

2A.

TOTAL MORTALITY

The total number of deaths from all causes among Arizona residents increased by 1.9 percent from 2011 (n = 47,547) to 2012 (n = 48,459; **Table 2A-1**). In contrast, the age-adjusted mortality rate for all causes of death decreased from 699.6/100,000 in 2011 to 687.2/100,000 in 2012.

Compared to 2011, there were fewer deaths in 2012 for some of the leading causes of mortality including Alzheimer's disease (7.8 percent), accidents (5.2 percent), suicide (3.9 percent), and assault (2.8 percent). The causes with the largest increases were nephritis (7.6 percent), Parkinson's disease (6.2 percent), chronic liver disease and cirrhosis (4.1 percent), and malignant neoplasms (3.1 percent). When comparing the differences in the number of deaths due to leading causes from 2010 to 2011 and 2011 to 2012, we see less dramatic changes from 2011 to 2012 than were observed from 2010 to 2011.

When considering race/ethnicity and gender, Black or African American females had a substantial increase in the number of deaths due to major cardiovascular diseases from 2011 (n = 182) to 2012 (n = 219). In terms of mortality due to diabetes, the overall mortality rate for males and females slightly decreased from 2011 (**Figure 2B-18**), a welcome respite from the increases observed from 2009 to 2011. Unfortunately the decrease in deaths due to diabetes did not hold true for all groups, with American Indians experiencing a 30.1 percent increase in the age-adjusted mortality rate due to diabetes from 2011. Specifically, the number of deaths caused by diabetes among American Indian males increased 60 percent from 2011 (n = 50) to 2012 (n = 80).



Figure 2A-1

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 **Technical Notes**.

The total age-adjusted mortality rate decreased by 1.8 percent from 699.6 in 2011 to 687.2 in 2012 (**Figure 2A-1, Table 2B-2**). The age-adjusted mortality rates decreased for both females and males.

The difference between male and female mortality rates narrowed slightly between 2002 and 2012 with the male age-adjusted mortality rate being 46.6 percent greater than the female age-adjusted mortality rate in 2002, and 40 percent greater in 2012. However, the parallel trend lines (**Figure 2A-1**) do not suggest that the full convergence in mortality risk between males and females is likely to happen anytime soon.

Notes: $^{\rm a}$ Number of deaths per 100,000 persons (adjusted to the 2000 standard U.S. population).



Figure 2A-2 Age-adjusted Mortality Rates^a for all Causes by Race/Ethnicity and Year, Arizona Residents, 2002, 2007, and 2012

> The 2012 age-adjusted death rates for the major race/ethnic groups were as follows: for Asian or Pacific Islander, 440.1 deaths per 100,000 population; Hispanic or Latino, 616.2; White non-Hispanic, 693.1; American Indian or Alaska Native, 843.8; and Black or African American, 886.5 (**Figure 2A-2, Table 2B-4**).

> In 2012, as in 2002 and 2007, Blacks and American Indians had higher total mortality rates than White non-Hispanics, Hispanics, and Asians. The total mortality rates for Asians were lower than the rates of White non-Hispanics in 2002, 2007, and 2012.

Notes: ^a Number of deaths per 100,000 persons (adjusted to the 2000 standard U.S. population).

If there was no monthly variation in proportional contribution to the annual deaths total, 8.3 percent (100/12) of deaths should occur monthly. However, when the monthly distribution of resident deaths is examined, March (9.1 percent), December (8.8 percent), January (8.7 percent), and both February and April (8.6 percent) were higher in 2012 from the expected value (Figure 2A-3). September, August, June, July, and November were the months with the lowest proportional contributions to the annual death total among Arizona residents.

The majority of the 2,103 non-residents who died in Arizona during 2012 did so during January, February, March, and December. September was the month with the lowest proportional contribution (5.4 percent) to the annual death total among out-of-State residents who died in Arizona.



Figure 2A-3 Percent Annual Deaths by Month of Occurrence and Residence Status, Arizona, 2012

Figure 2A-4 Percentage of Deaths for which Autopsies were Reported by Race/Ethnicity and Year, Arizona Residents, 2002-2012

Autopsies were reported as performed on 4,148 decedents, or 8.6 percent of the deaths that occurred among Arizona residents in 2012. From 2002 – 2012, the percentage of deaths for which autopsies were reported varied from a high of 10.6 percent in 2002 to a low of 8.6 percent in 2011 and 2012.

The percentage autopsied varies by the decedent's demographic characteristics. By race/ethnicity (Figure 2A-4) the percentage autopsied was lower for the White non-Hispanic and Asian population than for other groups. The prevalence of autopsies was substantially greater among American Indian, Black, 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.

