total knee replacement .81.54	66.1	42.9	87.9	*	*	79.5	391.1
Operations on the integumentary system .85–86	540.9	457.7	619.4	162.8	387.4	791.2	1,378.1
Mastectomy .85.4	46.0	*	88.8	–	16.4	90.5	166.5
Debridement of wound, infection, or burn .86.22,86.28	121.4	145.0	99.1	36.1	78.9	169.3	351.4
Skin graft .86.6–86.7	42.5	48.1	37.1	19.3	29.7	61.7	99.9
Miscellaneous diagnostic and therapeutic procedures .87–99	5,465.1	5,374.2	5,551.0	1,622.5	2,674.7	7,349.2	19,414.7
Computerized axial tomography .87.03,87.41,87.71,88.01,88.38	499.4	493.9	504.7	121.8	244.7	600.9	1,925.0
Pyelogram .87.73–87.75	79.9	85.0	75.1	*	58.8	128.9	209.5
Arteriography and angiocardiography using contrast material .88.4–88.5	698.7	861.3	545.2	35.3	165.5	1,477.7	2,614.1
Diagnostic ultrasound .88.7	575.2	477.2	667.6	113.1	313.2	702.4	2,134.7
Circulatory monitoring .89.6	234.9	232.9	236.9	62.1	86.4	269.9	1,020.4
Radioisotope scan .92.0–92.1	183.1	165.3	199.9	21.4	69.9	276.1	734.2
Respiratory therapy .93.9	323.2	309.6	335.9	300.0	109.0	328.8	1,130.6

[1]The rate per 1,000,000 population of discharged patients with a coronary bypass graft was 121.9.

Technical notes

Survey methodology

Source of data

The National Hospital Discharge Survey 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 fewer than 30 days) or those whose specialty is general (medical or surgical) or children's general are included in the survey. These hospitals must also have six beds or more staffed for patient use.

From 1988 through 1990, the NHDS sampling frame consisted of hospitals that were listed in the April 1987 SMG Hospital Market Database (3), met the above criteria, and began accepting patients by August 1987. In 1991 the sampling frame was updated to include hospitals from the 1991 SMG Hospital Database (4). For 1992, the sample consisted of 528 hospitals. Of the 528 hospitals, 14 were found to be out of scope (ineligible) because they went out of business or otherwise failed to meet the criteria for the NHDS universe. Of the 514 in-scope (eligible) hospitals, 494 responded to the survey.

Sample design and data collection

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

Beginning in 1988, the NHDS sample includes with certainty all hospitals with 1,000 beds or more or 40,000 discharges or more annually. The remaining sample of hospitals is based on a stratified three-stage design. The first stage consists of a selection of 112 primary sampling units (PSU's) that comprise a probability subsample of PSU's to be used in the 1985–94 National Health Interview Survey. The second stage consists of a selection of noncertainty hospitals from the sample PSU's. At the third stage, a sample of discharges was selected by a systematic random sampling technique.

Two data collection procedures were used for the survey. The first was a manual system of sample selection and data abstraction. The second was an automated method, used for approximately 34 percent of the respondent hospitals in 1992, that involved the purchase of data tapes from abstracting service organizations, State data systems, or hospitals.

In the manual system, the sample selection and the transcription of information from the hospital records to abstract forms were performed at the hospitals. The completed forms, along with sample selection control sheets, were forwarded to NCHS for coding, editing, and weighting. Of the hospitals using the manual system in 1992, about 58 percent had the work performed by their own medical records staff. In the remaining hospitals using the manual system, personnel of the U.S. Bureau of the Census did the work on behalf of NCHS.

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

The medical abstract form and the automated data tapes contain items relating to the personal characteristics of the patient, including birth date, sex, race, and marital status but not name and address; administrative information, including admission and discharge dates, discharge status, and medical record number; and medical information, including diagnoses and surgical and nonsurgical operations or procedures. Since 1977, patient ZIP Code, expected source of payment, and dates of surgery have also been collected. (The medical record number and patient ZIP Code are confidential information and are not available to the public.)

Presentation of estimates

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

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

Sampling errors and rounding of numbers

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

Estimates of sampling variability were calculated with SESUDAAN software, which computes standard errors by using a first-order Taylor approximation of the deviation of estimates from their expected values. A description of the software and the approach it uses has been published (5).

The constants for relative standard error curves for the 1992 National Hospital Discharge Survey are presented in table I. The relative standard error [RSE(X)] of an estimate X may be estimated from the formula:

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

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

Estimates have been rounded to the nearest thousandth. For this reason, figures within tables do not always add to the

totals. Rates and average lengths of stay were calculated from original, unrounded figures and will not necessarily agree precisely with rates or average lengths of stay calculated from rounded data.

Tests of significance

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

Terms relating to hospitalization

Hospitals—All hospitals with an average length of stay for all patients of fewer than 30 days or hospitals whose specialty is general (medical or surgical) or children's general are eligible for inclusion in the National Hospital Discharge Survey, except Federal hospitals, hospital units of institutions, and hospitals with fewer 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 by a patient at time of discharge. A stay of less than 1 day (patient admission and discharge on the same day) is counted as 1 day in the summation of total days of care. For patients admitted and discharged on different days, the number of days of care is computed by counting all days from (and including) the date of admission to (but not including) the date of discharge.

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

Terms relating to diagnoses

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

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

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

Terms relating to procedures

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

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

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

Demographic terms

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

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

Geographic region—Hospitals are classified by location in one of the four geographic regions of the United States

Table I. Estimated parameters for relative standard error equations for National Hospital Discharge Survey statistics, by sex, age, and geographic region: United States, 1992

Characteristic	Number of discharges or first-listed diagnoses		Number of procedures	
	a	b	a	b
Total	0.00097	449.059	0.00143	377.158
Sex				
Male	0.00377	355.244	0.00465	336.276
Female	0.00089	404.530	0.00124	416.841
Age				
Under 15 years	0.06075	81.775	0.10248	74.715
15–44 years	0.01291	44.505	0.00903	153.675
45–64 years	0.00656	147.706	0.00494	295.564
65 years and over	0.00175	464.831	0.00986	288.155
Region				
Northeast	0.00275	277.031	0.00556	166.484
Midwest	0.00358	296.767	0.00587	240.949
South	0.00375	464.132	0.00298	430.632
West	0.00006	1,168.044	0.00831	735.033

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

Symbols

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

*U.S. Government Printing Office: 1994 — 301-050/80027

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