4A.

INPATIENT DISCHARGES FROM SHORT STAY HOSPITALS BY FIRST-LISTED DIAGNOSIS AND PATIENT CHARACTERISTICS
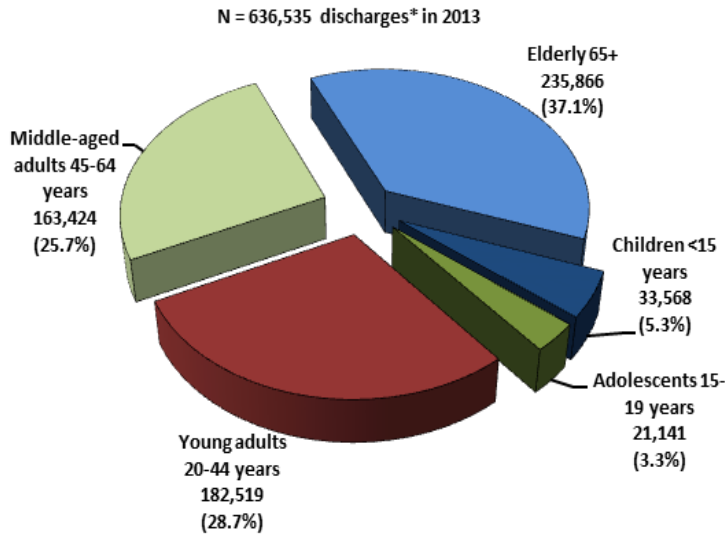
An inpatient discharge occurs when a person who was admitted to a hospital leaves that hospital. A person who has been hospitalized more than once in a given calendar year will be counted multiple times as a discharge; thus, the numbers in this report are for discharges, not persons. Federal, military, and Department of Veteran Affairs' hospitals are excluded. Beginning in 2010, the psychiatric hospitals also are required to report to the Arizona Department of Health Services. All discharges are for residents of Arizona. Discharges of out-of-state residents are not included in this report. Discharges of inpatients in this report exclude newborn infants. Diagnostic groupings and code numbers are based on the International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM).

The change in the Arizona reporting requirements increased the number of diagnoses that are coded for each discharge from nine to twenty five. In this section, discharges are presented by principal 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/nhds.htm

Figure 4A-1
Hospital Inpatient Discharges[a] by Age Group, Arizona Residents, 2013

N = 636,535 discharges* in 2013

Elderly 65+
235,866
(37.1%)

Middle-aged adults 45-64 years
163,424
(25.7%)

Children <15 years
33,568
(5.3%)

Adolescents 15-19 years
21,141
(3.3%)

Young adults 20-44 years
182,519
(28.7%)
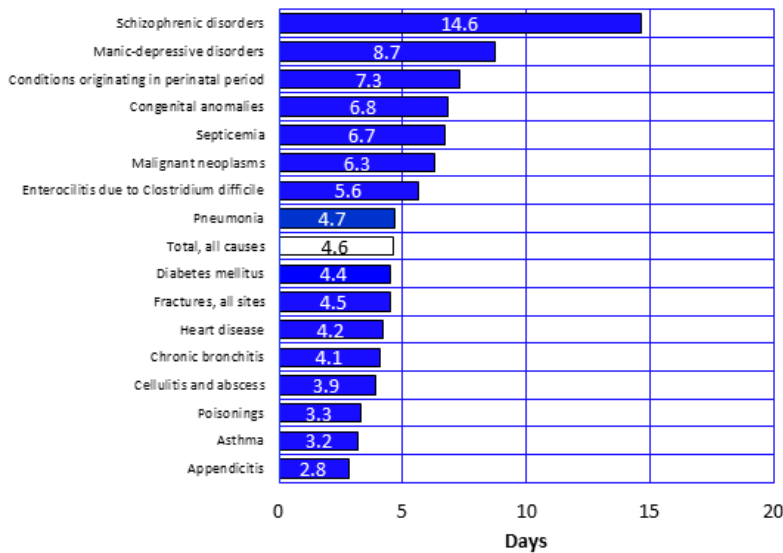
In 2013, there were 636,535 inpatients discharged, excluding newborn infants, from non-Federal short stay hospitals in Arizona (**Table 4A-1**). Patients who were elderly (65 years or older) accounted for 37.1 percent of hospital discharges (**Figure 4A-1**), followed by young adults (20-44 years old) who comprised 28.7 percent of discharges, and middle-aged adults 45-64 year olds (25.7 percent of all inpatient discharges)

Diseases of the circulatory system were the most common diagnoses (13.1 percent of all discharges), followed by diseases of the *digestive system* (10.3 percent), and *injury and poisoning* diagnoses (9.7 percent; percentages based on data in **Table 4A-1**).

Note: [a] Excluding newborn infants.

Figure 4A-2
Average Length of Hospital Stay for Discharges with Selected First-listed Diagnosis, Arizona Residents, 2013

Diagnosis	Days
Schizophrenic disorders	14.6
Manic-depressive disorders	8.7
Conditions originating in perinatal period	7.3
Congenital anomalies	6.8
Septicemia	6.7
Malignant neoplasms	6.3
Enterocolitis due to Clostridium difficile	5.6
Pneumonia	4.7
Total, all causes	4.6
Diabetes mellitus	4.4
Fractures, all sites	4.5
Heart disease	4.2
Chronic bronchitis	4.1
Cellulitis and abscess	3.9
Poisonings	3.3
Asthma	3.2
Appendicitis	2.8

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 2010. In 1970, the average length of stay was 7.8 days, with one-third of patients hospitalized for 8 days or more. In 2010, the average length of stay nationally was 4.8 days.
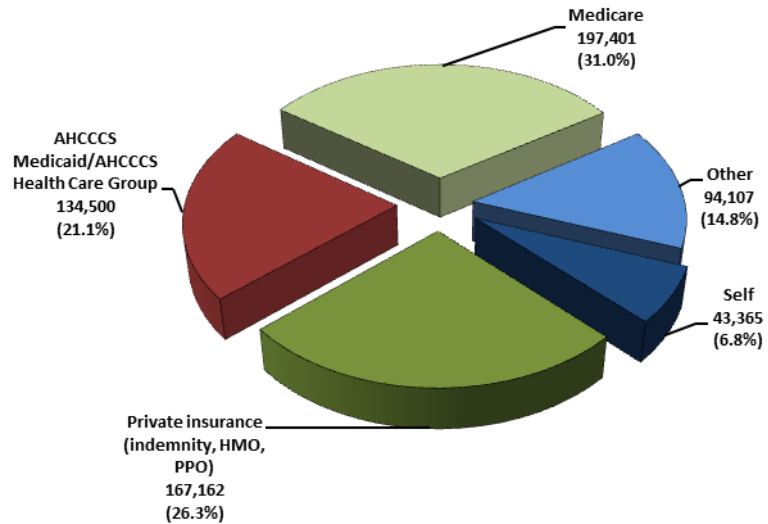
In 2013, the average length of hospital stay for Arizona inpatients was 4.6 days (**Figure 4A-2**, **Table 4A-5**). The percent of patients hospitalized for 3 days or less was 59.8 percent, with 14.1 percent of inpatients staying 8 days or more.

The average length of stay was 4.2 days for heart disease, 4.4 days for diabetes, 6.3 days for cancer, and 14.6 days for schizophrenic disorders.

Figure 4A-3
Hospital Inpatient Discharges by Payer, Arizona Residents, 2013

Medicare paid for 31.0 percent of all discharges (**Figure 4A-3**) and 68.1 percent of inpatient discharges of persons aged 65 years or older (**Table 4A-4**). Private insurance was the second most frequently recorded expected source of payment, accounting for 26.3 percent of inpatient discharges. The Arizona Health Care Cost Containment System (AHCCCS; the State's Medicaid Program) accounted for 21.1 percent of hospital inpatient discharges.

Medicare
197,401
(31.0%)

AHCCCS
Medicaid/AHCCCS
Health Care Group
134,500
(21.1%)

Other
94,107
(14.8%)

Self
43,365
(6.8%)

Private insurance
(indemnity, HMO, PPO)
167,162
(26.3%)

Note: 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, 2013

The rhythm of hospital births by day of the week (see **Figure 1B-14**) reveals that the daily average of resident live births in 2013 was substantially lower on weekends than on weekdays. The same pattern applies to hospital inpatient admissions excluding newborn infants (**Figure 4A-4**).
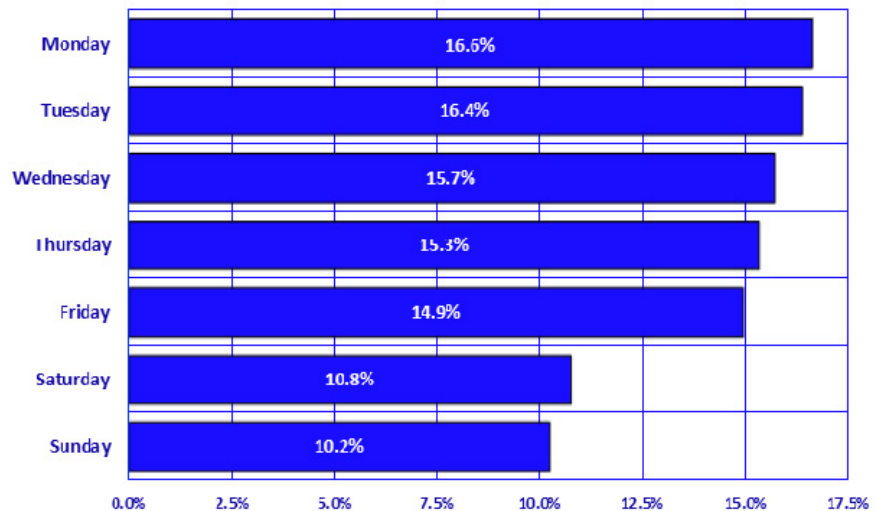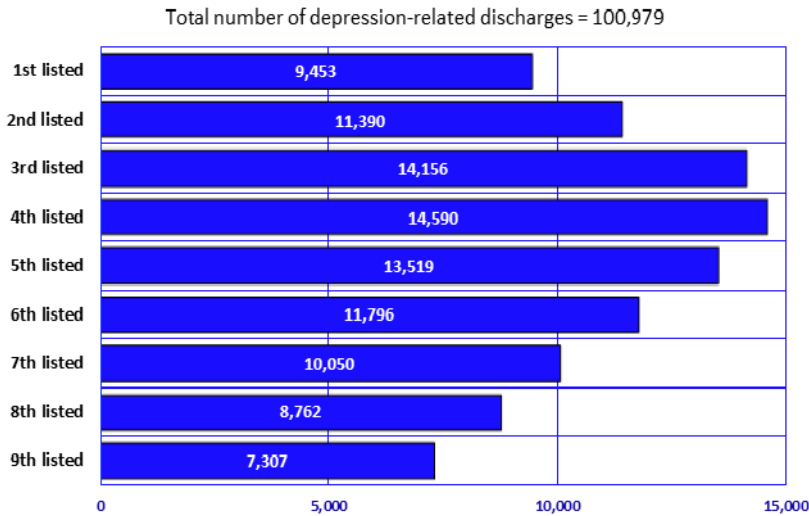
Day	Percent
Monday	16.6%
Tuesday	16.4%
Wednesday	15.7%
Thursday	15.3%
Friday	14.9%
Saturday	10.8%
Sunday	10.2%

Figure 4A-5
Number of Depression-Related[a] Inpatient Discharges and Emergency Room Visits of Arizona Residents, 2013

Total number of depression-related discharges = 100,979

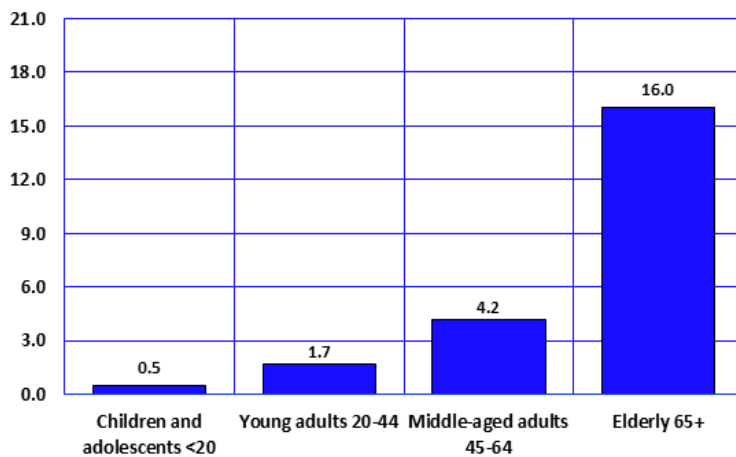|	
1st listed	9,453
2nd listed	11,390
3rd listed	14,156
4th listed	14,590
5th listed	13,519
6th listed	11,796
7th listed	10,050
8th listed	8,762
9th listed	7,307

Note: [a] ICD-9-CM diagnostic codes 300.4 and 311.

In 2013, the ICD-9-CM diagnostic codes 300.4 and 311 for depression were used on 2,568 inpatient discharge and 6,885 emergency room records as the first-listed diagnosis (for a total of 9,453 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 100,979 inpatient discharge and emergency room records. In fact, the depression diagnosis was substantially more frequently present as 2nd – 7th 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.

Figure 4A-6
Inpatient Hospitalization Rates for Enterocolitis due to *Clostridium difficile* By Age Group, Arizona Residents, 2013

Age group	Rate
Children and adolescents <20	0.5
Young adults 20-44	1.7
Middle-aged adults 45-64	4.2
Elderly 65+	16.0

In 2013, 2,701 Arizonans were hospitalized with the diagnosis of enterocolitis due to *Clostridium difficile*, a bacterial inflammation of the intestines (**Table 4A-1**). The disease is of growing public health concern because it is often acquired in hospitals and other health care institutions with long-term patients as residents.

The inpatient hospitalization rates associated with enterocolitis due to *Clostridium difficile* tend to increase with age. The rate for the elderly 65 years or older (16.0/10,000) was 3.8 times greater than the rate of middle-aged adults (**Figure 4A-6**).

In 2013, 189 Arizonans died from enterocolitis due to *Clostridium difficile.* Elderly 65 years or older accounted for 87.3 percent of these deaths (**Table 2C-27**).