



## 2A.

### TOTAL MORTALITY

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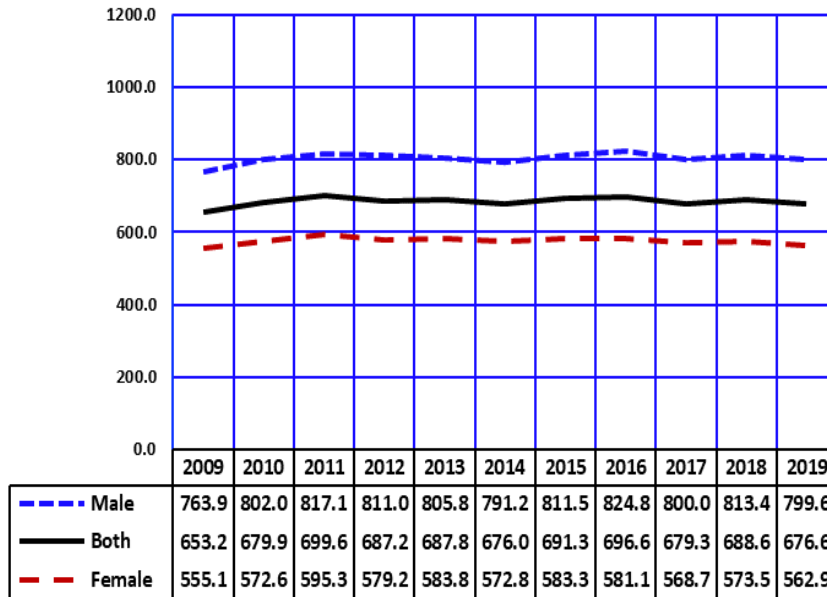
The total number of deaths from all causes among Arizona residents increased by 1.6 percent from 59,206 in 2018 to 60,161 in 2019 (**Table 2A-1**). The age-adjusted mortality rate for all causes of death declined from 688.6/100,000 in 2018 to 676.6 /100,000 in 2019. When considering race/ethnicity, we observe a decrease in the age adjusted mortality of all racial/ethnic groups except the American Indians who experienced an increase of 1.4 percent in their age adjusted mortality rate.

Between 2018 and 2019, the increase in mortality did not affect all leading causes of death. A reduction in the number of deaths was recorded for Influenza and pneumonia (14.9 percent), septicemia (11.3 percent), chronic lower respiratory diseases (3.7 percent), homicide (1.7 percent) and suicide (1.5 percent).

There were some disparities by gender and race/ethnicity for most selected causes of death. Between 2018 and 2019, not all subgroups (based on gender and race/ethnicity) witnessed an increase in mortality due to unintentional injury. While the highest increases in mortality due to unintentional injury was among Black females (18.2 percent), Hispanic males (11.5 percent) and White males (11.1 percent), a decline in mortality due to unintentional injury was recorded among Asian females (19.8 percent), American Indian males (18.2 percent), and Black males (0.5 percent). In terms of mortality due to diabetes, the overall mortality rate for both males and females increased from 23.0/100,000 in 2018 to 23.9/100,00 in 2019 following a period of stability during 2011 to 2014 (**Table 2B-2**). However, the increase in deaths due to diabetes between 2018 and 2019 did not affect all racial/ethnic groups. Black or African American regardless of gender, Asian males and Hispanic males witnessed a decrease in their age adjusted diabetes mortality rates.

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**Figure 2A-1**  
Age-adjusted Mortality Rates<sup>a</sup> for all Causes by Gender and Year,  
Arizona, 2009-2019



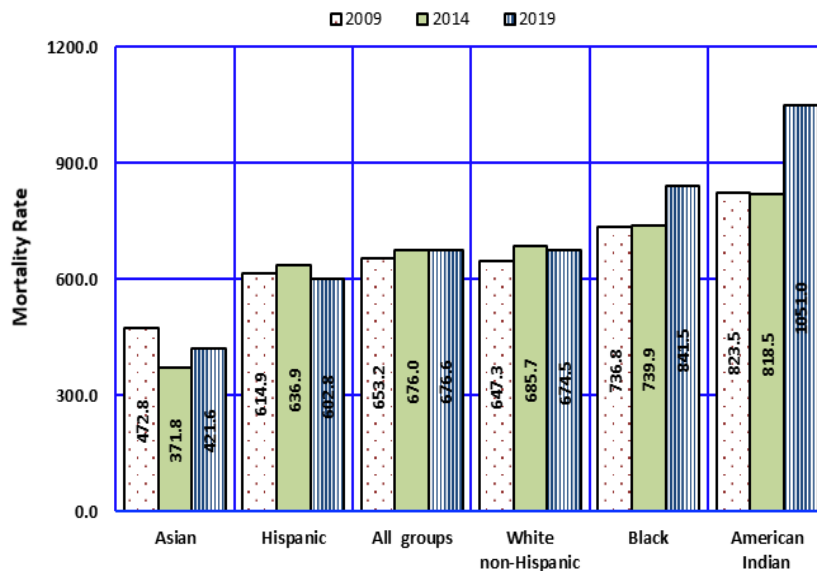
The age-adjusted mortality rates discussed below are based on the year 2000 population standard. All mortality rates in sections 2A and 2B are age-adjusted. A detailed explanation of the age-adjustment of mortality rates is given in the **Technical Notes**.

The total age-adjusted mortality rate decreased by 1.7 percent, from 688.6 deaths per 100,000 population in 2018 to 676.6 deaths in 2019 (**Figure 2A-1, Table 2B-2**). Over this period, the age-adjusted mortality rates decreased for both males (1.7 percent) and females (1.8 percent).

The gap between male and female mortality rates remained between 2009 and 2019. In each year during the 11-year period, the male age-adjusted mortality rate was consistently 1.4 times higher than the female age-adjusted mortality.

Note: <sup>a</sup> 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, 2009, 2014, and 2019



The 2019 age-adjusted death rates for the major racial/ethnic groups were as follows: for Asian or Pacific Islander, 421.6 deaths per 100,000 population; Hispanic or Latino, 602.8; White non-Hispanic, 674.5; Black or African American, 841.5; and American Indian or Alaska Native, 1051.0 (**Figure 2A-2, Table 2B-4**).

In 2019, as in 2009 and 2014, 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 2009, 2014, and 2019.

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

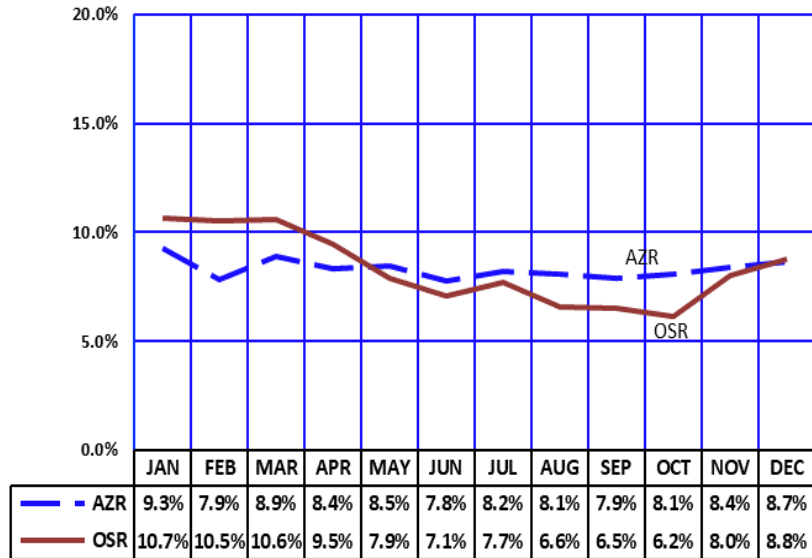
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If there was no monthly variation in proportional contribution to total annual deaths, 8.3 percent (100/12) of deaths should occur monthly. However, when the monthly distribution of resident deaths is examined, the month of January (9.3 percent), March (8.9 percent), December (8.7 percent), May (8.5 percent), April (8.4 percent) and November (8.4 percent) contributed more than the expected value (**Figure 2A-3**). June was the month with the lowest percent contribution to the total annual deaths among Arizona residents (AZR).

The majority of the 3,540 non-residents who died in Arizona during 2019 did so during the months of January, March, and February.

October was the month with the lowest percent contribution (6.2 percent) to the annual death among out-of-State residents (OSR) who died in Arizona.

**Figure 2A-3**  
Percent of Annual Deaths by Month of Occurrence and Residence Status, Arizona, 2019



**Figure 2A-4**  
Percentage of Deaths for which Autopsies were Reported by Race/Ethnicity and Year, Arizona Residents, 2009-2019

Autopsies were reported as performed on 5,903 decedents, or 9.8 percent of the deaths that occurred among Arizona residents in 2019. From 2009 – 2019, the percentage of deaths for which autopsies were reported varied from 9.7 percent in 2009, to a low of 8.6 percent in 2011 and 2012, a high of 10.1 percent in 2016, then 9.8 percent in 2019.

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.

