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Diagnosis-Related Groups Using Data From the National Hospital Discharge Survey: United States, 1981

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Introduction

This report presents selected estimates on diagnosis-related groups for 1981. These groups, developed at the Yale School of Organization and Management, are being used by the Health Care Financing Administration, some States, and some third party payors to reimburse hospitals for inpatient care.¹ This approach to health care reimbursement operates on the principle that patients with similar medical conditions should receive similar care and use approximately the same amount of resources; therefore, the hospital should be reimbursed the same amount. While there is variation in resource consumption among individuals within a diagnosis-related group, these are expected to balance across all patients. Diagnosis-related groups and prospective reimbursement are likely to play an increasingly important role in health care financing in the future.

The Health Care Financing Administration, which operates the Medicare program, is taking the next several years to make the transition to the use of diagnosis-related groups (DRG's) for hospital inpatient reimbursement. The phase-in period allows adjustments based on selected hospital characteristics and geographic locations so hospitals can adjust to this method of reimbursement. At the end of this time, care provided to an inpatient covered by Medicare in a specific DRG will translate into a preestablished amount of payment to the hospital regardless of its characteristics and location.

DRG's were developed under the guiding principle that "The primary objective in the construction of DRG's was a definition of case type, each of which could be expected to receive similar outputs or services from a hospital."² This was accomplished using clinical judgment and statistical procedures that classify patients by measuring resource utilization. The first step in this process was to cluster the universe of medical diagnosis into broad, mutually exclusive categories. These groups were formed to be consistent in their anatomical or

physiopathological classification, or in the manner in which they are clinically managed. Once these major diagnostic groups were formed, an interactive statistical program (AUTOGRP²) was used to further classify each major group into discrete DRG's. This process incorporated patient information regarding diagnoses (primary and secondary), procedures, sex, and age to explain maximally a patient's resource use, which was approximated by a patient's length of stay. In all, there are currently 470 DRG's.

There are many important issues to be studied concerning a change in reimbursement procedures, most of which are beyond the scope of this paper. One issue relevant to the National Hospital Discharge Survey (NHDS) is how this system may affect the selection of a patient's principal diagnosis. For example, two patients admitted to the hospital for treatment of chest pain—one diagnosed as having chest pain and the other diagnosed as having angina—will have different reimbursement rates.¹ There is speculation that DRG reimbursement may influence the selection of a diagnosis in cases such as this. If so, changes may show up in future DRG estimates produced from NHDS data. The estimates in this report can be viewed as a baseline to compare future estimates of DRG's.

The statistics in this report are based on data collected by means of the NHDS, a continuous survey conducted by the National Center for Health Statistics since 1965. Data for this survey are sampled from short-stay non-Federal general and specialty hospitals in the 50 States and the District of Columbia. The sample for 1981 contained approximately 227,000 medical records from 428 hospitals. The relevant variables required to produce DRG's (diagnoses, procedures, sex, age, and other variables) were abstracted from the face sheet of each sampled medical record, and the NHDS could thereby produce national estimates of DRG's. These estimates may be of value for hospitals to compare their experience with that of other hospitals. For this reason, statistics in this report are frequency estimates

and associated average length of stay for DRG's by hospital bed size and region of the country.

Highlights

The frequency and average length of stay for the most common DRG's are presented by age, region of the country, and hospital bed size (tables 1-4). Age is dichotomized as under 65 years of age and 65 years of age and older. This allows a comparison with the Medicare population because Medicare covers most hospital costs for approximately 94 percent of discharges 65 years of age and over. Tables 1 and 2 provide regional data, while tables 3 and 4 provide bed-size data for these DRG's. Within each of these sets of tables, the first (tables 1 and 3) are for patients under 65 years of age, and the second (tables 2 and 4) are for patients 65 years of age and over.

By definition, some DRG's are only for patients in a specific age range. In such a case the DRG title and the table title (tables 1-4) together define the age group of the estimate. That is, the most restrictive case of either the table or DRG title determines the age group of the estimate. For example, "Diabetes, age greater than 35 years" in table 2 only refers to patients 65 years of age and over because of the table title; whereas, "Simple pneumonia and pleurisy, age greater than 69 years and/or substantial comorbidity and complication" in table 2 would not include a patient under 70 years of age because of the restriction in the DRG title.

The most common DRG for patients under 65 years of age is vaginal delivery without complicating diagnoses (table 1), with an estimated 2.8 million discharges in 1981. Cesarean section, with 631,000 discharges, was also among the most frequent DRG's in this age group. For patients 65 years of age and older (table 2), atherosclerosis is the most

Table 1. Number of discharges and average length of stay of patients under 65 years of age discharged from short-stay hospitals, by selected diagnosis-related groups and geographic region: United States, 1981

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

Diagnosis-related group	All regions					North Central					South West				
	All regions	Northeast	North Central	South	West	All regions	Northeast	North Central	South	West	All regions	Northeast	North Central	South	West
	Number in thousands										Average length of stay in days				
All discharges	28,136	5,621	8,177	9,715	4,624	5.9	6.6	6.2	5.7	5.1					
Vaginal delivery without complicating diagnoses	2,790	517	796	922	555	3.0	3.5	3.5	2.8	2.8					
Medical back problems	800	126	267	280	127	7.2	8.9	7.4	6.9	5.9					
Esophagitis, gastroenteritis, and miscellaneous digestive disorders, ages 18-69 years without substantial comorbidity and/or complication	688	83	188	340	76	4.3	5.0	4.3	4.3	3.3					
Cesarean section without substantial comorbidity and/or complication	631	133	154	228	115	6.1	7.3	6.3	5.7	5.0					
Nonradical hysterectomy, age less than 70 years without substantial comorbidity and/or complication	527	71	130	218	109	7.3	8.2	8.0	7.1	6.1					
Unrelated operating room procedures	406	71	117	148	70	10.7	14.3	10.4	10.1	8.8					
Alcohol- and substance-induced organic mental syndrome	403	182	112	66	44	10.0	8.7	12.8	9.9	8.6					
Dilation and curettage of uterus, conization except for malignancy	392	114	101	135	42	1.9	1.7	2.0	2.2	1.2					
Psychoses	383	99	129	86	69	16.9	20.1	17.0	13.3	16.4					
Esophagitis, gastroenteritis, and miscellaneous digestive disorders, ages 0-17 years	379	68	110	168	32	3.7	3.9	3.4	3.7	4.0					
Abortion with dilation and curettage of uterus	355	140	71	101	44	1.4	1.1	1.8	1.6	1.1					
Bronchitis and asthma, ages 0-17 years	299	62	95	108	33	4.1	4.3	4.2	4.3	2.9					
Tonsillectomy and/or adenoidectomy, ages 0-17 years	295	49	109	90	48	1.7	1.6	1.8	2.0	1.3					
Inguinal and femoral hernia procedures, ages 18-69 years without substantial comorbidity and/or complication	253	68	71	67	47	4.4	4.4	4.7	4.9	3.2					
Diabetes, age more than 35 years	249	52	66	103	27	8.1	10.8	7.7	7.4	6.9					
Vaginal delivery with sterilization and/or dilation and curettage of uterus	246	39	51	119	37	3.6	4.5	3.9	3.4	3.1					
Simple pneumonia and pleurisy, ages 0-17 years	243	29	70	120	25	5.1	5.6	5.1	5.2	3.1					
Knee procedures, age less than 70 years without substantial comorbidity and/or complication	232	39	85	59	48	4.6	5.3	4.2	5.3	3.7					
Hypertension	229	38	60	102	29	5.9	6.3	6.5	5.6	5.3					
Otitis media and upper respiratory infection, ages 0-17 years	227	37	71	99	20	3.3	3.5	3.1	3.5	2.8					

Table 2. Number of discharges and average length of stay of patients 65 years of age and over from short-stay hospitals, by selected diagnosis-related groups and geographic region: United States, 1981

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

Diagnosis-related group	Number in thousands					Average length of stay in days				
	All regions	Northeast	North Central	South	West	All regions	Northeast	North Central	South	West
All discharges	10,408	2,201	2,955	3,488	1,764	10.5	13.1	10.6	9.9	8.3
Atherosclerosis, age greater than 69 years and/or substantial comorbidity and complication	422	93	107	161	60	9.4	11.7	9.5	8.9	6.8
Lens procedures	387	75	114	100	97	3.2	3.4	3.4	3.1	2.9
Esophagitis, gastroenteritis, and miscellaneous digestive disorders, age greater than 69 years and/or substantial comorbidity and complication	372	58	111	154	49	7.0	8.9	7.0	6.9	5.4
Heart failure and shock	363	83	100	122	59	9.9	12.6	9.9	9.1	7.5
Chronic obstructive pulmonary disease	304	59	79	116	50	9.9	11.7	10.0	9.3	9.0
Specific cerebrovascular disorders except transient ischemic attack	294	67	83	95	48	15.8	20.4	14.7	15.2	12.2
Simple pneumonia and pleurisy, age greater than 69 years and/or substantial comorbidity and complication	281	50	75	114	41	11.2	13.9	11.4	10.5	9.7
Diabetes, age greater than 35 years	218	44	61	90	23	9.9	14.1	9.4	8.9	7.4
Unrelated operating room procedures	211	55	66	62	28	18.5	24.8	16.1	17.2	14.3
Circulatory disorders with acute myocardial infarction without cardiovascular complications, discharged alive	179	42	44	56	37	12.6	14.1	13.7	12.5	9.6
Medical back problems	173	31	49	64	28	8.8	10.1	8.6	8.4	8.4
Cardiac arrhythmia and conduction disorders, age greater than 69 years and/or substantial comorbidity and complication	168	36	49	51	32	7.3	9.0	8.2	6.9	5.1
Hypertension	162	26	47	68	22	7.7	9.5	7.6	7.7	5.7
Angina pectoris	161	35	47	58	21	7.0	8.4	8.0	6.1	5.1
Transient ischemic attacks	150	35	39	53	24	7.6	10.3	8.1	6.7	4.9
Transurethral prostatectomy, age greater than 69 years and/or substantial comorbidity and complication	140	32	39	44	24	10.5	13.4	10.7	9.9	7.3
Bronchitis and asthma, age greater than 69 years and/or substantial comorbidity and complication	126	25	34	46	21	8.7	12.0	8.4	8.2	6.6
Gastrointestinal hemorrhage, age greater than 69 years and/or substantial comorbidity and complication	126	29	34	39	24	9.2	11.2	9.5	9.4	6.3
Respiratory neoplasms	126	33	29	40	23	11.3	13.4	11.1	11.4	8.3
Kidney and urinary tract infections, age greater than 69 years and/or substantial comorbidity and complications	124	19	30	59	16	9.3	11.0	9.8	9.2	6.4

common DRG, 422,000, and lens procedures, 387,000, is the second most common DRG for the elderly.

The average length of stay for specific DRG's in the four regions of the country generally reflects the pattern found for all patients: the northeast has the longest average length of stay and the west has the shortest. Regional length-of-stay differences are greater for patients 65 years of age or more than for younger patients. The west has an average length of stay of 5.1 days for patients under 65 years of age and the northeast has an average length of stay of 6.6 days; a difference of 1.5 days, or 29.4 percent greater. For older patients, however, the northeast has an average length of stay 4.8 days greater than the elderly patients in the west (13.1 versus 8.3 days), a difference of 57.8 percent.

Overall there is a tendency for length of stay to increase with hospital bed size (table 3 and 4) for patients under 65

years of age as well as for older patients, but this pattern is not consistent for some of the individual DRG's. For example, patients with psychoses under 65 years (table 3) had a longer length of stay in the smallest hospitals, and for some DRG's the average length of stay in medium-size hospitals is equal to or greater than the average length of stay in large hospitals (500 or more beds).

The average length of stay associated with a DRG (tables 1-4) allows hospitals to compare their experience with that of other hospitals. While comparison is tenuous on a case-by-case basis, a hospital with an average length of stay 2, 3, or more days longer than the national average for a specific DRG may need to examine why it is so far from the norm. This kind of comparison may be worthwhile as a starting point, but even within a DRG, average length of stay is not an exact measure of resource consumption.

Table 3. Number of discharges and average length of stay of patients under 65 years of age discharged from short-stay hospitals, by selected diagnosis-related groups and hospital bed size: United States, 1981

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

Diagnosis-related group	Number in thousands						Average length of stay in days					
	All hospitals	6-99 beds	100-199 beds	200-299 beds	300-499 beds	500 or more beds	All hospitals	6-99 beds	100-199 beds	200-299 beds	300-499 beds	500 or more beds
All discharges	28,136	4,783	5,149	4,351	6,874	6,979	5.9	4.7	5.4	5.7	6.3	7.0
Vaginal delivery without complicating diagnoses	2,790	422	488	454	672	755	3.0	2.5	2.9	2.8	3.3	3.3
Medical back problems	800	159	155	133	193	159	7.2	6.6	7.0	6.8	7.6	7.8
Esophagitis, gastroenteritis, and miscellaneous digestive disorders, ages 18-69 years without substantial comorbidity and/or complication	688	204	132	106	134	112	4.3	3.7	4.2	4.6	4.5	4.9
Cesarean section without substantial comorbidity and/or complication	631	76	122	91	159	182	6.1	5.7	5.5	6.0	6.2	6.4
Nonradical hysterectomy, age less than 70 years without substantial comorbidity and/or complication	527	70	127	87	110	133	7.3	7.1	6.6	7.2	7.5	7.8
Unrelated operating room procedures	406	49	72	67	99	118	10.7	7.2	8.2	11.0	11.0	13.2
Alcohol- and substance-induced organic mental syndrome	403	133	61	48	96	65	10.0	8.3	11.0	13.9	9.4	10.9
Dilation and curettage of uterus, conization except for malignancy	392	66	82	50	99	95	1.9	2.0	1.7	2.0	1.9	2.0
Psychoses	383	44	54	46	122	117	16.9	22.0	15.4	12.2	17.5	16.8
Esophagitis, gastroenteritis, and miscellaneous digestive disorders, ages 0-17 years	379	74	87	59	91	67	3.7	3.0	3.6	4.1	3.6	4.1
Abortion with dilation and curettage of uterus	355	40	65	46	83	122	1.4	1.8	1.3	1.5	1.6	1.1
Bronchitis and asthma, ages 0-17 years	299	55	75	43	70	56	4.1	3.3	4.3	4.6	4.3	3.9
Tonsillectomy and/or adenoidectomy, ages 0-17 years	295	52	61	62	67	53	1.7	1.8	1.9	1.6	1.6	1.8
Inguinal and femoral hernia procedures, ages 18-69 years without substantial comorbidity and/or complication	253	41	44	43	73	53	4.4	4.6	4.3	4.5	4.3	4.4
Diabetes, age more than 35 years	249	57	42	41	57	51	8.1	6.8	7.8	8.0	9.3	8.5
Vaginal delivery with sterilization and/or dilation and curettage of uterus	246	47	53	31	48	67	3.6	3.3	3.4	3.5	3.8	4.0
Simple pneumonia and pleurisy, ages 0-17 years	243	75	57	39	38	34	5.1	4.2	5.3	6.0	5.3	5.1
Knee procedures, age less than 70 years without substantial comorbidity and/or complication	232	22	33	53	66	59	4.6	4.2	4.2	4.6	4.9	4.6
Hypertension	229	56	45	33	52	43	5.9	5.0	5.8	6.2	6.1	7.0
Otitis media and upper respiratory infection, ages 0-17 years	227	58	59	34	43	33	3.3	2.9	3.3	3.6	3.2	3.8

Table 4. Number of discharges and average length of stay of patients 65 years of age and over discharged from short-stay hospitals, by selected diagnosis-related groups and hospital bed size: United States, 1981

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

Diagnosis-related group	All hospitals	6-99 beds	100-199 beds	200-299 beds	300-499 beds	500 or more beds	All hospitals	6-99 beds	100-199 beds	200-299 beds	300-499 beds	500 or more beds
	Number in thousands						Average length of stay-in days					
All discharges.....	10,408	2,160	1,867	1,741	2,543	2,097	10.5	8.3	9.8	10.9	11.3	11.9
Atherosclerosis, age greater than 69 years and/or substantial comorbidity and complication.....	422	93	85	79	98	68	9.4	7.3	9.1	9.6	10.5	10.5
Lens procedures.....	387	32	79	77	115	82	3.2	3.2	3.2	3.1	3.1	3.3
Esophagitis, gastroenteritis, and miscellaneous digestive disorders, age greater than 69 years and/or substantial comorbidity and complication.....	372	127	69	58	73	46	7.0	6.3	7.0	7.2	7.8	7.4
Heart failure and shock.....	363	105	67	61	74	56	9.9	8.6	9.8	9.3	11.2	11.1
Chronic obstructive pulmonary disease.....	304	89	62	46	64	42	9.9	8.4	10.2	10.2	10.8	10.9
Specific cerebrovascular disorders except transient ischemic attack.....	294	66	56	47	70	54	15.8	12.2	14.9	18.2	16.8	17.4
Simple pneumonia and pleurisy, age greater than 69 years and/or substantial comorbidity and complication.....	281	101	47	38	57	37	11.2	10.1	10.7	13.1	12.5	11.2
Diabetes, age greater than 35 years.....	218	56	44	36	50	32	9.9	8.1	10.7	10.0	10.6	10.7
Unrelated operating room procedures.....	211	22	42	39	57	51	18.5	13.1	15.3	20.3	18.5	21.9
Circulatory disorders with acute myocardial infarction without cardiovascular complications, discharged alive.....	179	38	28	38	44	31	12.6	10.4	13.2	12.3	14.0	13.1
Medical back problems.....	173	47	32	26	39	29	8.8	8.1	7.9	8.5	9.6	10.1
Cardiac arrhythmia and conduction disorders, age greater than 69 years and/or substantial comorbidity and complication.....	168	45	29	28	33	33	7.3	5.8	6.2	7.7	7.8	9.6
Hypertension.....	162	50	35	24	27	26	7.7	6.9	7.7	7.8	7.9	8.9
Angina pectoris.....	161	46	31	23	39	22	7.0	5.6	6.7	8.3	7.7	7.8
Transient ischemic attacks.....	150	37	30	30	34	19	7.6	5.6	6.3	7.6	10.0	9.2
Transurethral prostatectomy, age greater than 69 years and/or substantial comorbidity and complication.....	140	18	33	22	34	33	10.5	9.7	10.2	9.8	10.6	11.7
Bronchitis and asthma, age greater than 60 years and/or substantial comorbidity and complication.....	126	38	26	17	28	17	8.7	6.8	8.9	9.1	10.6	9.3
Gastrointestinal hemorrhage, age greater than 69 years and/or substantial comorbidity and complication.....	126	26	21	19	34	24	9.2	7.2	9.4	9.5	10.1	9.8
Respiratory neoplasms.....	126	15	18	21	35	36	11.3	11.4	9.9	12.3	11.7	10.9
Kidney and urinary tract infections, age greater than 69 years and/or substantial comorbidity and complication.....	124	43	24	14	25	18	9.3	8.4	8.8	9.6	10.0	10.5

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⁶U.S. Public Health Service and Health Care Financing Administration: *International Classification of Diseases, 9th Revision, Clinical Modification*. DHHS Pub. No. (PHS) 80-1260. Public Health Service. Washington. U.S. Government Printing Office, Sept. 1980.

⁷*Federal Register*. Vol. 48, No. 171, Part II, Rules and Regulations, Sept. 1, 1983.

Technical notes

Survey methodology

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, and 1981. The sample for 1981 consisted of 550 hospitals. Of these, 71 refused to participate, and 51 were out of scope either because the hospital had gone out of business or because it failed to meet the definition of a short-stay hospital. Thus 428 hospitals participated in the survey during 1981 and provided approximately 227,000 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 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 were entered on the face sheet of the medical record.

Statistics produced by 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 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.^{3,4}

Diagnosis-related groups

The diagnosis-related groups (DRG's) used in this report were produced using the most current DRG program available at the time (summer of 1983). This is a computer program that groups patients into DRG's based on diagnostic, surgical, and

NOTE: A list of references follows the text.

patient information. The program is maintained and is commercially available at Health Systems International (DRG Support Group, 100 Broadway, New Haven, Conn. 06511). However, the actual program used to produce estimates in this report was obtained from the Health Care Financing Administration.

To help interpret the data in this report, two points are worth mentioning. First, the entire NHDS file was used to produce estimates, including outliers. None of the data was excluded, or trimmed, because of an abnormally long length of stay. Second, the NHDS only codes three ICD-9-CM Class 4 procedures:^{5,6} circumcision, code 64.0; episiotomy, code 73.6; and removal of intrauterine contraceptive device, code 97.71. In certain instances Class 4 procedures can alter the DRG designation for a patient. The effect of not coding these procedures in the NHDS on determining DRG's is unknown, but probably quite small. In all other respects, the DRG's presented in this report are consistent with those in the *Federal Register* of Thursday, September 1, 1983.⁷

In publications from the National Center for Health Statistics using NHDS data, several schemes have been used to group patients into categories based on either their diagnoses or the procedures performed. These groups were developed to report general purpose statistics to the many users of NHDS data, and any similarity between the titles of those categories and DRG titles is coincidental.

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. Table I shows relative standard errors for discharges and first-listed diagnoses for 1981. The standard errors for average lengths of stay are shown in table II. Estimates have been rounded to the nearest thousand. For this reason detailed figures within tables do not always add to the totals.

Tests 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,"

NOTE: A list of references follows the text.

Table I. Approximate relative standard errors of estimated number of discharges and first-listed diagnoses: United States, 1981

Size of estimate	Relative standard error
10,000	16.3
20,000	10.2
50,000	8.5
100,000	6.6
200,000	5.9
500,000	5.1
1,000,000	4.0
4,000,000	4.0

Table II. Approximate standard errors of average lengths of stay by number of discharges: United States, 1981

Number of discharges	Average length of stay in days			
	2	6	10	20
	Standard error in days			
10,000	0.7	1.2	1.7	2.2
50,000	0.3	0.7	1.0	1.4
100,000	0.3	0.6	0.9	1.2
500,000	0.2	0.5	0.8	0.9
1,000,000	0.2	0.5	0.8	0.7
5,000,000	0.2	0.5	0.8	...

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

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.

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.

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

Discharge—Discharge is 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.

Geographic region—Hospitals are classified by location in one of the four geographic regions of the United States that correspond to those used by the U.S. Bureau of the Census:

Region	States included
Northeast	Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania
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, 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

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—Size is 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 is based on the number of beds at or near midyear reported by the hospitals.

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