



4A.

INPATIENT DISCHARGES FROM SHORT STAY HOSPITALS BY FIRST-LISTED DIAGNOSIS AND PATIENT CHARACTERISTICS

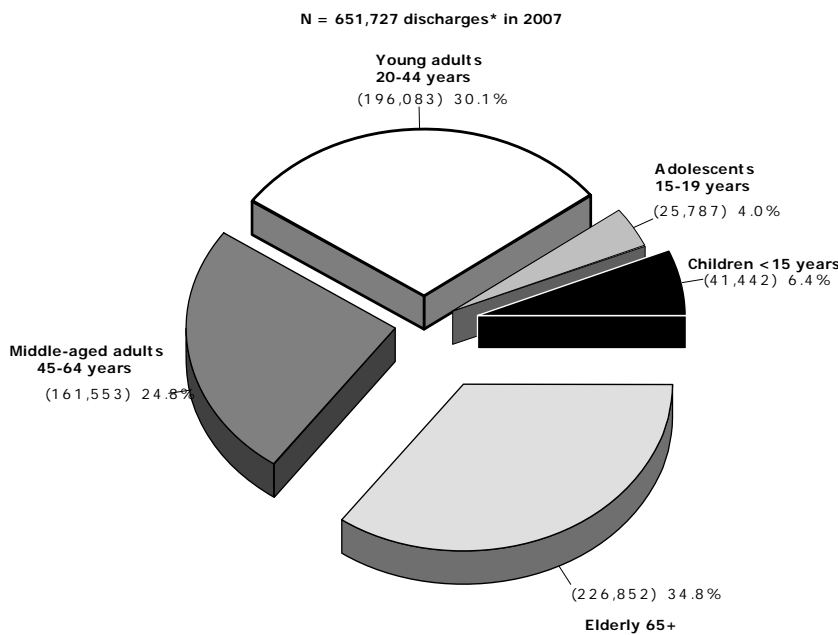
An inpatient discharge occurs when a person who was admitted to a hospital leaves that hospital. A person who has been hospitalized more than once in a given calendar year will be counted multiple times as a discharge; thus, the numbers in this report are for discharges, not persons. Federal, military and Department of Veteran Affairs' hospitals are excluded. All discharges are for residents of Arizona. Discharges of out-of-state residents are not included in this report. Discharges of inpatients exclude newborn infants. Diagnostic groupings and code numbers are based on the International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM).

Up to nine diagnoses are coded for each discharge. In this section, discharges are presented by first-listed diagnosis, which is the first one listed on the discharge summary of the medical record. The number of first-listed diagnoses is the same as the number of discharges. For comparability with the national data*, the discharge rates are presented per 10,000 population. The groupings of ICD-9-CM codes used to identify specific diagnostic categories can be accessed at <http://www.azdhs.gov/plan/hip/cat/icd9primary.xls>

*Findings of the National Hospital Discharge Survey are available in bound reports of the National Center for Health Statistics and online at <http://www.cdc.gov/nchs/about/major/hdasd/listpubs.htm>

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Figure 4A-1
Hospital Inpatient Discharges by Age Group, Arizona Residents, 2007



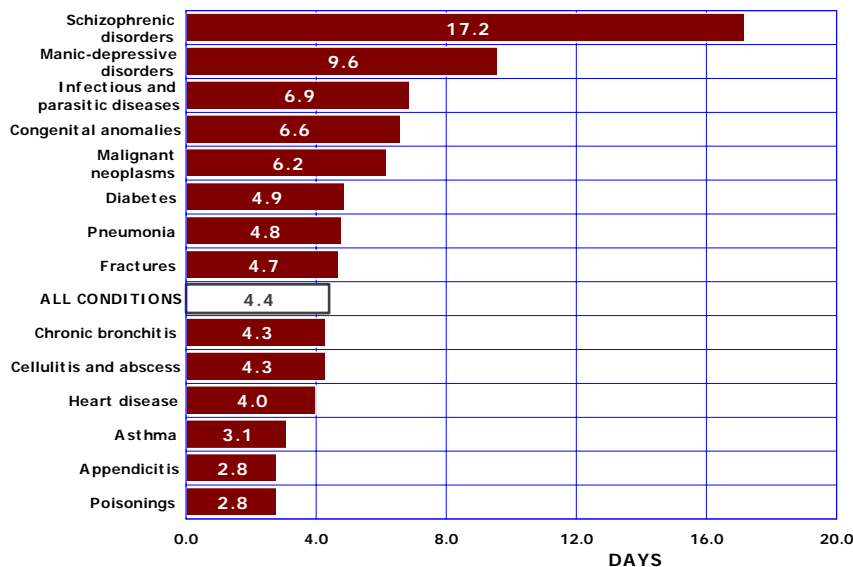
Excluding newborn infants.

In 2007, there were 651,727 inpatients discharged, excluding newborn infants, from non-Federal short stay hospitals in Arizona (Table 4A-1). Patients who were elderly (65 years or older) accounted for 34.8 percent of hospital discharges (Figure 4A-1), followed by young adults (20-44 years old) who comprised 30.1 percent of discharges, and middle-aged adults 45-64 year olds (24.8 percent of all inpatient discharges)

The discharge rate for all ages was 1013.3 per 10,000 resident population, 1.9 percent lower than the 2006 rate. The discharge rate of 1218.9 for females was 1.5 times greater than the rate of 808.6 for males

Diseases of the circulatory system were the most common diagnoses (15.4 percent of all discharges), followed by *digestive system* diagnoses (10.5 percent), and *injury* diagnoses (9.7 percent; percentages based on data in Table 4A-1).

Figure 4A-2
Average Length of Hospital Stay for Discharges with Selected First-listed Diagnosis, Arizona Residents, 2007



Based on the data from the National Hospital Discharge Survey*, the longest continuously running nationally representative survey of hospital utilization, the length of stay for inpatients has changed dramatically from 1970 through 2005. In 1970, the average length of stay was 7.8 days, with one-third of patients hospitalized for 8 days or more. In 2005, the average length of stay decreased nationally to 4.8 days, with only 16 percent of inpatients staying 8 days or more.

In 2007, the average length of hospital stay for Arizona inpatients was 4.4 days (Figure 4A-2, Table 4A-5). The percent of patients hospitalized for 3 days or less increased to 62.3 percent, with only 13.2 percent of inpatients staying 8 days or more.

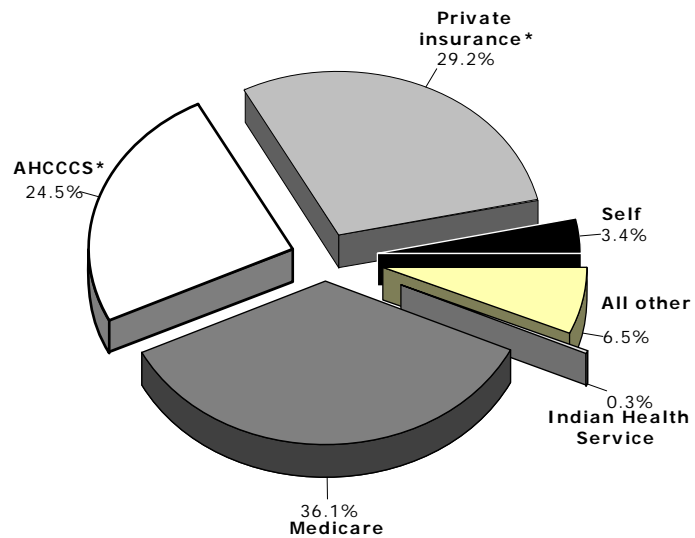
The average length of stay was 4 days for heart disease, 4.9 days for diabetes, 6.2 days for cancer, and 17.2 days for schizophrenic disorders.

*<http://www.cdc.gov/nchs/data/ad/ad385.pdf>

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Figure 4A-3
Hospital Inpatient Discharges by Payer, Arizona Residents, 2007

Medicare paid for 86.3 percent of inpatient discharges of persons aged 65 years or older (Table 4A-4) and 36.1 percent of all discharges (Figure 4A-3). Private insurance was the second most frequently recorded expected source of payment, accounting for 29.2 percent of inpatient discharges. The Arizona Health Care Cost Containment System (the State's Medicaid Program) accounted for 24.5 percent.

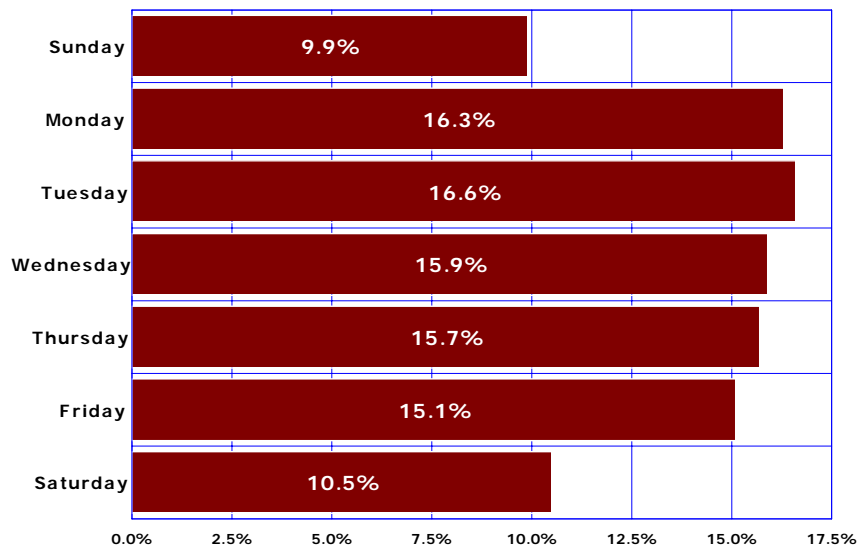


*Indemnity, HMO, PPO.

**The Arizona Health Care Cost Containment System is the State's Medicaid Program.

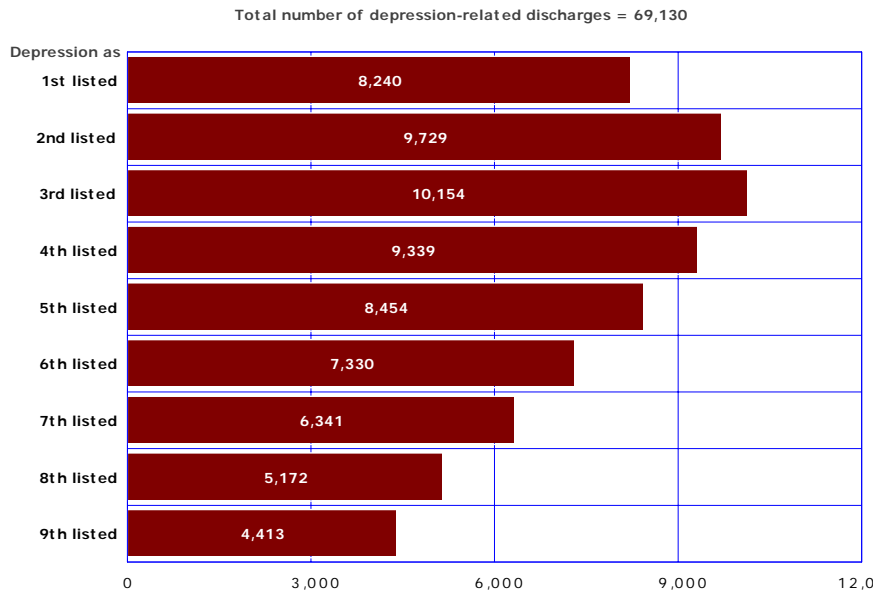
Figure 4A-4
Percent of Hospital Inpatient Admissions by Day of the Week, Arizona Residents, 2007

The rhythm of hospital births by day of the week (see Figure 1B-14) reveals that the daily average of resident live births in 2007 was substantially lower at weekends than on weekdays. The same pattern applies to hospital inpatient admissions excluding newborn infants (Figure 4A-4).



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Figure 4A-5
Number of Depression-related* Inpatient Discharges and Emergency Room Visits of Arizona Residents, 2007



In 2007, the ICD-9-CM diagnostic codes 300.4 and 311 for depression were used on 812 inpatient discharge and 7,428 emergency room records as the first-listed diagnosis (for a total of 8,240 hospital encounters; **Figure 4A-5, Table 4A-1, Table 7C-1**).

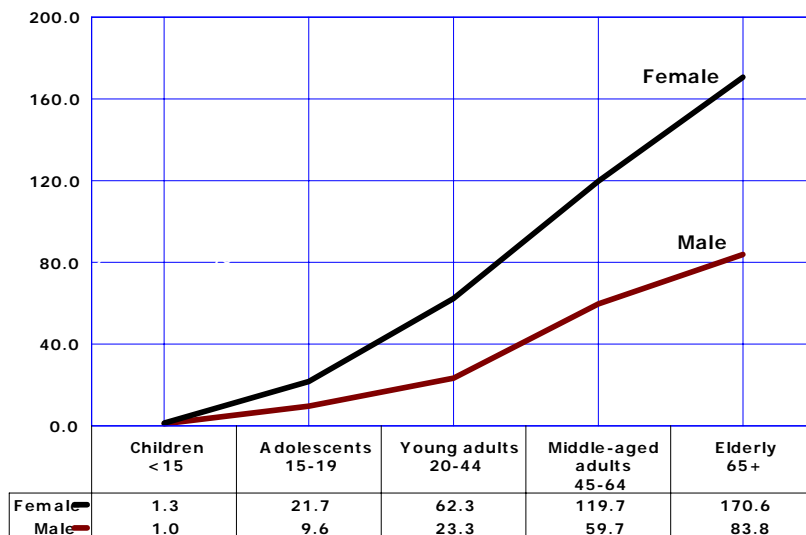
The extent, to which the first-listed diagnosis is the principal reason for hospitalization, ought not to be overestimated. More often than not, the first-listed diagnosis is the immediate, but not necessarily the underlying cause of hospitalization.

However, when we count all entries of this code within the nine diagnostic fields, depression was mentioned on 69,130 inpatient discharge and emergency room records. In fact, the depression diagnosis was substantially more frequently present as 2nd – 5th listed on the medical record than it was first-listed (**Figure 4A-5**).

When hospital data is used to estimate the prevalence of depression, it makes sense to include all mentions of this disorder in all diagnostic fields, not just the first one.

ICD-9 CM diagnostic codes 300.4 and 311.

Figure 4A-6
Depression-related Inpatient Hospitalization Rates* by Gender and Age Group, Arizona Residents, 2007



In 2007, depression diagnosis was mentioned on 34,548 or 5.3 percent of all inpatient discharge records.

The inpatient hospitalization rates tend to increase with age. In each age group, the depression-related hospitalization rates for females exceeded the rates for males (**Figure 4A-6**).

The disparity in depression-related hospitalization rates was 2.7 times as high for young adult females 20-44 years old (62.3 inpatient discharges with any mention of depression diagnosis per 10,000 females in this age group) as young adult males (23.3/10,000).

In 2007, females accounted for 69.7 percent of the 34,548 depression-related inpatient hospitalizations among Arizona residents.

*The number of depression-related (all occurrences of the depression diagnosis regardless of the location on the medical record) inpatient discharges per 10,000 population in specified group.

**TABLE 4A-1
NUMBER OF DISCHARGES* BY FIRST-LISTED DIAGNOSIS AND AGE GROUP, ARIZONA, 2007**

Category of first-listed diagnosis	Total	Age group					
		Children <15 years	Adoles- cents 15-19 years	Young adults 20-44 years	Middle- aged adults 45-64 years	Elderly 65+ years	Unknown
All categories	651,727	41,442	25,787	196,083	161,553	226,852	10
Infectious and parasitic diseases	21,387	2,257	453	3,701	5,603	9,373	0
Septicemia	10,428	184	99	1,105	3,043	5,997	0
Neoplasms	28,673	487	213	4,279	11,344	12,350	0
Malignant neoplasms	21,393	336	123	1,821	8,239	10,874	0
Large intestine	2,463	0	1	107	792	1,563	0
Prostate	2,268	2	0	20	1,174	1,072	0
Trachea bronchus and lung	2,641	6	11	95	855	1,674	0
Breast	1,295	0	0	143	594	558	0
Benign neoplasms	6,512	113	67	2,344	2,875	1,113	0
Endocrine nutritional metabolic and immunity diseases	22,890	2,078	623	5,262	7,265	7,662	0
Diabetes mellitus	9,605	440	414	2,824	3,397	2,530	0
Volume depletion	72	0	1	12	17	42	0
Diseases of the blood and blood forming organs	5,795	624	173	1,297	1,450	2,251	0
Mental disorders	17,071	422	632	7,893	5,352	2,772	0
Psychoses	13,387	245	399	6,205	4,240	2,298	0
Alcoholic psychoses	1,905	0	0	762	991	152	0
Drug psychoses	848	3	33	371	281	160	0
Schizophrenic disorders	2,589	1	61	1,555	844	128	0
Manic-depressive disorders	6,418	220	257	3,122	1,846	973	0
Neurotic disorders	3,675	176	231	1,685	1,110	473	0
Anxiety states	398	17	12	115	139	115	0
Depression	812	8	46	434	220	104	0
Drug dependence	167	0	6	114	41	6	0
Nondependent abuse of drugs	220	0	14	130	73	3	0
Alcohol dependence syndrome	566	0	3	222	267	74	0
Diseases of the nervous system	12,711	1,625	434	3,226	3,423	4,003	0
Diseases of the circulatory system	100,238	354	264	6,562	30,442	62,616	0
Heart disease	67,072	188	146	3,980	20,927	41,831	0
Acute myocardial infarction	9,832	0	4	501	3,529	5,798	0
Coronary arteriosclerosis	19,232	0	0	549	7,429	11,254	0

TABLE 4A-1 (continued)
 NUMBER OF DISCHARGES* BY FIRST-LISTED DIAGNOSIS AND AGE GROUP, ARIZONA, 2007

Category of first-listed diagnosis	Total	Age group					
		Children <15 years	Adolescents 15-19 years	Young adults 20-44 years	Middle-aged adults 45-64 years	Elderly 65+ years	Unknown
Other ischemic heart disease	1,525	2	1	110	638	774	0
Cardiac dysrhythmias	13,738	80	60	909	3,468	9,221	0
Congestive heart failure	10,355	27	9	477	2,334	7,508	0
Cerebrovascular disease	16,093	56	29	772	4,348	10,888	0
Diseases of the respiratory system	52,758	10,774	810	5,382	12,562	23,227	3
Acute bronchitis and bronchiolitis	3,813	3,143	4	115	219	332	0
Pneumonia	17,226	2,613	182	1,781	4,007	8,642	1
Chronic bronchitis	6,612	5	1	126	2,028	4,452	0
Asthma	6,810	2,721	164	1,135	1,561	1,229	0
Diseases of the digestive system	68,286	3,944	2,040	18,235	21,627	22,440	0
Appendicitis	7,912	1,758	903	3,299	1,421	531	0
Noninfectious enteritis and colitis	5,538	552	166	1,451	1,486	1,883	0
Diverticula of intestine	5,417	1	4	850	1,884	2,678	0
Cholelithiasis	9,236	74	345	3,629	2,719	2,469	0
Diseases of the genitourinary system	36,341	1,792	765	9,181	9,956	14,647	0
Calculus of kidney and ureter	2,949	25	98	1,126	1,091	609	0
Diseases of the skin and subcutaneous tissue	14,502	1,591	452	4,493	4,669	3,297	0
Cellulitis and abscess	12,360	1,351	353	4,023	3,996	2,637	0
Diseases of the musculoskeletal system	37,801	672	390	4,906	13,607	18,226	0
Osteoarthritis and allied disorders	16,485	0	4	340	6,009	10,132	0
Invertebral disc disorders	5,243	16	29	1,748	2,206	1,244	0
Congenital anomalies	3,063	1,930	147	392	396	198	0
Conditions originating in perinatal period	4,268	4,265	0	3	0	0	0
Symptoms signs and ill-defined conditions	35,567	2,839	586	6,805	12,662	12,675	0
Injury and poisoning	62,966	4,546	3,139	16,376	16,739	22,160	6
Fractures, all sites	21,784	1,675	1,086	4,928	4,397	9,696	2
Fracture of neck of femur	5,686	36	22	128	659	4,840	1
Poisonings	6,102	404	536	2,719	1,798	645	0

*Excluding newborn infants.

TABLE 4A-2
NUMBER OF DISCHARGES* BY FIRST-LISTED DIAGNOSIS AND GENDER, ARIZONA, 2007

Category of first-listed diagnosis	Total	Patient's gender	
		Female	Male
All categories	651,727	391,117	260,610
Infectious and parasitic diseases	21,387	11,270	10,117
Septicemia	10,428	5,458	4,970
Neoplasms	28,673	16,463	12,210
Malignant neoplasms	21,393	10,500	10,893
Large intestine	2,463	1,210	1,253
Prostate	2,268	0	2,268
Trachea bronchus and lung	2,641	1,293	1,348
Breast	1,295	1,285	10
Benign neoplasms	6,512	5,525	987
Endocrine nutritional metabolic and immunity diseases	22,890	12,832	10,058
Diabetes mellitus	9,605	4,439	5,166
Volume depletion	72	42	30
Diseases of the blood and blood forming organs	5,795	3,351	2,444
Mental disorders	17,071	8,095	8,976
Psychoses	13,387	6,344	7,043
Alcoholic psychoses	1,905	491	1,414
Drug psychoses	848	416	432
Schizophrenic disorders	2,589	982	1,607
Manic-depressive disorders	6,418	3,618	2,800
Neurotic disorders	3,675	1,747	1,928
Anxiety states	398	261	137
Depression	812	428	384
Drug dependence	167	63	104
Nondependent abuse of drugs	220	78	142
Alcohol dependence syndrome	566	150	416
Diseases of the nervous system	12,711	7,093	5,618
Diseases of the circulatory system	100,238	44,839	55,399
Heart disease	67,072	28,181	38,891
Acute myocardial infarction	9,832	3,780	6,052
Coronary arteriosclerosis	19,232	6,739	12,493

TABLE 4A-2 (continued)
 NUMBER OF DISCHARGES* BY FIRST-LISTED DIAGNOSIS AND GENDER, ARIZONA, 2007

Category of first-listed diagnosis	Total	Patient's gender	
		Female	Male
Other ischemic heart disease	1,525	604	921
Cardiac dysrhythmias	13,738	6,571	7,167
Congestive heart failure	10,355	4,526	5,829
Cerebrovascular disease	16,093	8,486	7,607
Diseases of the respiratory system	52,758	26,711	26,047
Acute bronchitis and bronchiolitis	3,813	1,762	2,051
Pneumonia	17,226	8,692	8,534
Chronic bronchitis	6,612	3,679	2,933
Asthma	6,810	3,918	2,892
Diseases of the digestive system	68,286	37,303	30,983
Appendicitis	7,912	3,441	4,471
Noninfectious enteritis and colitis	5,538	3,524	2,014
Diverticula of intestine	5,417	2,956	2,461
Cholelithiasis	9,236	6,295	2,941
Diseases of the genitourinary system	36,341	23,524	12,817
Calculus of kidney and ureter	2,949	1,450	1,499
Diseases of the skin and subcutaneous tissue	14,502	6,552	7,950
Cellulitis and abscess	12,360	5,506	6,854
Diseases of the musculoskeletal system	37,801	20,751	17,050
Osteoarthritis and allied disorders	16,485	9,622	6,863
Invertebral disc disorders	5,243	2,485	2,758
Congenital anomalies	3,063	1,462	1,601
Conditions originating in perinatal period	4,268	1,792	2,476
Symptoms signs and ill-defined conditions	35,567	20,056	15,511
Injury and poisoning	62,966	29,719	33,247
Fractures, all sites	21,784	11,019	10,765
Fracture of neck of femur	5,686	3,846	1,840
Poisonings	6,102	3,292	2,810

*Excluding newborn infants.

TABLE 4A-3
 NUMBER OF DISCHARGES* BY FIRST-LISTED DIAGNOSIS AND RACE/ETHNICITY, ARIZONA, 2007

Category of first-listed diagnosis	Total	Race/ethnicity						Other	Refused
		American Indian or Alaska Native	Asian or Pacific Islander	Black or African American	Hispanic or Latino	White non-Hispanic			
Total	651,727	21,725	9,836	26,040	135,638	444,309	8,017	6,162	
Infectious and parasitic diseases	21,387	1,008	363	994	3,898	14,701	257	166	
Septicemia	10,428	630	156	366	1,613	7,477	115	71	
Neoplasms	28,673	448	503	1,156	3,816	22,057	345	348	
Malignant neoplasms	21,393	312	342	656	2,461	17,107	246	269	
Large intestine	2,463	31	25	62	272	2,017	38	18	
Prostate	2,268	9	35	73	177	1,931	27	16	
Trachea bronchus and lung	2,641	22	41	94	179	2,241	26	38	
Breast	1,295	16	24	41	165	1,023	18	8	
Benign neoplasms	6,512	121	152	466	1,245	4,373	88	67	
Endocrine nutritional metabolic and immunity diseases	22,890	1,148	292	1,166	4,467	15,395	263	159	
Diabetes mellitus	9,605	743	119	640	2,422	5,491	120	70	
Volume depletion	72	0	0	3	10	56	3	0	
Diseases of the blood and blood forming organs	5,795	185	67	780	1,034	3,624	59	46	
Mental disorders	17,071	622	275	972	2,384	12,580	119	119	
Psychoses	13,387	439	221	793	1,774	9,987	84	89	
Alcoholic psychoses	1,905	184	7	47	229	1,416	15	7	
Drug psychoses	848	22	5	32	89	689	5	6	
Schizophrenic disorders	2,589	70	40	316	457	1,675	14	17	
Manic-depressive disorders	6,418	128	126	309	804	4,966	35	50	
Neurotic disorders	3,675	182	54	178	607	2,589	35	30	
Anxiety states	398	6	6	14	78	283	8	3	
Depression	812	30	12	42	123	592	9	4	
Drug dependence	167	3	3	14	25	119	0	3	
Nondependent abuse of drugs	220	16	2	28	38	133	2	1	
Alcohol dependence syndrome	566	65	6	10	61	418	3	3	
Diseases of the nervous system	12,711	429	206	571	2,175	9,026	130	174	
Diseases of the circulatory system	100,238	1,845	1,027	3,672	11,593	79,870	1,199	1,032	
Heart disease	67,072	1,154	658	2,248	7,453	54,204	815	540	
Acute myocardial infarction	9,832	210	99	250	1,219	7,813	152	89	
Coronary arteriosclerosis	19,232	223	213	466	2,027	15,844	277	182	

TABLE 4A-3 (continued)
 NUMBER OF DISCHARGES* BY FIRST-LISTED DIAGNOSIS AND RACE/ETHNICITY, ARIZONA, 2007

Category of first-listed diagnosis	Total	Race/ethnicity						Other	Refused
		American Indian or Alaska Native	Asian or Pacific Islander	Black or African American	Hispanic or Latino	White non-Hispanic	Other		
Other ischemic heart disease	1,525	56	16	44	173	1,205	22	9	
Cardiac dysrhythmias	13,738	190	120	305	1,183	11,679	146	115	
Congestive heart failure	10,355	225	88	514	1,405	7,991	101	31	
Cerebrovascular disease	16,093	258	213	511	1,881	12,670	176	384	
Diseases of the respiratory system	52,758	2,077	687	2,314	9,622	36,953	770	335	
Acute bronchitis and bronchiolitis	3,813	265	55	156	1,533	1,699	68	37	
Pneumonia	17,226	826	242	656	3,007	12,189	213	93	
Chronic bronchitis	6,612	42	37	189	420	5,863	35	26	
Asthma	6,810	215	103	633	1,684	4,038	89	48	
Diseases of the digestive system	68,286	2,508	907	2,202	14,264	47,228	721	456	
Appendicitis	7,912	194	162	175	2,619	4,591	95	76	
Noninfectious enteritis and colitis	5,538	139	88	172	883	4,166	63	27	
Diverticula of intestine	5,417	70	49	144	734	4,361	38	21	
Cholelithiasis	9,236	390	125	237	2,811	5,518	96	59	
Diseases of the genitourinary system	36,341	986	450	1,245	6,998	26,058	401	203	
Calculus of kidney and ureter	2,949	37	32	44	579	2,205	32	20	
Diseases of the skin and subcutaneous tissue	14,502	809	141	577	2,762	9,911	181	121	
Cellulitis and abscess	12,360	707	107	465	2,355	8,494	133	99	
Diseases of the musculoskeletal system	37,801	745	415	1,048	3,938	31,107	332	216	
Osteoarthritis and allied disorders	16,485	171	160	304	1,220	14,420	160	50	
Invertebral disc disorders	5,243	73	68	131	555	4,327	36	53	
Congenital anomalies	3,063	185	93	67	977	1,652	26	63	
Conditions originating in perinatal period	4,268	241	139	188	1,627	1,921	69	83	
Symptoms signs and ill-defined conditions	35,567	1,056	462	1,843	6,508	24,981	435	282	
Injury and poisoning	62,966	3,181	686	2,287	10,596	44,797	684	735	
Fractures, all sites	21,784	1,051	197	520	3,495	16,063	215	243	
Fracture of neck of femur	5,686	131	50	58	448	4,925	44	30	
Poisonings	6,102	263	88	233	913	4,475	81	49	

*Excluding newborn infants.

**TABLE 4A-4
NUMBER OF DISCHARGES* BY PRIMARY PAYER, GENDER, AGE GROUP, RACE/ETHNICITY
AND MARITAL STATUS, ARIZONA, 2007**

Selected characteristics		Total	Self	Private insurance (indemnity, HMO, PPO)	AHCCCS/Medicaid	Medicare	Other
Total		651,727	22,414	190,492	161,521	235,085	42,215
Gender	Female	391,117	11,284	120,272	110,773	126,987	21,801
	Male	260,610	11,130	70,220	50,748	108,098	20,414
Age group	Children <15 years	41,442	1,399	14,018	22,829	37	3,159
	Adolescents 15-19 years	25,787	1,195	6,696	16,061	58	1,777
	Young adults 20-44 years	196,083	11,603	79,069	83,253	8,958	13,200
	Middle-aged adults 45-64 years	161,553	6,721	76,164	36,202	30,231	12,235
	Elderly 65+ years	226,852	1,490	14,545	3,176	195,798	11,843
	Unknown	10	6	0	0	3	1
Race/ethnicity	American Indian or Alaska Native	21,725	720	3,502	9,862	4,920	2,721
	Asian or Pacific Islander	9,836	397	4,185	2,295	1,999	960
	Black or African American	26,040	967	6,899	9,460	6,880	1,834
	Hispanic or Latino	135,638	7,959	28,668	68,220	21,751	9,040
	White non-Hispanic	444,309	11,817	142,521	67,919	196,045	26,007
	Other	8,017	358	3,026	2,051	2,236	346
	Refused	6,162	196	1,691	1,714	1,254	1,307
Patient's marital status	Single	219,082	11,352	54,962	104,006	33,245	15,517
	Married	299,452	7,902	117,306	38,316	116,917	19,011
	Life Partner	1,736	93	342	1,033	207	61
	Separated	5,767	366	1,259	2,388	1,389	365
	Divorced	45,855	1,640	10,709	11,459	19,284	2,763
	Widowed	75,748	717	5,149	3,051	62,731	4,100
	Unknown	4,087	344	765	1,268	1,312	398

*Excluding newborn infants.

TABLE 4A-5
 AVERAGE LENGTH OF STAY FOR DISCHARGES* BY FIRST-LISTED DIAGNOSIS AND AGE GROUP, ARIZONA, 2007

Category of first-listed diagnosis	All ages	Patient's age group				
		Children <15 years	Adolescents 15-19 years	Young adults 20-44 years	Middle-aged adults 45-64 years	Elderly 65+ years
All conditions	4.4	4.7	3.2	3.5	4.8	5.1
Infectious and parasitic diseases	6.9	3.6	4.9	6.9	8.1	7.1
Septicemia	8.3	8.9	7.8	9.2	9.6	7.5
Neoplasms	5.5	11.5	6.7	4.2	5.2	6.1
Malignant neoplasms	6.2	13.8	9.1	6.2	5.9	6.2
Large intestine	8.7	0.0	3.0	8.9	8.4	8.8
Prostate	2.3	16.5	0.0	2.2	2.1	2.4
Trachea bronchus and lung	6.8	4.3	6.5	6.3	7.1	6.7
Breast	2.1	0.0	0.0	2.1	2.3	1.9
Benign neoplasms	3.2	4.1	2.7	2.7	3.0	4.6
Endocrine nutritional metabolic and immunity diseases	4.0	3.5	3.5	3.4	4.4	4.2
Diabetes mellitus	4.9	2.8	2.6	3.9	5.7	5.5
Volume depletion	2.3	0.0	2.0	2.5	1.8	2.5
Diseases of the blood and blood forming organs	4.1	4.3	4.4	4.1	3.9	4.2
Mental disorders	9.0	8.9	7.9	8.8	8.5	10.8
Psychoses	10.2	10.8	10.1	10.0	9.6	11.9
Alcoholic psychoses	4.7	0.0	0.0	3.8	5.1	6.3
Drug psychoses	4.3	20.0	3.3	4.1	4.4	4.5
Schizophrenic disorders	17.2	12.0	17.6	17.0	16.9	21.7
Manic-depressive disorders	9.6	11.0	9.3	8.4	9.3	14.1
Neurotic disorders	4.5	6.2	4.2	4.3	4.2	5.5
Anxiety states	3.4	7.6	3.9	2.9	2.9	3.8
Depression	5.2	10.0	4.8	4.7	5.0	7.4
Drug dependence	5.4	0.0	2.5	5.1	6.6	4.2
Nondependent abuse of drugs	2.7	0.0	3.3	2.6	2.7	2.3
Alcohol dependence syndrome	3.8	0.0	1.7	2.9	3.9	5.8
Diseases of the nervous system	4.4	4.4	4.1	3.8	4.5	5.0
Diseases of the circulatory system	4.1	6.8	5.1	4.1	4.0	4.1
Heart disease	4.0	6.8	3.9	3.9	3.9	4.1

TABLE 4A-5 (continued)
 AVERAGE LENGTH OF STAY FOR DISCHARGES* BY FIRST-LISTED DIAGNOSIS AND AGE GROUP, ARIZONA, 2007

Category of first-listed diagnosis	All ages	Patient's age group				
		Children <15 years	Adolescents 15-19 years	Young adults 20-44 years	Middle-aged adults 45-64 years	Elderly 65+ years
Acute myocardial infarction	4.9	0.0	2.8	3.9	4.6	5.2
Coronary atherosclerosis	3.2	0.0	0.0	2.8	3.0	3.4
Other ischemic heart disease	2.3	13.0	2.0	2.1	2.3	2.3
Cardiac dysrhythmias	3.0	3.1	2.3	2.2	2.8	3.1
Congestive heart failure	4.5	11.4	3.8	4.4	4.6	4.5
Cerebrovascular disease	4.2	8.9	10.6	5.1	4.6	3.9
Diseases of the respiratory system	5.4	3.3	4.3	5.4	6.4	5.9
Acute bronchitis and bronchiolitis	3.2	3.3	3.3	2.7	2.8	2.9
Pneumonia	4.8	3.5	4.8	5.0	5.2	5.0
Chronic bronchitis	4.3	4.6	16.0	3.7	4.2	4.3
Asthma	3.1	2.3	2.6	2.9	3.7	4.4
Diseases of the digestive system	4.4	3.7	3.1	3.6	4.6	5.1
Appendicitis	2.8	3.2	2.2	2.2	3.1	4.9
Noninfectious enteritis and colitis	4.5	3.2	4.0	4.1	4.7	5.1
Diverticula of intestine	4.9	6.0	7.0	4.5	4.9	5.1
Cholelithiasis	3.5	2.6	2.8	2.7	3.6	4.8
Diseases of the genitourinary system	3.5	3.7	2.8	2.7	3.6	4.1
Calculus of kidney and ureter	2.3	2.9	2.4	2.1	2.3	2.8
Diseases of the skin and subcutaneous tissue	4.9	3.4	3.5	4.2	5.6	5.7
Cellulitis and abscess	4.3	3.1	3.4	4.0	4.8	4.8
Diseases of the musculoskeletal system	3.6	5.1	4.5	3.6	3.5	3.7
Osteoarthritis and allied disorders	3.3	0.0	2.5	3.0	3.1	3.4
Invertebral disc disorders	2.8	19.1	2.4	2.2	2.6	3.7
Congenital anomalies	6.6	8.3	3.7	3.9	3.5	4.1
Conditions originating in perinatal period	10.2	10.2	0.0	3.3	0.0	0.0
Symptoms signs and ill-defined conditions	2.5	3.0	2.7	2.3	2.3	2.6
Injury and poisoning	4.9	3.8	3.7	4.3	5.3	5.3
Fractures, all sites	4.7	2.4	3.9	4.3	4.9	5.2
Fracture of neck of femur	5.8	2.7	3.7	4.9	5.7	5.9
Poisonings	2.8	1.6	2.2	2.7	3.3	3.5

*Excluding newborn infants.



4B.

INPATIENT DISCHARGES FROM SHORT-STAY HOSPITALS BY ALL-LISTED PROCEDURES AND PATIENT CHARACTERISTICS

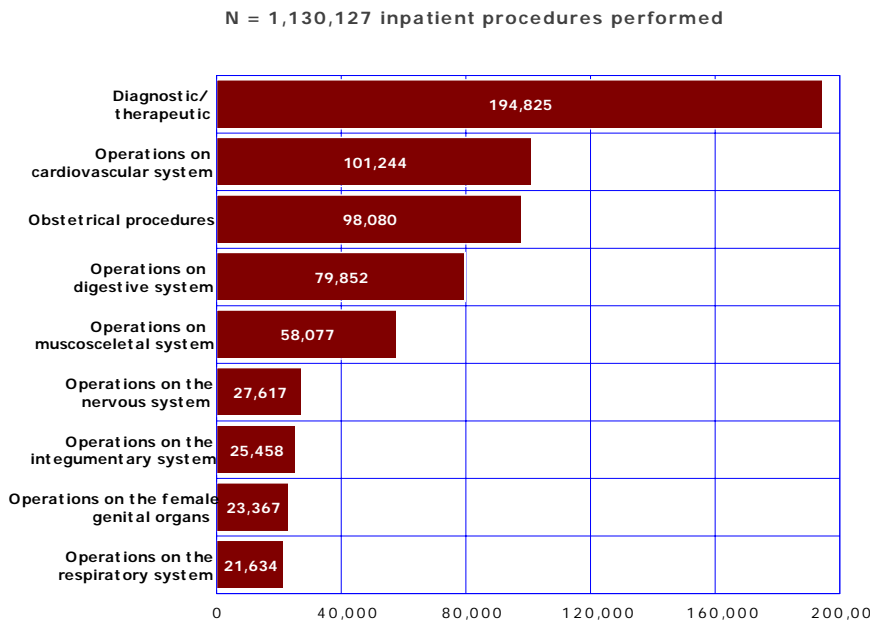
The data on the number of procedures in this section are for inpatients only. Procedures include surgical and non-surgical operations, diagnostic procedures, and special treatments reported on the medical record. Up to six procedures were included for each discharge. These all-listed procedures include all occurrences of the procedure regardless of the order on the medical record. Procedure groupings and code numbers are based on the International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM).

For comparability with the national data*, the rates of all-listed procedures are presented per 10,000 population. The groupings of ICD-9-CM codes used to identify specific procedure categories can be accessed at <http://www.azdhs.gov/plan/hip/cat/icd9procedure.xls>

*Findings of the National Hospital Discharge Survey, including estimates of the number of specific procedure categories, are available in bound reports of the National Center for Health Statistics and online at <http://www.cdc.gov/nchs/about/major/hdasd/listpubs.htm>

4B. INPATIENT DISCHARGES FROM SHORT-STAY HOSPITALS BY ALL-LISTED PROCEDURES AND PATIENT CHARACTERISTICS

Figure 4B-1
Ten Leading Categories of All-listed Inpatient Procedures,
Arizona Residents, 2007

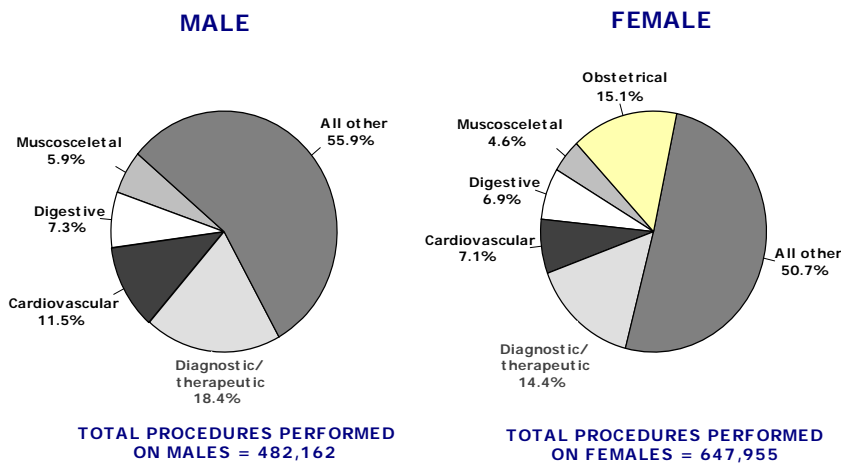


During 2007, 1,130,127 procedures were performed on hospital inpatients in Arizona. The rate of procedures was 1757 per 10,000 population. Nationally, according to the 2006 *National Hospital Discharge Survey* (the latest available), the rate of procedures was 1541.3 per 10,000 population.

For Arizona males, this rate was 1495.9/10,000, and for Arizona females it was 2019.3/10,000.

No specific procedure was recorded for approximately 37.0 percent of all inpatient discharges. Among the inpatient discharges which had one or more specific procedures recorded, the most frequent were diagnostic and therapeutic procedures (such as arteriography and angiocardiology or respiratory therapy), followed by operations on the cardiovascular system, obstetrical procedures, and operations on digestive system (**Figure 4B-1, Table 4B1**).

Figure 4B-2
Number of All-listed Inpatient Procedures by Category and Gender,
Arizona Residents, 2007



Among females, 15.1 percent of all procedures performed were obstetrical (**Figure 4B-2**). Repair of current obstetric laceration (31,160 procedures) and cesarean section (27,936 procedures), were the most frequent obstetrical procedures performed.

Eleven percent of all procedures performed on males were cardiovascular. Males had more cardiovascular procedures than females (55,408 vs. 45,835), and females had more operations on the digestive system than males (44,887 vs. 34,965).

Miscellaneous diagnostics and therapeutic procedures (such as arteriography and angiocardiology or respiratory therapy) were performed more frequently on hospitalized males than females (**Table 4B-2**).

TABLE 4B-1
NUMBER OF PROCEDURES BY CATEGORY AND AGE GROUP, ARIZONA, 2007

Procedures by category	Total	Age group					Unknown
		Children <15 years	Adolescents 15-19 years	Young adults 20-44 years	Middle-aged adults 45-64 years	Elderly 65+ years	
All procedures	1,130,127	85,478	39,912	316,556	300,397	387,764	20
Operations on the nervous system	27,617	4,232	1,959	10,222	5,578	5,626	0
Spinal tap	8,645	3,258	267	1,972	1,785	1,363	0
Operations on the endocrine system	2,472	35	36	602	1,090	709	0
Operations on the eye	957	111	92	364	206	184	0
Operations on the ear	591	239	41	136	93	82	0
Operations on the nose, mouth, and pharynx	3,992	793	261	1,119	964	855	0
Operations on the respiratory system	21,634	1,156	492	3,076	6,743	10,166	1
Bronchoscopy with or without biopsy	1,560	20	12	224	524	780	0
Operations on the cardiovascular system	101,244	4,200	817	11,485	34,598	50,140	4
Removal of coronary artery obstruction	15,775	1	1	623	6,435	8,715	0
Coronary artery bypass graft	5,481	0	2	135	2,040	3,304	0
Cardiac catheterization	31,282	190	35	2,006	12,961	16,090	0
Insertion, replacement, removal, of pacemaker leads	5,499	47	12	189	922	4,329	0
Hemodialysis	14,422	50	82	2,230	5,444	6,616	0
Operations on the hemic and lymphatic system	7,552	353	136	1,016	2,958	3,089	0
Operations on the digestive system	79,852	3,934	2,277	21,272	25,596	26,771	2
Gastric bypass	3	0	0	1	2	0	0
Endoscopy of small intestine with or without biopsy	19,111	408	244	3,565	6,247	8,647	0
Endoscopy of large intestine with or without biopsy	10,012	134	121	1,722	3,086	4,949	0
Partial excision of large intestine	4,818	53	21	545	1,747	2,452	0
Appendectomy, excluding incidental	8,506	1,791	966	3,603	1,558	588	0
Cholecystectomy	12,300	101	506	4,854	3,704	3,135	0
Lysis of peritoneal adhesions	8,038	115	80	2,895	2,694	2,254	0
Operations on the urinary system	16,015	423	197	3,350	5,467	6,577	1
Cystoscopy with or without biopsy	4,073	204	42	792	1,332	1,703	0
Operations on the male genital organs	15,769	11,097	23	229	1,760	2,660	0
Prostatectomy	3,881	0	0	24	1,518	2,339	0

TABLE 4B-1 (continued)
 NUMBER OF PROCEDURES BY CATEGORY AND AGE GROUP, ARIZONA, 2007

Procedures by category	Total	Age group					
		Children <15 years	Adolescents 15-19 years	Young adults 20-44 years	Middle-aged adults 45-64 years	Elderly 65+ years	Unknown
Operations on the female genital organs	23,367	158	385	14,624	6,008	2,192	0
Oophorectomy and salpingo-oophorectomy	7,355	25	37	2,754	3,632	907	0
Bilateral destruction/occlusion of fallopian tubes	5,755	0	3	5,728	24	0	0
Hysterectomy	9,968	0	10	4,753	4,337	868	0
Obstetrical procedures	98,080	171	12,336	85,456	117	0	0
Episiotomy with or w/o forceps or vacuum extraction	11,289	37	2,212	9,033	7	0	0
Artificial rupture of membranes	26,346	41	3,496	22,794	15	0	0
Cesarean section	27,936	30	2,397	25,446	63	0	0
Repair of current obstetric laceration	31,160	75	4,705	26,353	27	0	0
Operations on the musculoskeletal system	58,077	2,005	1,427	9,886	18,874	25,885	0
Partial excision of bone	4,305	138	140	1,088	1,709	1,230	0
Reduction of fracture	11,949	1,045	585	2,839	2,876	4,604	0
Open reduction of fracture with internal fixation	8,714	354	439	2,355	2,348	3,218	0
Excision or destruction of intervertebral disc	5,321	10	39	1,614	2,449	1,209	0
Total hip replacement	4,925	2	10	234	1,787	2,892	0
Total knee replacement	11,323	3	2	193	4,217	6,908	0
Operations on the integumentary system	25,458	1,752	994	7,575	8,423	6,714	0
Debridement of wound, infection, or burn	6,688	304	245	1,964	2,369	1,806	0
Miscellaneous diagnostic and therapeutic procedures	194,825	37,053	3,650	31,338	49,364	73,416	4
Computerized axial tomography	5,705	206	90	984	1,682	2,743	0
Arterio- & angiocardiology using contrast material	44,396	196	152	3,490	16,975	23,583	0
Diagnostic ultrasound	9,395	389	162	1,527	2,866	4,451	0
Respiratory therapy	23,784	4,282	489	3,421	6,744	8,846	2
Insertion of endotracheal tube	15,135	2,925	285	2,305	4,268	5,350	2
Injection/infusion of cancer chemotherapy substance	3,515	638	208	578	1,216	875	0

TABLE 4B-2
NUMBER OF PROCEDURES BY CATEGORY AND GENDER, ARIZONA, 2007

Procedures by category	Total	Patient's gender		
		Female	Male	Unknown
All procedures	1,130,127	647,955	482,162	10
Operations on the nervous system	27,617	16,928	10,687	2
Spinal tap	8,645	4,349	4,294	2
Operations on the endocrine system	2,472	1,736	736	0
Operations on the eye	957	306	651	0
Operations on the ear	591	205	386	0
Operations on the nose, mouth, and pharynx	3,992	1,520	2,472	0
Operations on the respiratory system	21,634	9,822	11,812	0
Bronchoscopy with or without biopsy	1,560	697	863	0
Operations on the cardiovascular system	101,244	45,835	55,408	1
Removal of coronary artery obstruction	15,775	5,538	10,237	0
Coronary artery bypass graft	5,481	1,515	3,966	0
Cardiac catheterization	31,282	12,515	18,767	0
Insertion, replacement, removal, of pacemaker leads	5,499	2,476	3,023	0
Hemodialysis	14,422	6,946	7,476	0
Operations on the hemic and lymphatic system	7,552	3,780	3,772	0
Operations on the digestive system	79,852	44,887	34,965	0
Gastric bypass	3	3	0	0
Endoscopy of small intestine with or without biopsy	19,111	10,162	8,949	0
Endoscopy of large intestine with or without biopsy	10,012	5,858	4,154	0
Partial excision of large intestine	4,818	2,507	2,311	0
Appendectomy, excluding incidental	8,506	3,951	4,555	0
Cholecystectomy	12,300	8,344	3,956	0
Lysis of peritoneal adhesions	8,038	6,026	2,012	0
Operations on the urinary system	16,015	8,807	7,208	0
Cystoscopy with or without biopsy	4,073	2,303	1,770	0
Operations on the male genital organs	15,769	0	15,769	0
Prostatectomy	3,881	0	3,881	0

TABLE 4B-2 (continued)
 NUMBER OF PROCEDURES BY CATEGORY AND GENDER, ARIZONA, 2007

Procedures by category	Total	Patient's gender		
		Female	Male	Unknown
Operations on the female genital organs	23,367	23,367	0	0
Oophorectomy and salpingo-oophorectomy	7,355	7,355	0	0
Bilateral destruction/occlusion of fallopian tubes	5,755	5,755	0	0
Hysterectomy	9,968	9,968	0	0
Obstetrical procedures	98,080	98,080	0	0
Episiotomy with or w/o forceps or vacuum extraction	11,289	11,289	0	0
Artificial rupture of membranes	26,346	26,346	0	0
Cesarean section	27,936	27,936	0	0
Repair of current obstetric laceration	31,160	31,160	0	0
Operations on the musculoskeletal system	58,077	29,544	28,533	0
Partial excision of bone	4,305	1,840	2,465	0
Reduction of fracture	11,949	6,067	5,882	0
Open reduction of fracture with internal fixation	8,714	4,416	4,298	0
Excision or destruction of intervertebral disc	5,321	2,586	2,735	0
Total hip replacement	4,925	2,794	2,131	0
Total knee replacement	11,323	6,727	4,596	0
Operations on the integumentary system	25,458	12,190	13,268	0
Debridement of wound, infection, or burn	6,688	2,680	4,008	0
Miscellaneous diagnostic and therapeutic procedures	194,825	101,213	93,608	4
Computerized axial tomography	5,705	3,254	2,451	0
Arterio- & angiocardiology using contrast material	44,396	19,239	25,157	0
Diagnostic ultrasound	9,395	4,575	4,820	0
Respiratory therapy	23,784	10,567	13,215	2
Insertion of endotracheal tube	15,135	6,668	8,465	2
Injection/infusion of cancer chemotherapy substance	3,515	1,655	1,860	0

TABLE 4B-3
NUMBER OF PROCEDURES BY CATEGORY AND RACE/ETHNICITY, ARIZONA, 2007

Procedures by category	Total	Race/ethnicity						Other	Refused
		American Indian or Alaska Native	Asian or Pacific Islander	Black or African American	Hispanic or Latino	White non-Hispanic			
All procedures	1,130,127	37,494	19,027	40,848	232,051	773,763	15,044	11,900	
Operations on the nervous system	27,617	1,034	549	1,040	7,728	16,518	206	542	
Spinal tap	8,645	339	179	457	2,581	4,857	97	135	
Operations on the endocrine system	2,472	42	53	110	341	1,872	33	21	
Operations on the eye	957	77	6	52	194	594	11	23	
Operations on the ear	591	57	7	21	146	349	3	8	
Operations on the nose, mouth, and pharynx	3,992	199	62	187	840	2,613	59	32	
Operations on the respiratory system	21,634	731	350	845	3,037	16,112	303	256	
Bronchoscopy with or without biopsy	1,560	40	28	70	224	1,147	33	18	
Operations on the cardiovascular system	101,244	3,438	1,163	4,059	13,727	76,440	1,362	1,055	
Removal of coronary artery obstruction	15,775	206	163	404	1,733	12,871	240	158	
Coronary artery bypass graft	5,481	86	66	86	575	4,514	98	56	
Cardiac catheterization	31,282	578	356	1,077	3,992	24,512	463	304	
Insertion, replacement, removal, of pacemaker leads	5,499	79	45	115	427	4,725	64	44	
Hemodialysis	14,422	1,748	202	1,164	4,130	6,817	258	103	
Operations on the hemic and lymphatic system	7,552	132	131	278	959	5,889	88	75	
Operations on the digestive system	79,852	2,728	1,129	2,851	16,232	55,377	941	594	
Gastric bypass	3	0	1	1	0	1	0	0	
Endoscopy of small intestine with or without biopsy	19,111	814	227	829	3,135	13,749	216	141	
Endoscopy of large intestine with or without biopsy	10,012	325	123	436	1,424	7,540	97	67	
Partial excision of large intestine	4,818	65	39	124	545	3,950	64	31	
Appendectomy, excluding incidental	8,506	221	172	186	2,745	5,004	98	80	
Cholecystectomy	12,300	487	164	319	3,500	7,633	129	68	
Lysis of peritoneal adhesions	8,038	168	125	353	1,636	5,594	112	50	
Operations on the urinary system	16,015	362	227	414	2,446	12,303	176	87	
Cystoscopy with or without biopsy	4,073	54	61	95	638	3,170	43	12	
Operations on the male genital organs	15,769	160	524	510	1,947	12,289	236	103	
Prostatectomy	3,881	19	55	87	335	3,319	41	25	

TABLE 4B-3 (continued)
 NUMBER OF PROCEDURES BY CATEGORY AND RACE/ETHNICITY, ARIZONA, 2007

Procedures by category	Total	Race/ethnicity							Other	Refused
		American Indian or Alaska Native	Asian or Pacific Islander	Black or African American	Hispanic or Latino	White non-Hispanic				
Operations on the female genital organs	23,367	560	462	1,061	6,603	14,210	284	187		
Oophorectomy and salpingo-oophorectomy	7,355	111	130	289	1,265	5,427	93	40		
Bilateral destruction/occlusion of fallopian tubes	5,755	220	134	225	2,630	2,415	70	61		
Hysterectomy	9,968	144	171	458	2,039	6,987	110	59		
Obstetrical procedures	98,080	3,221	2,599	3,648	42,068	43,612	1,697	1,235		
Episiotomy with or w/o forceps or vacuum extraction	11,289	214	409	251	3,829	6,233	264	89		
Artificial rupture of membranes	26,346	957	688	982	10,209	12,814	456	240		
Cesarean section	27,936	905	823	1,192	11,184	12,960	534	338		
Repair of current obstetric laceration	31,160	914	942	835	13,407	14,185	563	314		
Operations on the musculoskeletal system	58,077	1,890	646	1,593	7,403	45,543	551	451		
Partial excision of bone	4,305	205	45	159	653	3,139	48	56		
Reduction of fracture	11,949	558	120	302	2,010	8,726	120	113		
Open reduction of fracture with internal fixation	8,714	417	87	228	1,407	6,410	90	75		
Excision or destruction of intervertebral disc	5,321	69	73	122	535	4,434	33	55		
Total hip replacement	4,925	55	42	94	208	4,454	51	21		
Total knee replacement	11,323	122	118	206	1,027	9,712	112	26		
Operations on the integumentary system	25,458	1,454	291	1,187	5,094	16,854	325	253		
Debridement of wound, infection, or burn	6,688	514	61	311	1,419	4,231	88	64		
Miscellaneous diagnostic and therapeutic procedures	194,825	6,882	3,599	7,238	39,430	133,002	2,622	2,052		
Computerized axial tomography	5,705	109	151	181	940	4,220	23	81		
Arterio- & angiocardiology using contrast material	44,396	927	526	1,523	5,633	34,589	580	618		
Diagnostic ultrasound	9,395	268	161	272	1,559	6,952	94	89		
Respiratory therapy	23,784	1,260	391	1,065	4,171	16,019	412	466		
Insertion of endotracheal tube	15,135	710	230	736	2,785	10,213	213	248		
Injection/infusion of cancer chemotherapy substance	3,515	92	64	112	605	2,453	39	150		

TABLE 4B-4
 NUMBER OF PROCEDURES BY CATEGORY AND EXPECTED SOURCE OF PAYMENT, ARIZONA, 2007

Procedures by category	Total	Self	Private insurance (indemnity, HMO, PPO)	AHCCCS/Medicaid	Medicare	Other
All procedures	1,130,127	31,541	356,027	267,689	395,940	78,930
Operations on the nervous system	27,617	779	8,347	9,935	6,026	2,530
Spinal tap	8,645	322	2,646	3,472	1,729	476
Operations on the endocrine system	2,472	29	1,217	306	779	141
Operations on the eye	957	111	243	284	198	121
Operations on the ear	591	30	148	235	91	87
Operations on the nose, mouth, and pharynx	3,992	256	1,304	1,089	915	428
Operations on the respiratory system	21,634	582	5,066	3,971	10,584	1,431
Bronchoscopy with or without biopsy	1,560	25	365	261	809	100
Operations on the cardiovascular system	101,244	2,369	25,115	15,918	51,629	6,213
Removal of coronary artery obstruction	15,775	426	4,747	1,434	8,322	846
Coronary artery bypass graft	5,481	94	1,569	444	2,977	397
Cardiac catheterization	31,282	934	9,243	3,623	15,598	1,884
Insertion, replacement, removal, of pacemaker leads	5,499	63	800	299	4,030	307
Hemodialysis	14,422	141	1,625	2,244	9,763	649
Operations on the hemic and lymphatic system	7,552	128	2,901	1,028	2,998	497
Operations on the digestive system	79,852	3,336	26,960	16,304	28,300	4,952
Gastric bypass	3	0	3	0	0	0
Endoscopy of small intestine with or without biopsy	19,111	627	4,543	3,624	9,170	1,147
Endoscopy of large intestine with or without biopsy	10,012	260	2,582	1,536	5,094	540
Partial excision of large intestine	4,818	75	1,625	512	2,303	303
Appendectomy, excluding incidental	8,506	725	4,208	2,399	633	541
Cholecystectomy	12,300	641	4,503	3,190	3,233	733
Lysis of peritoneal adhesions	8,038	179	3,382	1,602	2,392	483
Operations on the urinary system	16,015	405	5,636	2,269	6,811	894
Cystoscopy with or without biopsy	4,073	81	1,497	569	1,707	219
Operations on the male genital organs	15,769	338	10,308	1,741	2,430	952
Prostatectomy	3,881	30	1,478	96	2,090	187

TABLE 4B-4 (continued)
NUMBER OF PROCEDURES BY CATEGORY AND EXPECTED SOURCE OF PAYMENT, ARIZONA, 2007

Procedures by category	Total	Self	Private insurance (indemnity, HMO, PPO)	AHCCCS/Medicaid	Medicare	Other
Operations on the female genital organs	23,367	591	12,141	7,011	2,337	1,287
Oophorectomy and salpingo-oophorectomy	7,355	155	4,552	1,190	1,006	452
Bilateral destruction/occlusion of fallopian tubes	5,755	130	2,156	3,237	33	199
Hysterectomy	9,968	153	6,587	1,668	965	595
Obstetrical procedures	98,080	2,940	38,053	52,811	246	4,030
Episiotomy with or w/o forceps or vacuum extraction	11,289	374	5,333	5,123	16	443
Artificial rupture of membranes	26,346	681	11,145	13,237	65	1,218
Cesarean section	27,936	675	12,004	14,049	81	1,127
Repair of current obstetric laceration	31,160	1,033	13,383	15,307	62	1,375
Operations on the musculoskeletal system	58,077	1,631	16,863	7,649	25,431	6,503
Partial excision of bone	4,305	105	1,302	807	1,538	553
Reduction of fracture	11,949	660	3,149	2,263	4,490	1,387
Open reduction of fracture with internal fixation	8,714	504	2,383	1,627	3,152	1,048
Excision or destruction of intervertebral disc	5,321	61	2,637	534	1,297	792
Total hip replacement	4,925	34	1,649	239	2,592	411
Total knee replacement	11,323	39	3,495	494	6,244	1,051
Operations on the integumentary system	25,458	1,494	6,918	6,657	8,032	2,357
Debridement of wound, infection, or burn	6,688	375	1,558	1,795	2,301	659
Miscellaneous diagnostic and therapeutic procedures	194,825	5,150	55,213	46,689	74,094	13,679
Computerized axial tomography	5,705	110	1,141	1,002	2,342	1,110
Arterio- & angiocardiology using contrast material	44,396	1,147	12,393	5,101	22,910	2,845
Diagnostic ultrasound	9,395	170	2,428	1,736	4,180	881
Respiratory therapy	23,784	808	5,078	6,425	9,752	1,721
Insertion of endotracheal tube	15,135	636	3,247	4,240	6,007	1,005
Injection/infusion of cancer chemotherapy substance	3,515	50	1,359	956	893	257



4C.

CHARACTERISTICS OF EMERGENCY ROOM VISITS BY DISEASE CATEGORY, DIAGNOSIS GROUP AND AGE GROUP

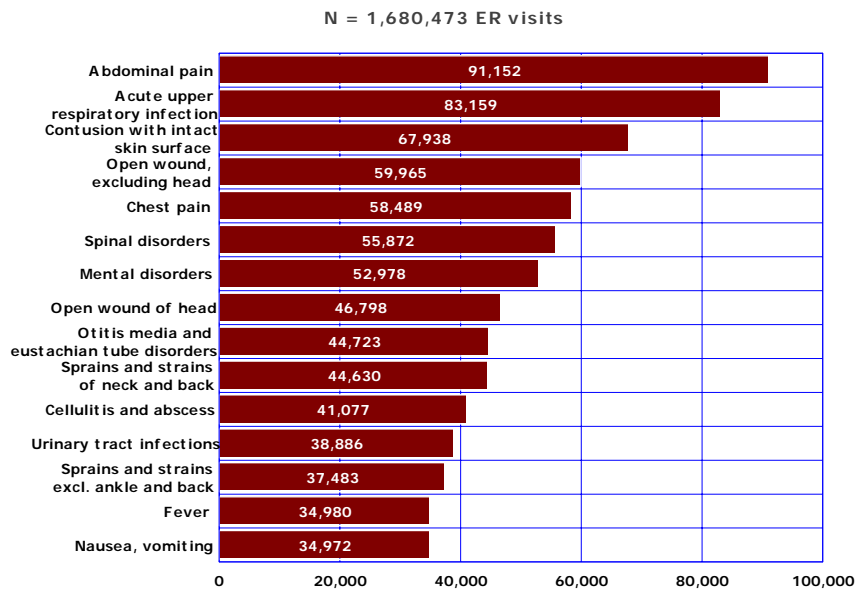
The data in this section are focused on ambulatory care visits to emergency rooms of non-Federal, short-stay hospitals. The emergency room (ER) and the inpatient hospitalization data are mutually exclusive. The ER data include only those who were not admitted as inpatients.

All emergency room visits are those of the residents of Arizona. Ambulatory care visits to hospital emergency rooms of out-of-state residents are not included in this report. Diagnostic groupings and code numbers are based on the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM).

*Findings of the National Hospital Ambulatory Medical Care Survey, including data on trends in ER utilization, are available in bound reports of the National Center for Health Statistics and online at <http://www.cdc.gov/nchs/data/ad/ad386.pdf>

4C. CHARACTERISTICS OF EMERGENCY ROOM VISITS BY DISEASE CATEGORY, DIAGNOSIS GROUP AND AGE GROUP

Figure 4C-1
Number of Emergency Room Visits by the Fifteen Leading Patient's Complaints, Arizona Residents, 2007



During 2007, close to 1.7 million visits were made by Arizona residents to hospital emergency rooms (ER), about 26 visits per 100 persons. Nationally, the ER utilization rate was 40.5 visits per 100 persons. The utilization rates vary by geographic region, with the West having the lowest ER visit rate (29.4/100 in 2006).*

In Arizona, the number of ER visits increased by 88,592 from 1,591,881 in 2006.

In 2007, *abdominal pain, acute upper respiratory infection, contusion with intact skin surface, open wound, chest pain, spinal disorders and mental disorders* were the leading diagnostic categories, accounting for more than one-fourth (27.9 percent) of all visits (**Figure 4C-1, Table 4C-2**).

Both *fever* (34,980 visits) and *nausea-vomiting* (34,972) were among the top fifteen complaints, symptoms or reasons for a visit to the emergency room.

Note: Based on first-listed diagnosis. See Table 4C-2.

[*www.cdc.gov/nchs/data/nhsr/nhsr007.pdf](http://www.cdc.gov/nchs/data/nhsr/nhsr007.pdf)

Figure 4C-2
Rates* of Emergency Room Visits by Age Group, Arizona, 2007

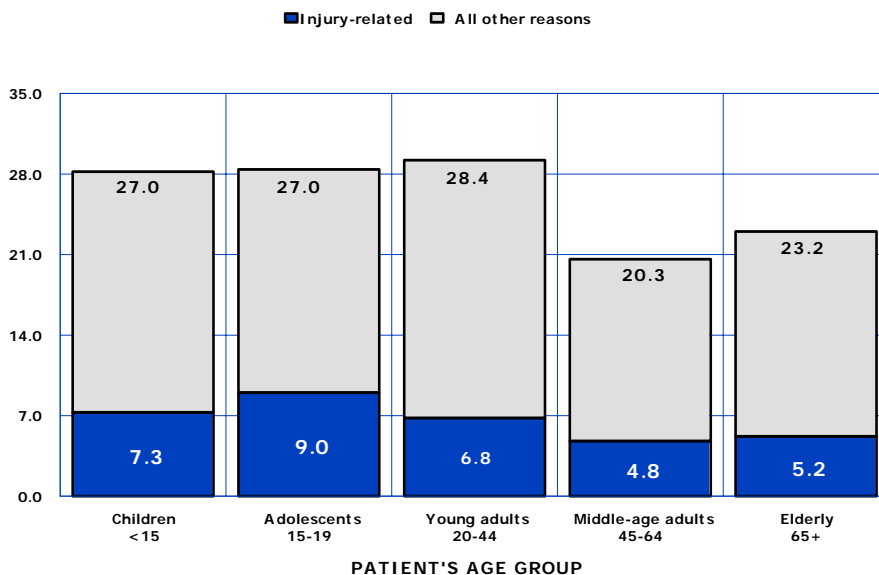


Figure 4C-2 represents the percentage of each age group that had an ER visit (i.e., 27 percent of all children <15 had an ER visit in 2007) and 7.3 percent of children <15 visited the ER for an injury-related reason.

In 2007, the ER utilization rates (the number of ER visits per 100 persons) for young adults aged 20-44 years were the highest rates among the age groups (**Figure 4C-2**).

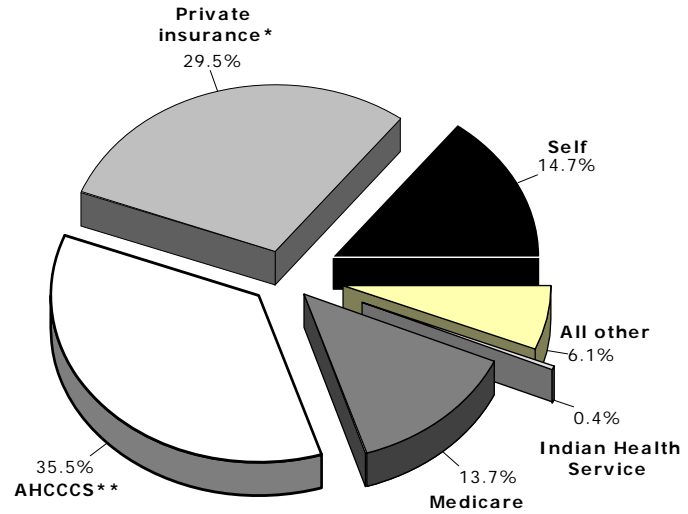
Injury-related ER visits accounted for 33 percent of all ER visits by adolescents 15-19 years old. Their annual rate of injury-related ER visits was 9 visits per 100 adolescents ages 15-19 years (**Figure 4C-2**).

*Number of visits per 100 persons.

4C. CHARACTERISTICS OF EMERGENCY ROOM VISITS BY DISEASE CATEGORY, DIAGNOSIS GROUP AND AGE GROUP

Figure 4C-3
Emergency Room Visits by Payer, Arizona Residents, 2007

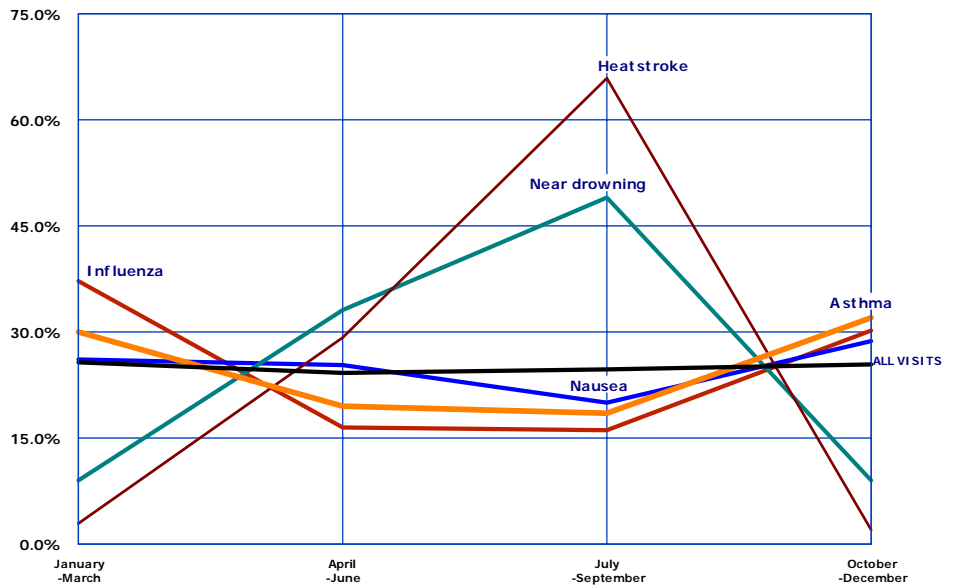
The Arizona Health Care Cost Containment System (AHCCCS, the State's Medicaid program) was the most frequently recorded expected source of payment, accounting for 35.5 percent of ER visits (**Figure 4C-3**). Private insurance was the second most frequent payer (29.5 percent of ER visits), followed by Medicare (13.7 percent).



*Indemnity, HMO, PPO.
**The Arizona Health Care Cost Containment System (AHCCCS) is the State's Medicaid Program.

Figure 4C-4
Seasonal Variation in Selected Reasons for Emergency Room Visits, Arizona Residents, 2007

Unlike hospital births (**Figure 1B-14**) and hospital inpatient admissions excluding newborn infants (**Figure 4A-4**), the temporal pattern of emergency room visits showed little variation by day of the week, month of the year or calendar quarter. However, seasonal variation was evident in the quarterly volume of visits due to certain patient complaints such as *heatstroke* (65.9 percent of all visits were made in the 3rd quarter), *near drowning* (2nd and 3rd quarter accounted for 82.1 percent of annual visits), *asthma* (visits were lowest in the 3rd quarter), *nausea* (the volume of visits was highest in the second and fourth quarter), and *influenza* (visits were highest in the first quarter; **Figure 4C-4**).



Note: Percent distribution of visits to the emergency room during 2007 by calendar quarter.

TABLE 4C-1
 NUMBER OF EMERGENCY ROOM VISITS BY FIRST-LISTED DIAGNOSIS AND AGE GROUP, ARIZONA, 2007

Category of first-listed diagnosis	All Ages	Age group					
		<15	15-19	20-44	45-64	65+	Unknown
Total	1,680,473	397,136	126,431	658,922	305,101	192,850	33
Infectious and parasitic diseases	42,095	22,981	3,079	10,794	3,294	1,947	0
Neoplasms	2,185	150	43	552	733	707	0
Endocrine nutritional metabolic and immunity diseases	26,194	3,285	1,221	8,626	7,143	5,919	0
Diabetes	9,146	281	279	2,954	3,334	2,298	0
Mental disorders	52,978	1,952	5,126	28,262	14,284	3,350	4
Psychoses	10,514	259	651	5,567	2,987	1,049	1
Alcoholic psychoses	1,330	0	3	771	522	34	0
Drug psychoses	1,721	12	93	954	561	101	0
Schizophrenic disorders	1,617	11	44	1,090	448	24	0
Manic-depressive disorders	3,066	169	348	1,632	815	102	0
Neurotic disorders	42,445	1,693	4,472	22,683	11,295	2,299	3
Anxiety states	10,244	228	742	5,836	2,385	1,053	0
Depression	7,428	276	886	3,939	1,930	397	0
Drug dependence	735	1	81	486	157	10	0
Nondependent abuse of drugs	3,762	95	616	2,464	570	16	1
Alcohol dependence syndrome	3,145	6	73	1,388	1,554	124	0
Diseases of the nervous system	104,227	43,126	4,648	34,789	15,900	5,764	0
Diseases of the circulatory system	35,760	457	454	6,860	11,446	16,540	3
Diseases of the respiratory system	179,125	83,009	11,492	50,904	21,225	12,494	1
Acute bronchitis and bronchiolitis	20,350	8,069	899	6,537	3,160	1,685	0
Pneumonia	18,437	9,314	552	3,613	2,669	2,288	1
Chronic bronchitis	3,788	7	6	222	1,618	1,935	0
Asthma	23,579	10,534	1,706	7,209	3,113	1,017	0
Diseases of the digestive system	95,427	18,898	5,547	42,552	17,750	10,680	0
Diseases of the genitourinary system	100,480	9,531	10,160	51,523	17,568	11,697	1
Diseases of the skin and subcutaneous tissue	69,791	15,234	5,563	30,313	13,119	5,562	0
Diseases of the musculoskeletal system	108,339	6,262	4,724	48,907	31,379	17,067	0
Symptoms signs and ill-defined conditions	352,145	74,939	21,260	133,724	71,072	51,148	2
Injury and poisoning	410,458	102,553	39,943	153,631	70,580	43,732	19
Fractures, all sites	54,154	14,627	4,887	16,027	10,429	8,181	3
Sprains	90,845	9,617	9,322	46,734	19,262	5,910	0
Intracranial	13,947	1,823	1,476	6,611	3,130	905	2
Open wounds	100,660	29,877	8,673	37,181	15,333	9,594	2
Superficial	25,553	6,333	2,020	10,348	4,999	1,851	2
Contusions	67,938	14,536	6,616	25,751	12,596	8,439	0
Foreign bodies	15,200	3,974	578	6,521	3,275	852	0
Burns	9,085	867	484	5,010	2,459	265	0
Trauma complications and unspecified injuries	33,941	11,009	2,892	11,535	5,452	3,052	1
Poisonings	15,930	3,726	2,048	6,434	2,871	848	3
Surgical and medical complications	15,694	824	571	6,332	4,640	3,327	0

**TABLE 4C-2
NUMBER OF EMERGENCY ROOM VISITS FOR THE LEADING DIAGNOSIS GROUPS* AND AGE GROUP, ARIZONA, 2007**

Primary diagnosis group	ICD-9-CM code(s)	All Ages	Age group					Unknown
			<15	15-19	20-44	45-64	65+	
Total, all visits		1,680,473	397,136	126,431	658,922	305,101	192,850	33
Abdominal pain	789.0	91,152	10,917	7,925	46,674	18,032	7,604	0
Acute upper respiratory infection, excluding pharyngitis	460-461, 463-466	83,159	46,290	3,932	21,596	8,210	3,131	0
Contusion with intact skin surface	920-924	67,938	14,536	6,616	25,751	12,596	8,439	0
Open wound, excluding head	874-897	59,965	10,466	5,637	27,050	11,375	5,437	0
Chest pain	786.5	58,489	1,794	2,868	27,901	17,683	8,243	0
Spinal disorders	720-724	55,872	1,300	2,060	29,237	16,576	6,699	0
Mental disorders	290-319	52,978	1,952	5,126	28,262	14,284	3,350	4
Open wound of head	870-873	46,798	19,446	3,236	13,866	5,939	4,309	2
Otitis media and eustachian tube disorders	381-382	44,723	31,832	1,246	8,078	3,091	476	0
Sprains and strains of neck and back	846, 847	44,630	1,848	3,401	25,877	10,889	2,615	0
Cellulitis and abscess	681-682	41,077	5,820	3,049	20,006	8,728	3,474	0
Urinary tract infection, site not specified	599.0	38,886	5,488	3,403	16,568	7,208	6,219	0
Sprains and strains, excluding ankle and back	840-844, 845.1, 848	37,483	5,193	3,629	17,644	8,277	2,740	0
Fever	780.6	34,980	24,820	807	5,644	2,852	857	0
Nausea, vomiting	787.0	34,972	12,461	1,867	12,185	5,540	2,918	1
Headache	784.0	31,829	2,314	2,283	17,778	7,081	2,373	0
Acute pharyngitis	462.0	31,142	9,715	3,700	13,521	3,516	690	0
Rheumatism, excluding back	725-729	29,235	2,527	1,161	11,797	8,587	5,163	0
Gastroenteritis and colitis	558.0	25,150	7,753	1,320	10,003	4,529	1,545	0
Asthma	493	23,579	10,534	1,706	7,209	3,113	1,017	0
Migraine	346	21,205	393	898	13,599	5,915	400	0
Superficial injuries	910-919	19,510	6,298	1,823	6,647	3,040	1,700	2
Pneumonia	480-486	18,437	9,314	552	3,613	2,669	2,288	1
Heart disease, excluding ischemic	391-392.0, 393-398, 402, 404, 415-416, 420-429	17,558	338	384	5,484	5,154	6,196	2
Chronic and unspecified bronchitis	490-491	17,054	2,700	762	5,723	4,388	3,481	0
Unspecified viral and chlamydial infection	79.9	11,726	7,776	634	2,343	720	253	0

*Based on first-listed diagnosis



4D.

INJURY-RELATED INPATIENT DISCHARGES AND EMERGENCY ROOM VISITS BY INTENT AND MECHANISM OF INJURY

Injury hospitalizations and injury-related emergency room visits are defined here through the range of ICD-9-CM codes 800-999 used as the first-listed diagnosis. In addition, the supplementary classification of external causes of injury and poisoning (ICD-9-CM codes E800–E999) is used to permit the classification of environmental events, circumstances and conditions as the cause of injury, poisoning and other adverse effects. The “E” code classification is used to describe both the *mechanism* or external cause of injury (e.g., motor vehicle traffic, fall, poisoning), but also the manner or *intent* of the injury (e.g., self-inflicted, assault, accident).

In 2007, approximately one in six inpatient hospitalizations for injury (and one in five emergency room visits) did not have an external cause code. On the other hand, some of the non-injury first-listed diagnoses may also have an external cause of injury code.

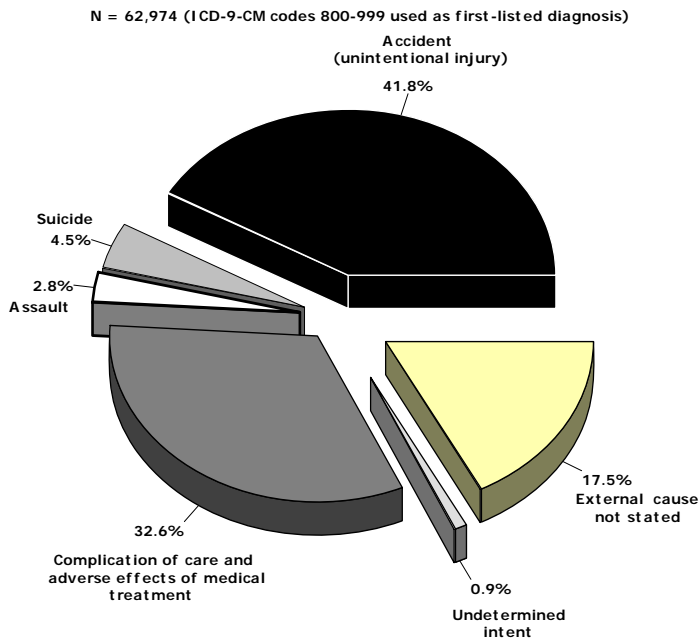
Note: comparative U.S. data can be found in the publications of the National Center for Health Statistics, such as National Trends in Injury Hospitalizations 1979 – 2001:

<http://www.cdc.gov/nchs/products/pubs/pubd/other/miscpub/miscpub.htm#Injury> or

Emergency Department Visit Injury Data: http://www.cdc.gov/nchs/about/otheract/injury/injury_emergency.htm

4D. INJURY-RELATED INPATIENT DISCHARGES AND EMERGENCY ROOM VISITS BY INTENT AND MECHANISM OF INJURY

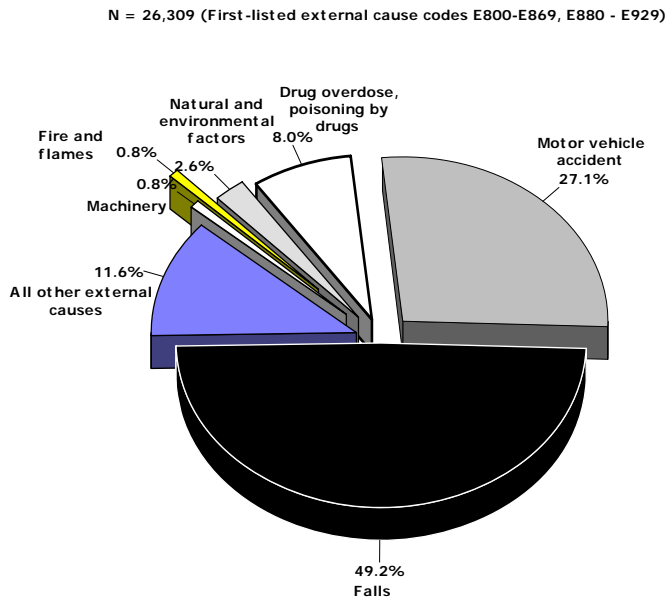
Figure 4D-1
Percent Distribution of Inpatient Discharges by Intent of Injury,
Arizona Residents, 2007



In 2007, there were 62,974 inpatient hospitalizations with injury as first-listed diagnosis. *Unintentional injuries in accidents* accounted for 41.8 percent of all inpatient discharges with injury diagnosis (**Figure 4D-1, Table 4D-1**). Approximately 20,502 inpatient hospitalizations were for *complications of medical care and adverse effects of medical treatment* (including adverse drug reactions and complications from surgical and medical procedures) and represented 32.6 percent of all injury- or poisoning-related inpatient hospitalizations. *Self-inflicted injuries in suicide* resulted in 2,806 inpatient hospitalizations (4.5 percent). *Assault* accounted for 1,766 inpatient hospitalizations (2.8 percent of all hospital discharges for injury).

The external cause was not provided for 17.5 percent of inpatient discharges for injury.

Figure 4D-2
Percent Distribution of Inpatient Discharges by Mechanism of
Unintentional Injury, Arizona Residents, 2007



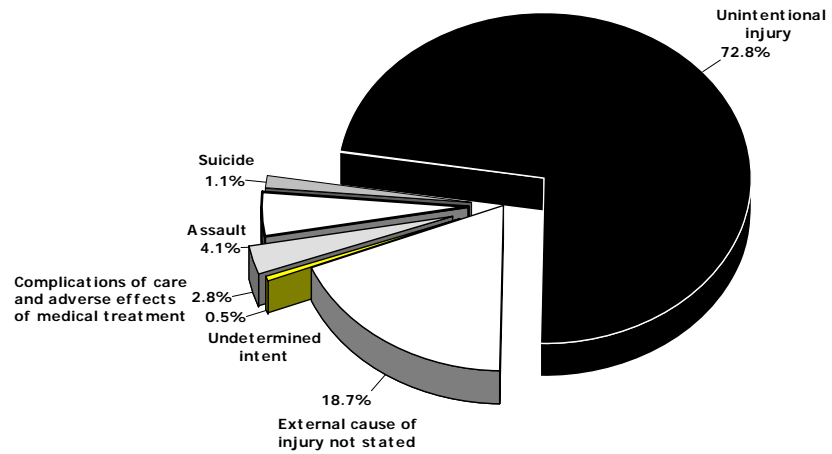
Accidental falls (49.2 percent, **Figure 4D-2, Table 4D-1**), *motor vehicle accidents* (27.1 percent), and *drug overdoses* (8.0 percent) accounted for the largest proportions of inpatient hospitalizations for unintentional injury in 2007.

Among the natural and environmental factors as external causes of inpatient hospitalization for unintentional injury, the three most frequent were *poisoning and toxic reaction caused by venomous animals* (224 inpatient discharges), *other injury causes by animals* (236 inpatient discharges), and *exposure to excessive natural heat* (153 inpatient discharges). *Exposure to excessive natural cold* accounted for 6.8 percent (46 out of 672) of inpatient hospitalizations for injuries due to natural and environmental factors.

4D. INJURY-RELATED INPATIENT DISCHARGES AND EMERGENCY ROOM VISITS BY INTENT AND MECHANISM OF INJURY

Figure 4D-3
Percent Distribution of Injury-related Emergency Room Visits by Intent of Injury, Arizona Residents, 2007

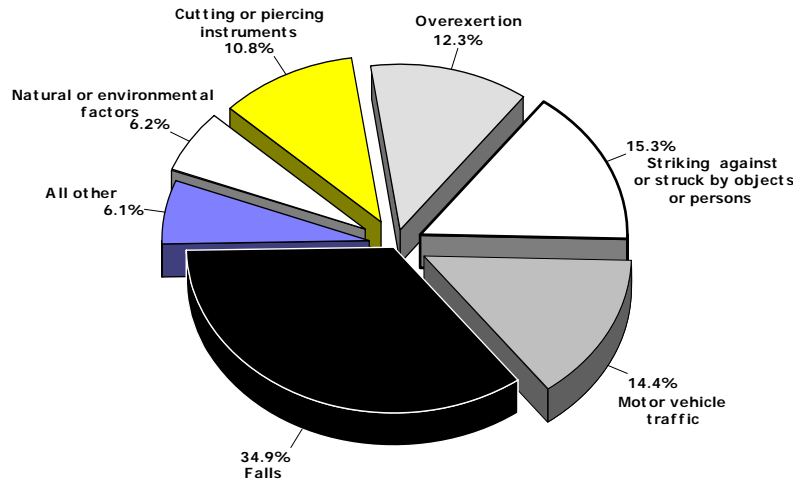
N = 410,458 (ICD-9-CM codes 800-999 used as first-listed diagnosis)



In 2007, there were 410,458 injury-related emergency room visits among Arizona residents, 6.5 times as many as inpatient hospitalizations for injury. *Unintentional injuries or accidents* accounted for three out of four (298,718 or 72.8 percent) of all injury-related emergency room visits (Figure 4D-3, Table 4D-2). The external cause of injury was classified as *assault* for 16,974 emergency room visits: these were the injuries purposely inflicted by another person. Complications of care and adverse effects of medical treatment accounted for a greater number of emergency room visits than self-inflicted injuries in suicide (2.8 percent vs. 1.1 percent, respectively, Figure 4D-3, Table 4D-2).

Figure 4D-4
Percent Distribution of Injury-related Emergency Room Visits by Mechanism of Unintentional Injury, Arizona Residents, 2007

N = 298,718 (First-listed external cause codes E800-E869, E880 - E929)

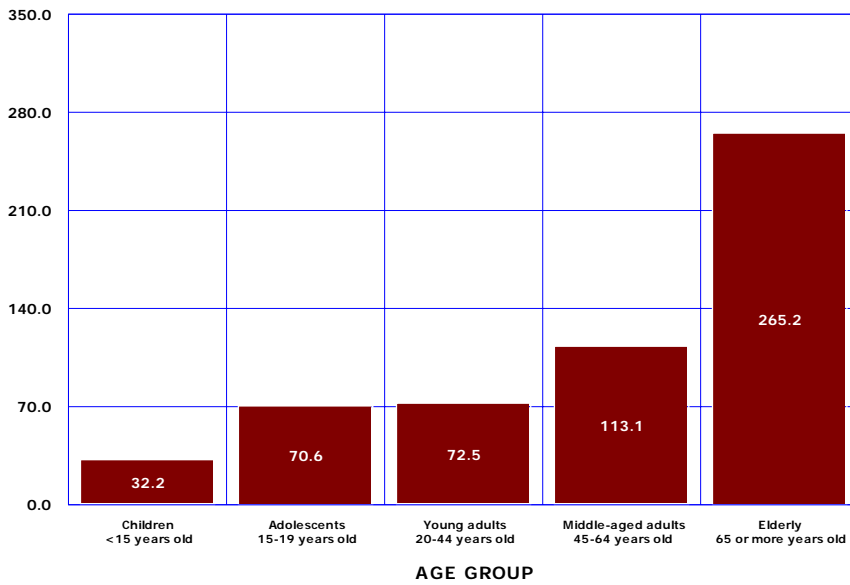


Accidental falls (104,208 ER visits, Table 4D-2), *striking against or struck by objects or persons* (45,600), and *motor vehicle traffic accidents* (43,117) were the three most frequent mechanisms of unintentional injuries treated in emergency rooms (Figure 4D-4, Table 4D-2).

Overexertion (36,793 visits) accounted for a greater number of emergency room visits than the following three categories of unintentional injury combined: *foreign body accidentally entering eye or other orifice* (9,346), *pedal cycle accident* (6,684) and *natural and environmental factors* (18,548 Table 4D-2).

4D. INJURY-RELATED INPATIENT DISCHARGES AND EMERGENCY ROOM VISITS BY INTENT AND MECHANISM OF INJURY

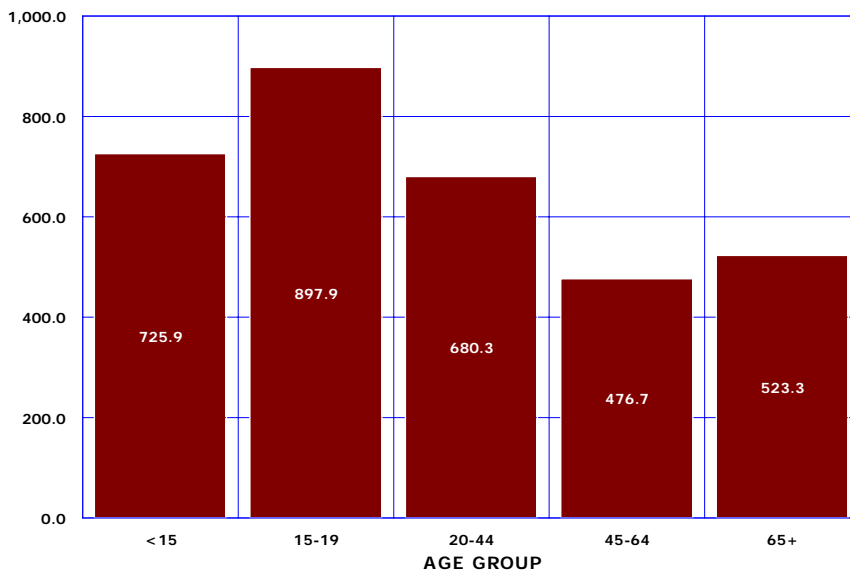
Figure 4D-5
Rates* for Injury-related Inpatient Discharges by Age Group,
Arizona Residents, 2007



The rates (i.e., the number of inpatient hospitalizations per 10,000 persons) for injury-related inpatient discharges clearly are associated with the age of the injured patient (**Figure 4D-5**). The older the injured person, the more likely it is to be admitted as inpatient. The rate of 265.2 per 10,000 elderly Arizonans 65+ was 8.2 times greater than the rate of 32.2/10,000 for children under the age of 15 years.

*Number of inpatient discharges per 10,000 resident population in specified age group.

Figure 4D-6
Rates* for Injury-related Emergency Room Visits by Age Group,
Arizona Residents, 2007



The rates for injury-related emergency room visits (i.e., the number of ER visits per 10,000 persons; **Figure 4D-6**) reveal a different age-specific pattern. The rates are the highest among the younger patients, who are more likely to be released home rather than admitted as inpatients. The rate of 897.9 ER visits per 10,000 adolescents 15-19 years old was 1.7 times greater than the rate of 523.3 /10,000 among Arizonans aged 65 years or older

*Number of emergency room visits per 10,000 resident population in specified age group.

**TABLE 4D-1
NUMBER OF INJURY-RELATED INPATIENT DISCHARGES BY INTENT AND MECHANISM FOR SELECTED EXTERNAL CAUSES
BY GENDER, AGE GROUP AND RACE/ETHNICITY, ARIZONA, 2007**

	Total	Gender		Age group						Race/ethnicity						
		Female	Male	Children < 15 years	Adolescents 15-19 years	Young adults 20-44 years	Middle-aged adults 45-64 years	Elderly 65+ years	Unknown	American Indian or Alaska Native	Asian or Pacific Islander	Black or African American	Hispanic or Latino	White non-Hispanic	Other	Refused
Hospital discharges for injury ¹	62,974	29,723	33,251	4,547	3,140	16,381	16,739	22,161	6	3,183	686	2,288	10,598	44,800	684	735
External cause of injury ² stated as:	51,971	25,605	26,366	3,107	2,373	13,000	14,201	19,285	5	2,122	557	1,919	8,517	37,827	555	474
UNINTENTIONAL INJURY OR ACCIDENT ³	26,309	13,040	13,269	2,174	1,501	6,322	5,653	10,656	3	970	265	722	4,456	19,410	248	238
Fall	12,951	8,212	4,739	705	150	1,065	2,340	8,690	1	341	110	202	1,516	10,587	111	84
Motor vehicle accident	7,122	2,481	4,641	651	967	3,179	1,580	743	2	369	77	277	1,658	4,573	74	94
Accidental poisoning by drugs, medicinal substances, gases and vapors	2,093	1,044	1,049	134	112	716	704	427	0	64	25	86	316	1,565	25	12
Natural and environmental factors	672	234	438	128	19	204	184	137	0	30	12	21	120	474	8	7
Fire and flames	212	76	136	70	11	63	46	22	0	12	7	20	90	83	0	0
Machinery	201	15	186	5	13	121	51	11	0	6	2	4	88	94	4	3
SUICIDE ⁴	2,806	1,645	1,161	46	291	1,590	765	114	0	106	40	110	415	2,079	39	17
ASSAULT ⁵	1,766	280	1,486	113	199	1,091	319	42	2	226	14	202	601	670	20	33
INJURIES OF UNDETERMINED INTENT ⁶	587	265	322	26	38	266	206	51	0	24	9	33	106	404	5	6
COMPLICATIONS OF CARE AND ADVERSE EFFECTS OF MEDICAL TREATMENT ⁷	20,502	10,375	10,127	748	344	3,731	7,258	8,421	0	796	229	852	2,939	15,263	243	180
Misadventures to patients	262	156	106	9	1	62	84	106	0	12	2	13	26	204	3	2
Surgical and medical procedures as the cause of adverse reaction	19,035	9,530	9,505	710	326	3,516	6,839	7,644	0	746	211	793	2,778	14,111	232	164
Drugs causing adverse effects	1,205	689	516	29	17	153	335	671	0	38	16	46	135	948	8	14
External cause of injury not stated ⁸	11,003	4,118	6,885	1,440	767	3,381	2,538	2,876	1	1,061	129	369	2,081	6,973	129	261

¹First-listed diagnosis uses ICD-9-CM codes 800-999.

²First-listed external cause codes E800-E999.

³First-listed external cause codes E800-E869, E880-E929.

⁴First-listed external cause codes E950-E959.

⁵First-listed external cause codes E960-E969.

⁶First-listed external cause codes E890-E989.

⁷First-listed external cause codes E870-E879, E930-E949.

⁸Injury hospitalization did not have an external cause code in the 1st E-code field.

**TABLE 4D-2
NUMBER OF INJURY-RELATED EMERGENCY ROOM VISITS* BY INTENT AND MECHANISM OF EXTERNAL CAUSES
AND AGE GROUP, ARIZONA, 2007**

	All Ages	Age group					
		< 15	15-19	20-44	45-64	65+	Unknown
ALL VISITS	1,680,473	397,136	126,431	658,922	305,101	192,850	33
EMERGENCY DEPARTMENT VISITS FOR INJURY¹	410,458	102,553	39,943	153,631	70,580	43,732	19
EXTERNAL CAUSE OF INJURY² STATED AS	333,696	86,701	32,998	118,896	56,605	38,478	18
UNINTENTIONAL INJURIES³	298,718	83,892	28,304	101,607	49,967	34,938	10
Falls	104,208	36,032	5,495	22,143	18,039	22,497	2
Motor vehicle traffic	43,117	4,009	6,358	21,766	8,444	2,536	4
Struck against or struck accidentally by objects or person	45,600	17,871	6,534	14,557	4,600	2,038	0
Overexertion	36,793	5,054	3,816	18,330	7,268	2,325	0
Cutting or piercing instruments or objects	32,283	6,018	3,117	15,151	5,843	2,154	0
Natural and environmental factors	18,548	6,098	1,371	6,267	3,401	1,409	2
Poisoning by drugs, medicinal substances, biologicals, gases, and vapors	5,566	2,039	537	1,649	974	367	0
Fire and flames	2,196	616	192	946	351	91	0
Machinery	1,722	68	105	901	476	172	0
Pedal cycle, nontraffic and other	6,684	2,978	767	1,808	937	194	0
Motor vehicle, nontraffic	1,916	335	348	921	231	81	0
Foreign body accidentally entering eye or other orifice	9,346	3,955	403	2,912	1,365	711	0
Suffocation	167	67	0	29	35	36	0
Firearm missile	838	179	208	368	62	20	1
Drowning/submersion	145	99	6	29	7	4	0
SUICIDE⁴	4,653	298	958	2,583	752	62	0
ASSAULT⁵	16,974	1,083	2,869	10,432	2,426	159	5
INJURIES OF UNDETERMINED INTENT⁶	1,946	232	350	896	373	92	3
COMPLICATIONS OF CARE AND ADVERSE EFFECTS OF MEDICAL TREATMENT⁷	11,403	1,196	517	3,377	3,086	3,227	0
EXTERNAL CAUSE OF INJURY NOT STATED⁸	76,762	15,852	6,945	34,735	13,975	5,254	1

¹First-listed diagnosis uses ICD-9-CM codes 800-999.

²First-listed external cause codes E800-E999.

³First-listed external cause codes E800-E869, E880-E929.

⁴First-listed external cause codes E950-E959.

⁵First-listed external cause codes E960-E969.

⁶First-listed external cause codes E890-E989.

⁷First-listed external cause codes E870-E879, E930-E949.

⁸Injury hospitalization did not have an external cause code.