



## **TOTAL MORTALITY**

The total number of deaths from all causes among Arizona residents increased by 7.6 percent from 75,700 in 2020 to 81,482 in 2021 (**Table 2A-1**). The age-adjusted mortality rate for all causes of death increased 4.8 percent from 842.2/100,000 in 2020 to 882.6/100,000 in 2021. When considering race/ethnicity, we observe an increase in the age adjusted mortality of all racial/ethnic groups in 2021 compared to 2011 and 2016 (**Figure 2A-2**).

There were some disparities by gender and race/ethnicity for total mortality. Deaths in Arizona by residents in 2021 mostly occurred in January (12.3 percent) and the smallest counts were recorded in April (6.7 percent) **(Table 2A-3)**.



The age-adjusted mortality rates discussed below are based on the year 2000 population standard. All mortality rates in sections 2A and 2B are age-adjusted. A detailed explanation of the age-adjustment of mortality rates is given in the **Technical Notes**.

The total age-adjusted mortality rate increased by 4.8 percent, from 842.2 deaths per 100,000 population in 2020 to 882.6 deaths in 2021 (**Figure 2A-1, Table 2B-2**). Over this period, the age-adjusted mortality rates increased for both males (5.5 percent) and females (3.9 percent).

The gap between male and female mortality rates remained between 2011 and 2021. In each year during the 11-year period, the male age-adjusted mortality rate was almost 1.4 to 1.5 times higher than the female age-adjusted mortality annually.

Note: \* Number of deaths per 100,000 persons (adjusted to the 2000 standard U.S. population).



Figure 2A-2 Age-adjusted Mortality Rates<sup>a</sup> for all Causes by Race/Ethnicity and Year, Arizona Residents, 2011, 2016, and 2021

> The 2021 age-adjusted death rates for the major racial/ethnic groups were as follows: for Asian or Pacific Islander, 597.0 deaths per 100,000 population; Hispanic or Latino, 892.8; White non-Hispanic, 835.4; Black or African American, 1113.6; and American Indian or Alaska Native, 1704.7 (**Figure 2A-2, Table 2B-4**).

In 2021, as in 2011 and 2016, American Indians and Blacks had higher total mortality rates than White non-Hispanics, Hispanics, and Asians. The total mortality rates for Asians were lower than the rates of both White non-Hispanics and Hispanics in 2011, 2016, and 2021.

Note: <sup>a</sup> Number of deaths per 100,000 persons (adjusted to the 2000 standard U.S. population).

Figure 2A-3 Percent of Annual Deaths by Month of Occurrence and Residence Status, Arizona, 2021

If there was no monthly variation in proportional contribution to total annual deaths, 8.3 percent (100/12) of deaths should occur monthly. However, when the monthly distribution of resident deaths is examined, the month of January (12.3 percent), December (10.2 percent), November (9.0 percent), September and October (8.4 percent) contributed more than the expected value (Figure 2A-3). April was the month with the lowest percent contribution to the total annual deaths among Arizona residents (AZR).

The majority of the 4,088 nonresidents who died in Arizona during 2021 did so during the months of January, December, November, October, March, and September.

April was the month with the lowest percent contribution (6.5 percent) to the annual death among out-of-State residents (OSR) who died in Arizona.

Autopsies were reported as performed on 7,003 decedents, or 8.6 percent of the deaths that occurred among Arizona residents in 2021. From 2011 – 2021, the percentage of deaths for which autopsies were reported varied from 8.6 percent in 2011 and 2012, a high of 10.1 percent in 2016, 9.8 percent in 2017 and 2019, 9.6 in 2018, 9.1 in 2013, then dropped back down to 8.6 percent in 2021. Additionally, a low of 8.5 percent in 2020, made it the lowest percentage among the time period.

The percentage autopsied varies by the decedent's demographic characteristics. By race/ethnicity (Figure 2A-4) the percentage autopsied was the lowest for White non-Hispanic than for other racial/ethnic groups. The prevalence of autopsies was substantially greater among Black, American Indian, and Hispanic or Latino sub-populations. A substantial portion of the differential in the use of autopsy by race/ethnicity reflects differences in the age and manner of death. For example, autopsies tend to be more common at younger ages and for deaths by homicide, suicide, accidents, and undetermined manner.



Figure 2A-4 Percentage of Deaths for which Autopsies were Reported by Race/Ethnicity and Year, Arizona Residents, 2011-2021

