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VITAL STATISTICS REPORT

Hospital Discharge Survey—Provisional Data

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Utilization of Short-Stay Hospitals, by Diagnosis: United States, 1966 and 1967

This report presents data on diseases and conditions diagnosed for patients discharged from short-stay hospitals in the United States in 1966 and 1967. The data are estimates based on information collected by the Hospital Discharge Survey (HDS) from hospital records in a sample of inpatients discharged from a national sample of the short-stay hospitals (average length of stay less than 30 days). A detailed analysis of 1965 short-stay hospital utilization by diagnosis has been reported previously in *Vital and Health Statistics*, PHS Publication No. 1000, Series 13, No. 6.

An estimated 28.5 million patients, excluding newborn infants, were discharged from short-stay hospitals in 1966 and an estimated 28.0 million in 1967. In 1965, the first calendar year of the Hospital Discharge Survey, there were 28.8 million discharges.

Although there were fewer discharges in 1967 than in 1966, there was an increase in the number of days of care provided (235.1 million days in 1967 as compared with 230.5 million days in 1966). As a result the average length of stay increased from 8.1 days in 1966 to 8.4 days in 1967.

The number of first-listed diagnoses (the only or the first of multiple diagnoses) reported for inpatients discharged during 1966 and 1967 is shown by age in tables 1 and 2. The diagnostic classes used correspond to the major classes, with some modifications, of the *International Classification of Diseases, Adapted (ICDA)*, revised edition, December 1962, PHS Pub. No. 719. Selected detailed diagnostic categories with relatively high frequencies have also been presented.

More than 40 percent of the discharges both in 1966 and 1967 can be attributed to three ICDA diagnostic classes: (1) deliveries and complications of

pregnancy and the puerperium, which accounted for 16 percent of all patients discharged each year; (2) diseases of the digestive system, which accounted for 15 percent of all discharges each year; and, (3) diseases of the respiratory system, which accounted for 12 percent of all discharges in 1966 and for 11 percent in 1967. The rank order of all the ICDA classes was identical for both years.

The diagnostic categories for malignant neoplasms, diseases of the heart, hypertrophy of tonsils and adenoids, and fractures each accounted for over a million discharges both in 1966 and 1967.

The two diagnostic classes, diseases of the digestive system and injuries and adverse effects of chemical and other external causes, appear among the five leading ICDA classes in each age group in 1966 and 1967. The leading class for each age group was as follows: under 15 years—diseases of the respiratory system; 15-44 years—deliveries and complications of pregnancy and the puerperium; 45-64 years—diseases of the digestive system; and, 65 years and over—diseases of the circulatory system. The chart below shows the discharge rates per 10,000 population for the three leading causes of hospitalization in each age group for 1966 and 1967.

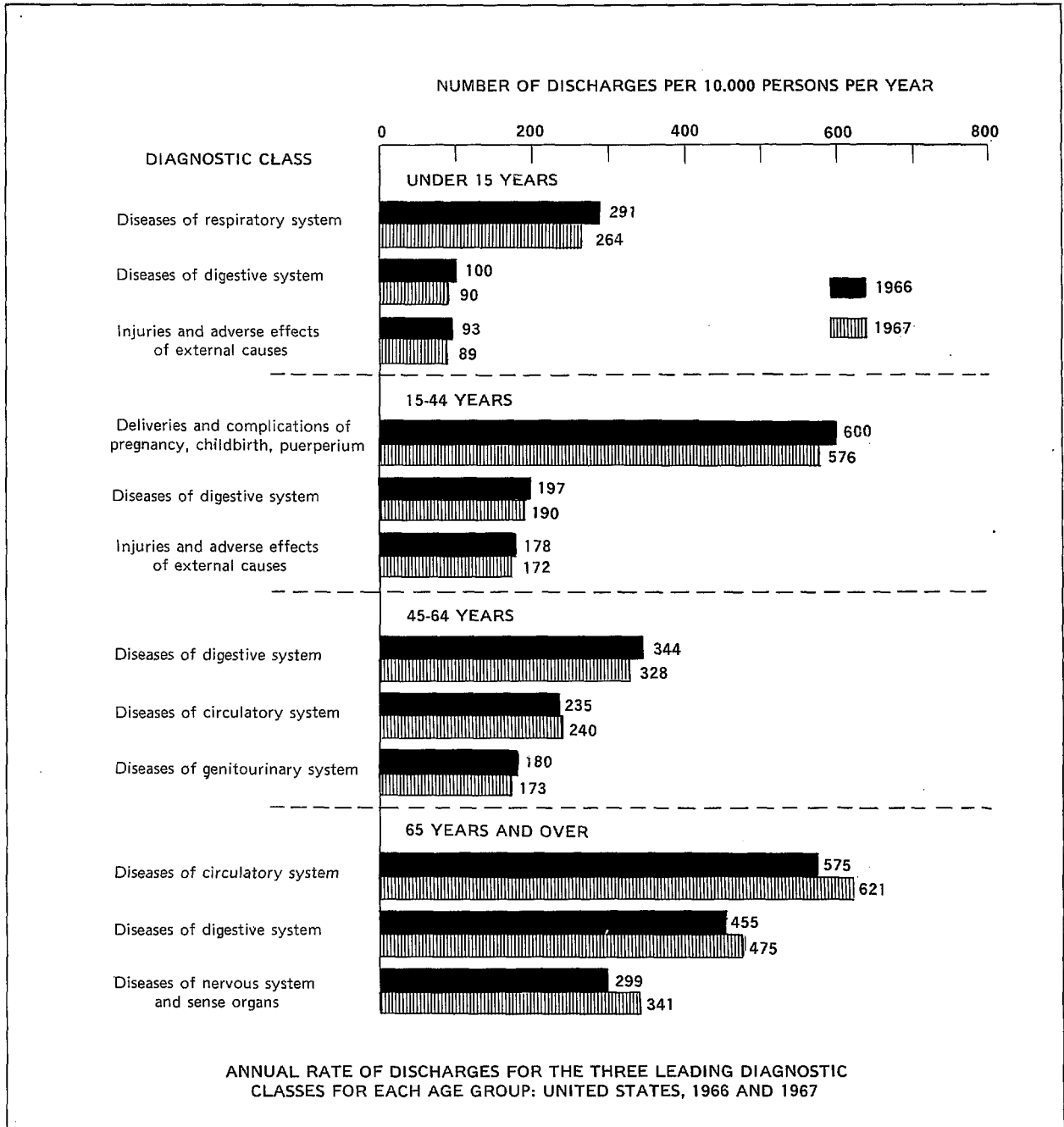
The average length of stay for the diagnostic categories presented was longest for acute coronary occlusion with an average stay of 17.1 days in 1966 and 18.9 days in 1967 (tables 3 and 4). Two other conditions which required long periods of hospitalization were vascular lesions affecting the central nervous system, with an average stay of 16.6 days in 1966 and 16.9 days in 1967, and malignant neoplasms, with an average stay of 15.5 days in 1966 and 15.9 days in 1967. The length of stay was shortest for

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hypertrophy of tonsils and adenoids with an average of 1.9 days in 1966 and 2.1 days in 1967.

The number of all-listed diagnoses is shown in tables 3 and 4 for 1966 and 1967. An aggregate of up to five diagnoses were coded per sample discharge.

An estimated 47.1 million diagnoses were reported for the 28.5 million discharges in 1966, and an estimated 46.5 million for the 28.0 million discharges in 1967. The number of diagnoses per episode of hospitalization averaged 1.7 each year.



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Table 1. Number of inpatients discharged from short-stay hospitals, by category of first-listed diagnosis and age: United States, 1966

(Excludes newborn. Diagnostic groupings and code number inclusions are based on the International Classification of Diseases Adapted, revised edition, December 1962)

Diagnostic category	All ages ¹	Under 15 years	15-44 years	45-64 years	65+ years
Number of inpatients discharged in thousands					
All conditions-----	28,477	4,224	12,693	6,589	4,911
Excluding obstetrical conditions-----	23,952	4,211	8,193	6,576	4,911
Infective and parasitic diseases-----002-138	339	112	134	55	37
Malignant neoplasms-----140-205	1,034	18	164	425	424
Benign neoplasms and neoplasms of unspecified nature-----210-239	906	50	505	281	69
Allergic, endocrine system, metabolic and nutritional diseases-----240-289	741	67	234	255	184
Hay fever and asthma-----240-241	116	26	34	35	21
Diabetes mellitus-----260	327	15	65	123	124
Diseases of blood and blood-forming organs-----290-299	183	32	44	46	60
Mental, psychoneurotic, and personality disorders-----300-329	759	25	425	226	81
Diseases of the nervous system and sense organs-----330-398	1,394	235	259	368	529
Vascular lesions affecting central nervous system-----330-334	420	25	20	110	285
Cataract-----385	169	23	26	49	112
Diseases of the circulatory system-----400-468	2,458	66	454	917	1,019
Acute coronary occlusion-----420.1	363	-	27	163	173
All other diseases of the heart-----400-420.0,420.2-443	1,192	23	121	418	628
Hemorrhoids (with and without ulcer)-----461	232	-	118	96	18
Diseases of the respiratory system-----470-527	3,443	1,742	757	502	435
Acute upper respiratory infections-----470-475	489	290	118	53	29
Hypertrophy of tonsils and adenoids-----510	1,138	928	198	26	*
Pneumonia (all forms)-----490-493	755	311	123	140	180
Diseases of the digestive system-----530-587	4,239	597	1,482	1,343	807
Ulcer of stomach, duodenum, and gastrojejunal ulcer-----540-542	526	10	189	225	101
Appendicitis-----550-552	364	131	182	37	11
Inguinal hernia-----560.0,561.0	515	141	126	163	83
Gastroenteritis and colitis, except ulcerative-----571	553	193	176	111	74
Cholelithiasis and cholecystitis-----584-585	521	-	163	209	147
Diseases of the genitourinary system-----590-637	2,581	205	1,277	702	392
Hyperplasia of prostate-----610	192	24	59	129	26
Disorders of menstruation-----634	379	26	268	99	26
Deliveries and complications of pregnancy, childbirth, and puerperium-----640-689,Y06-Y07	4,525	13	4,500	12	...
Diseases of the skin and cellular tissue-----690-716	403	74	166	100	61
Diseases of the bones and organs of movement-----720-749	1,088	92	419	404	172
Arthritis (all forms)-----720-725	264	8	48	116	91
Displacement of intervertebral-----735	229	*	124	90	13
Congenital malformations-----750-759	213	118	59	25	10
Injuries and adverse effects of chemical and other external causes-----800-999,Y10.0	2,958	559	1,335	614	435
Fractures (all sites)-----800-826	1,037	200	347	225	262
Laceration and open wound-----870-898	376	68	221	65	20
All other conditions and special admissions-----residual	1,216	220	479	315	198

¹Includes data for age not stated.

Caution should be exercised in the use of this statistic since the relative standard error of the estimated number of discharges exceeds 25 percent.

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Table 2. Number of inpatients discharged from short-stay hospitals, by category of first-listed diagnosis and age: United States, 1967

(Excludes newborn. Diagnostic groupings and code number inclusions are based on the International Classification of Diseases Adapted, revised edition, December 1962)

Diagnostic category	All ages ¹	Under 15 years	15-44 years	45-64 years	65+ years
	Number of inpatients discharged in thousands				
All conditions-----	27,964	4,021	12,279	6,386	5,215
Excluding obstetrical conditions-----	23,565	4,007	7,904	6,376	5,215
Infective and parasitic diseases-----002-138	309	99	118	54	36
Malignant neoplasms-----140-205	1,032	21	157	413	434
Benign neoplasms and neoplasms of unspecified nature-----210-239	868	52	472	271	70
Allergic, endocrine system, metabolic and nutritional diseases-----240-289	741	69	214	249	206
Hay fever and asthma-----240-241	124	31	35	34	24
Diabetes mellitus-----260	349	15	63	126	143
Diseases of blood and blood-forming organs-----290-299	172	27	46	39	57
Mental, psychoneurotic, and personality disorders-----300-329	753	27	415	221	87
Diseases of the nervous system and sense organs-----330-398	1,466	226	257	364	615
Vascular lesions affecting central nervous system-----330-334	453	² 6	18	106	322
Cataract-----385	208	² 3	² 6	56	143
Diseases of the circulatory system-----400-468	2,576	68	434	951	1,120
Acute coronary occlusion-----420.1	362	-	24	173	164
All other diseases of the heart-----400-420.0, 420.2-443	1,293	18	115	434	724
Hemorrhoids (with and without ulcer)-----461	216	-	107	83	26
Diseases of the respiratory system-----470-527	3,118	1,581	679	434	418
Acute upper respiratory infections-----470-475	400	233	98	42	28
Hypertrophy of tonsils and adenoids-----510	1,068	859	198	8	² 3
Pneumonia (all forms)-----490-493	665	289	99	112	164
Diseases of the digestive system-----530-587	4,157	541	1,447	1,300	856
Ulcer of stomach, duodenum, and gastrojejunal ulcer-----540-542	507	² 5	180	211	110
Appendicitis-----550-552	332	123	171	26	9
Inguinal hernia-----560.0,561.0	484	111	120	160	93
Gastroenteritis and colitis, except ulcerative-----571	550	184	174	106	86
Cholelithiasis and cholecystitis-----584-585	517	-	176	193	146
Diseases of the genitourinary system-----590-637	2,581	215	1,262	687	412
Hyperplasia of prostate-----610	182	-	² 3	49	130
Disorders of menstruation-----634	374	² 3	262	102	² 7
Deliveries and complications of pregnancy, childbirth, and puerperium-----640-689, Y06-Y07	4,399	14	4,375	9	...
Diseases of the skin and cellular tissue-----690-716	393	71	159	99	61
Diseases of the bones and organs of movement-----720-749	1,092	91	416	384	199
Arthritis (all forms)-----720-725	280	8	51	112	108
Displacement of intervertebral disc-----735	237	*	123	100	12
Congenital malformations-----750-759	226	126	61	29	10
Injuries and adverse effects of chemical and other external causes-----800-999, Y10.0	2,875	535	1,308	582	438
Fractures (all sites)-----800-826	1,050	201	356	218	270
Laceration and open wound-----870-898	353	62	210	60	19
All other conditions and special admissions-----residual	1,207	255	457	298	194

¹Includes data for age not stated.²Caution should be exercised in the use of this statistic since the relative standard of error of the estimated number of discharges exceeds 25 percent.

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Table 3. Number of all-listed and first-listed diagnoses, days of care and average length of stay for inpatients discharged from short-stay hospitals, by category of first-listed diagnosis: United States, 1966

(Excludes newborn. Diagnostic groupings and code number inclusions are based on the International Classification of Diseases Adapted, revised edition, December 1962)

Diagnostic category	Number of all-listed diagnoses	First-listed diagnoses		
		Number	Days of care	Average length of stay
		(In thousands)		(In days)
All conditions-----	47,119	28,477	230,453	8.1
Excluding obstetrical conditions-----	42,176	23,952	211,329	8.8
Infective and parasitic diseases-----002-138	618	339	3,635	10.7
Malignant neoplasms-----140-205	1,649	1,034	16,056	15.5
Benign neoplasms and neoplasms of unspecified nature--210-239	1,590	906	6,259	6.9
Allergic, endocrine system, metabolic and nutritional diseases-----240-289	2,128	741	7,768	10.5
Hay fever and asthma-----240-241	218	116	1,059	9.1
Diabetes mellitus-----260	1,032	327	4,090	12.5
Diseases of blood and blood-forming organs-----290-299	675	183	1,840	10.1
Mental, psychoneurotic, and personality disorders-----300-329	1,397	759	9,655	12.7
Diseases of the nervous system and sense organs-----330-398	2,520	1,394	14,927	10.7
Vascular lesions affecting central nervous system-----330-334	700	420	6,966	16.6
Cataract-----385	203	169	1,390	8.2
Diseases of the circulatory system-----400-468	5,376	2,458	29,760	12.1
Acute coronary occlusion-----420.1	423	363	6,209	17.1
All other diseases of the heart-----400-420.0, 420.2-443	3,098	1,192	14,544	12.2
Hemorrhoids (with and without ulcer)-----461	356	232	1,610	7.0
Diseases of the respiratory system-----470-527	4,997	3,443	18,989	5.5
Acute upper respiratory infections-----470-475	692	489	2,329	4.8
Hypertrophy of tonsils and adenoids-----510	1,192	1,138	2,178	1.9
Pneumonia (all forms)-----490-493	1,086	755	6,854	9.1
Diseases of the digestive system-----530-587	6,402	4,239	33,941	8.0
Ulcer of stomach, duodenum, and gastrojejunal ulcer-----540-542	706	526	5,335	10.1
Appendicitis-----550-552	413	364	2,523	6.9
Inguinal hernia-----560.0, 561.0	597	515	3,504	6.8
Gastroenteritis and colitis, except ulcerative-----571	690	553	2,839	5.1
Cholelithiasis and cholecystitis-----584-585	682	521	5,641	10.8
Diseases of the genitourinary system-----590-637	4,948	2,581	18,058	7.0
Hyperplasia of prostate-----610	321	192	2,846	14.8
Disorders of menstruation-----634	500	379	1,636	4.3
Deliveries and complications of pregnancy, childbirth, and puerperium-----640-689, Y06-Y07	4,943	4,525	19,124	4.2
Diseases of the skin and cellular tissue-----690-716	744	403	3,183	7.9
Diseases of the bones and organs of movement-----720-749	2,009	1,088	10,819	9.9
Arthritis (all forms)-----720-725	690	264	3,239	12.3
Displacement of intervertebral disc-----735	294	229	2,941	12.9
Congenital malformations-----750-759	402	213	1,806	8.5
Injuries and adverse effects of chemical and other external causes-----800-999, Y10.0	4,356	2,958	26,090	8.8
Fractures (all sites)-----800-826	1,256	1,037	13,272	12.8
Laceration and open wound-----870-898	597	376	1,860	5.0
All other conditions and special admissions-----residual	2,364	1,216	8,543	7.0

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Table 4. Number of all-listed and first-listed diagnoses, days of care and average length of stay for inpatients discharged from short-stay hospitals, by category of first-listed diagnosis: United States, 1967

(Excludes newborn. Diagnostic groupings and code number inclusions are based on the International Classification of Diseases Adapted, revised edition, December 1962)

Diagnostic category	Number of all-listed diagnoses	First-listed diagnoses		
		Number	Days of care	Average length of stay
		(In thousands)		(In days)
All conditions-----	46,475	27,964	235,057	8.4
Excluding obstetrical conditions-----	41,673	23,565	215,737	9.2
Infective and parasitic diseases-----002-138	572	309	3,149	10.2
Malignant neoplasms-----140-205	1,622	1,032	16,395	15.9
Benign neoplasms and neoplasms of unspecified nature--210-239	1,513	868	6,142	7.1
Allergic, endocrine system, metabolic and nutritional diseases-----240-289	2,163	741	8,084	10.9
Hay fever and asthma-----240-241	206	124	1,098	8.8
Diabetes mellitus-----260	1,100	349	4,627	13.2
Diseases of blood and blood-forming organs-----290-299	636	172	1,800	10.5
Mental, psychoneurotic, and personality disorders----300-329	1,395	753	9,329	12.4
Diseases of the nervous system and sense organs-----330-398	2,620	1,466	16,334	11.1
Vascular lesions affecting central nervous system-----330-334	751	453	7,639	16.9
Cataract-----385	249	208	1,809	8.7
Diseases of the circulatory system-----400-468	5,649	2,576	32,638	12.7
Acute coronary occlusion-----420.1	428	362	6,847	18.9
All other diseases of the heart-----400-420.0, 420.2-443	3,294	1,293	16,198	12.5
Hemorrhoids (with and without ulcer)-----461	341	216	1,700	7.9
Diseases of the respiratory system-----470-527	4,607	3,118	18,582	6.0
Acute upper respiratory infections-----470-475	583	400	2,080	5.2
Hypertrophy of tonsils and adenoids-----510	1,115	1,068	2,212	2.1
Pneumonia (all forms)-----490-493	972	665	6,500	9.8
Diseases of the digestive system-----530-587	6,259	4,157	34,802	8.4
Ulcer of stomach, duodenum, and gastrojejunal ulcer-----540-542	688	507	5,381	10.6
Appendicitis-----550-552	377	332	2,297	6.9
Inguinal hernia-----560.0, 561.0	558	484	3,433	7.1
Gastroenteritis and colitis, except ulcerative-----571	670	550	2,975	5.4
Cholelithiasis and cholecystitis-----584-585	679	517	5,913	11.4
Diseases of the genitourinary system-----590-637	4,937	2,581	18,287	7.1
Hyperplasia of prostate-----610	315	182	2,397	13.2
Disorders of menstruation-----634	484	374	1,578	4.2
Deliveries and complications of pregnancy, childbirth, and puerperium-----640-689, Y06-Y07	4,802	4,399	19,320	4.4
Diseases of the skin and cellular tissue-----690-716	728	393	3,140	8.0
Diseases of the bones and organs of movement-----720-749	1,990	1,092	10,778	9.9
Arthritis (all forms)-----720-725	706	280	3,234	11.6
Displacement of intervertebral disc-----735	292	237	2,899	12.2
Congenital malformations-----750-759	399	226	2,054	9.1
Injuries and adverse effects of chemical and other external causes-----800-999, Y10.0	4,229	2,875	26,199	9.1
Fractures (all sites)-----800-826	1,262	1,050	13,411	12.8
Laceration and open wound-----870-898	557	353	2,161	6.1
All other conditions and special admissions-----residual	2,355	1,207	8,025	6.6

Technical Notes

SOURCE OF DATA. The Hospital Discharge Survey collects data on patients discharged from noninstitutional short-stay hospitals located in the 50 States and the District of Columbia. This report excludes all newborn infants. Data for 1966 exclude military and Veterans Administration hospitals, and data for 1967 exclude all Federal hospitals. In 1966 and 1967 a sample of about 140,000 patients from the civilian noninstitutional population was obtained from a sample of approximately 300 hospitals.

SAMPLE. The estimates presented are subject to sampling error since a sample rather than the entire population has been surveyed. The standard errors for the number of discharges are shown in the table below.

Table I. Approximate standard errors of estimated numbers of discharges

Size of estimate	Standard error	Size of estimate	Standard error
3,000--	980	600,000	23,400
5,000--	1,430	1,000,000	38,000
10,000--	2,230	2,000,000	65,000
20,000--	3,020	6,000,000	170,000
60,000--	4,860	10,000,000	270,000
100,000--	7,300	20,000,000	500,000
200,000--	12,200	30,000,000	750,000

DEFINITIONS. *Short-stay hospitals* are general and short-term special hospitals having 6 or more beds

for inpatient use and an average stay of less than 30 days.

A *patient or inpatient* is a person who has been formally admitted to the inpatient service of a short-stay hospital for observation, care, diagnosis, or treatment.

A *discharge* is the formal release of an inpatient by a hospital, i.e., the termination of a period of hospitalization by death or by disposition to place of residence, nursing home, or another hospital. In this report, the number of discharges is exclusive of newborn infants. "Discharges" and "patients (or inpatients) discharged" are used synonymously.

Average length of stay is the total number of inpatient days accumulated by patients at time of discharge from short-stay hospitals during a specified calendar year divided by the number of patients discharged.

Discharged diagnoses are the diseases or injuries (or special conditions, examinations without sickness, etc.) that the attending physician has recorded on the medical records of discharged patients.

All-listed diagnoses are the estimated number of discharge diagnoses for inpatients discharged during a calendar year, in terms of the classification system used and the processing of not more than 5 codes per sample discharge.

First-listed diagnoses are the aggregate of individually coded diagnoses listed in position number 1 on the face sheet of the medical records for patients discharged, including single (only) and first of multiple discharge diagnoses.

EXPLANATION OF SYMBOLS USED IN TABLES

Category not applicable----- ...

Quantity zero----- -

Figure does not meet standards of reliability or precision----- *

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