

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.

Beginning in 2016, diagnostic groupings and code numbers are based solely on the International Classification of Diseases and Related Problems, 10th Revision, Clinical Modification (ICD-10-CM). ICD-10-CM incorporates greater details about medical diagnosis and represents a substantial increase in number of diagnostic codes, with more than 69,000 codes compared with about 14,000 under ICD-9-CM. Due to fundamental changes in the coding systems, caution should be exercised in comparing 2016 inpatient data to previous years. Please refer to "The Implementation of the International Classification of Disease, Tenth Revision," Introduction page ix, for further explanation of this new coding system.

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<sup>\*</sup>, the discharge rates are presented per 10,000 population. The groupings of ICD-9-CM and ICD-10-CM codes used to identify specific diagnostic categories can be accessed at: <a href="http://pub.azdhs.gov/health-stats/hip/cat/icd9-10primary.xlsx">http://pub.azdhs.gov/health-stats/hip/cat/icd9-10primary.xlsx</a>.

\*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

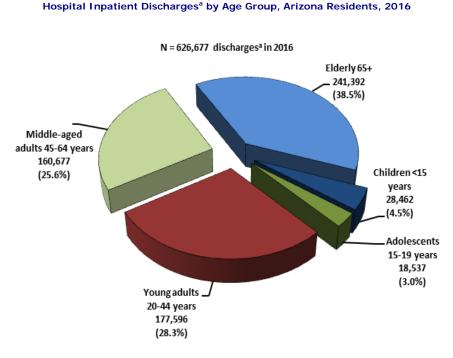


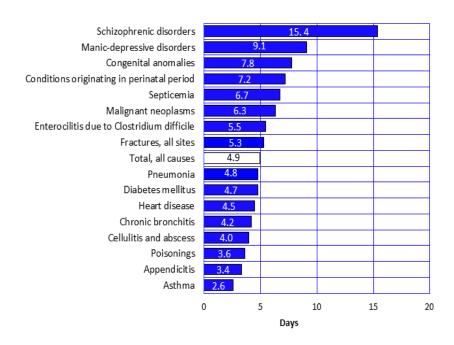
Figure 4A-1

In 2016, there were 626,677 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 38.5 percent of hospital discharges (Figure 4A-1), followed by young adults (20-44 years old) who comprised 28.3 percent of discharges, and middle-aged adults 45-64 year olds (25.6 percent of all inpatient discharges).

Diseases of the circulatory system were the most common diagnoses (13.4 percent of all discharges), followed by diseases of the *digestive system* (9.7 percent), and *injury and poisoning* diagnoses (9.6 percent; percentages based on data in **Table 4A-1**).

Note: <sup>a</sup> Excluding newborn infants.





Based on the data from the National Hospital Discharge Survey, the longest continuously running nationally representative hospital survey of 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 onethird of patients hospitalized for 8 days or more. In 2010, the average length of stay nationally was 4.8 days.

In 2016, the average length of hospital stay for Arizona inpatients was 4.9 days (**Figure 4A-2**, **Table 4A-5**). The percent of patients hospitalized for three days or less was 56.24 percent, with 16.46 percent of inpatients staying eight days or more.

The average length of stay was 4.5 days for heart disease, 4.7 days for diabetes, 6.3 days for cancer, and 15.4 days for schizophrenic disorders.

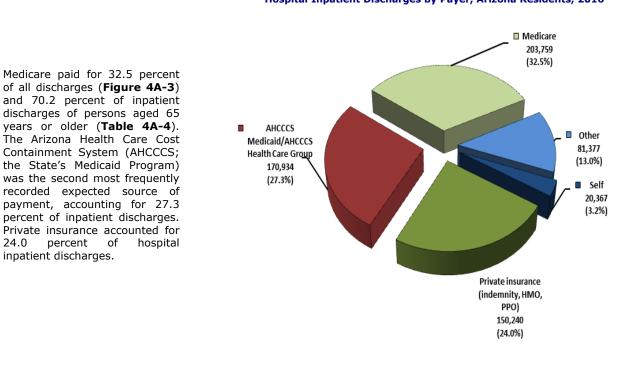
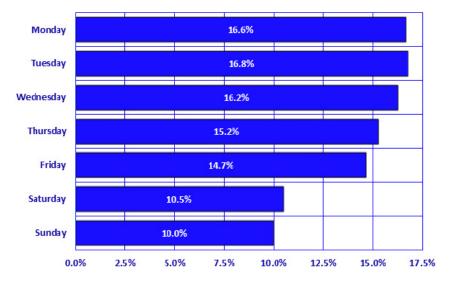


Figure 4A-3 Hospital Inpatient Discharges by Payer, Arizona Residents, 2016

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

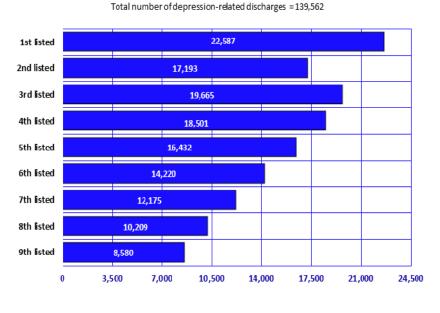
Figure 4A-4 Percent of Hospital Inpatient Admissions by Day of the Week, Arizona Residents, 2016

The rhythm of hospital births by day of the week (see **Figure 1B-14**) reveals that the daily average of resident live births in 2016 was substantially lower on weekends than on weekdays. The same pattern applies to hospital inpatient admissions excluding newborn infants (**Figure 4A-4**).



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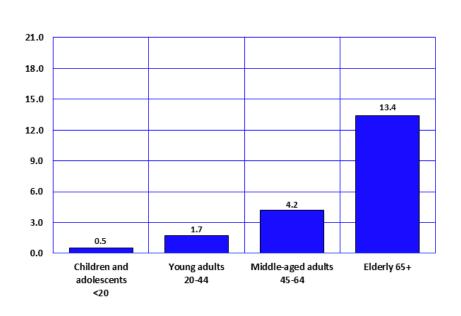
In 2016, *depression* accounted for 14,884 inpatient discharges and 7,703 emergency room visits as the first-listed diagnosis (for a total of 22,587 hospital encounters; **Figure 4A-5, Table 4A-1, Table 7C-1**).

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 <u>immediate</u>, but not necessarily the <u>underlying</u> cause of hospitalization.

However, when we count all entries of this code within the nine diagnostic fields, depression was mentioned on 139,562 inpatient discharges and emergency room records. In fact, the depression diagnosis was substantially more frequently present as  $2^{nd} - 7^{th}$  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.





2016, 2,672 Arizonans In were with the hospitalized 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 (13.4/10,000) was 3.2 times greater than the rate of middle-aged adults (**Figure 4A-6**).

In 2016, 164 Arizonans died from enterocolitis due to *Clostridium difficile*. Elderly 65 years or older accounted for 85.4 percent of these deaths (**Table 2C-27**).