



## 2D.

### **PATTERNS OF PREMATURE MORTALITY**

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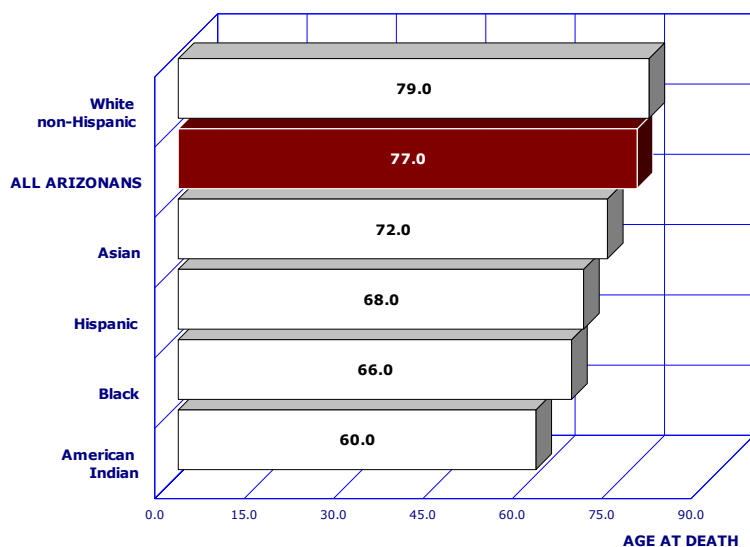
Compared with the White non-Hispanics, the race/ethnic minority groups in Arizona have had greater percentages of people younger than 25 years (47.1 vs. 27.1 percent). In contrast, people aged 65 years and older accounted for 19.5 percent of White non-Hispanics, but only 5.6 percent of all ethnic minority groups combined (percentages based on race-and-age-specific population denominators in **Table 10C-1**).

Similar to the differences in the age composition is the contrasting pattern of proportional mortality by age group. In 2011, the elderly (65 years and older) comprised 77.0 percent of the total mortality among White non-Hispanics, compared to 43.5 percent among American Indians, 52.5 percent among Blacks, 56.0 percent among Hispanics, and 61.4 percent among Asians. One out of 107 White non-Hispanics who died in 2011 was less than 20 years old (0.9 percent). In contrast, persons younger than 20 years of age accounted for one out of every 16 (6.0 percent) deaths among Arizona ethnic minorities (**Tables 2C-4, 2C-10, 2C-14, 2C-18, 2C-22, and 2C-26**). These values indicate that Arizona's White non-Hispanics tend to experience mortality at later stages of life than members of Arizona's racial/ethnic minority groups.

Beginning with the 2005 edition of the report, information about the arithmetic mean age at death was supplemented with the information about the median age, the age in the middle and conceptually similar to life expectancy at birth (see **Table 2D-1**). The median age is higher than the arithmetic mean age in negatively skewed distributions.

## 2D. PATTERNS OF PREMATURE MORTALITY

**Figure 2D-1**  
Median Age at Death by Race/Ethnicity, Arizona, 2011

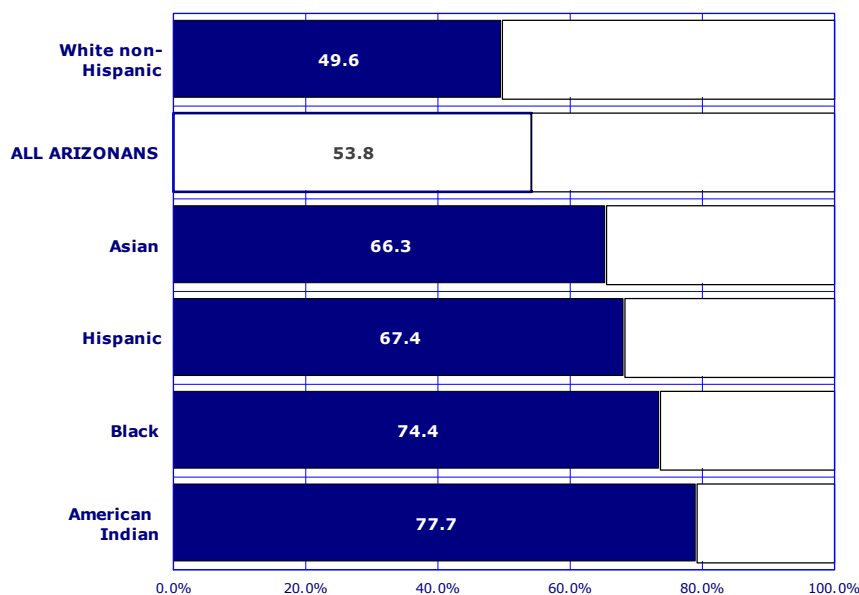


The median age at death remained stable at 77 years from 2010 to 2011 (**Table 2D-1**). Compared to 2010, there were more deaths in 2011 from causes such as diabetes and Alzheimer's disease i.e., the causes with the highest median age at death (72 and 87 years, respectively; **Table 2B-1, Table 2D-3, Figure 2D-3**).

One out of two Arizonans who died in 2011 was older than 77 years of age. Among Arizona females, fifty percent were older than 81 years when they died in 2011. Among males, the median age at death was 73 years in 2001 - 2011. **Table 2D-1** shows both the average and the median age at death by race/ethnicity and gender in 2001-2011.

In 2011, compared to White non-Hispanics, on average Asians were 7 years younger at time of death, Blacks were 12 years younger, Hispanics were 13 years younger, and American Indian residents of Arizona were 18 years younger (based on the mean age at death).

**Figure 2D-2**  
Percent of Deaths before Expected Years of Life Reached\* by Race/Ethnicity, Arizona, 2011



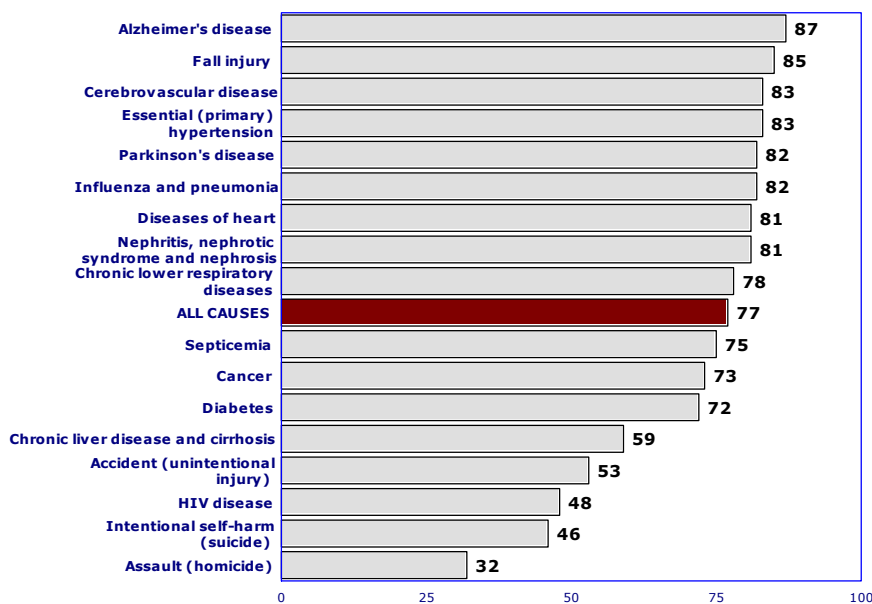
The percent of deaths before expected years of life reached (a premature death ratio) slightly decreased for all Arizonans at 53.8 in 2011 and 54.5 in 2010 (**Figure 2D-2**).

As expected, based on the findings for average and median age at death, White non-Hispanics were the only group with less than 50 percent of all deaths (49.6 percent) occurring before the expected years of life were reached (**Figure 2D-2**). In contrast, at least 66.3 percent of deaths among race/ethnic minority groups occurred prematurely.

Among American Indians, nearly eight out of ten deaths (77.7 percent) were premature (**Table 2D-2**).

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**Figure 2D-3**  
**Median Age at Death for Selected Leading Causes of Death,**  
**Arizona, 2011**

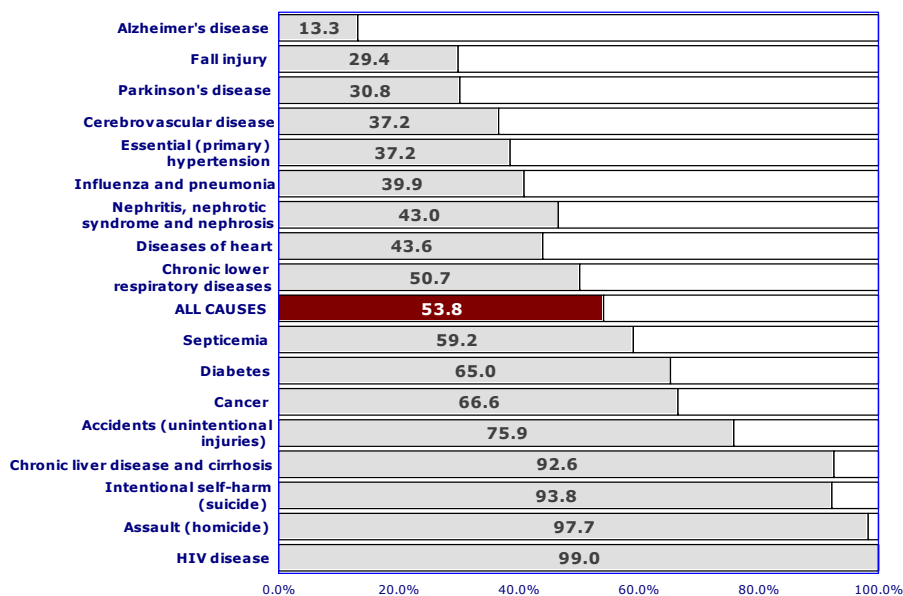


In 2011, *Alzheimer's disease* again ranked highest with median age at death of 87 years (**Figure 2D-3**), exceeding by 10 years the median age at death for all causes (**Figure 2D-3, Table 2D-3**).

Among the leading causes of death, *homicide* had the lowest median age at death of 32 years.

From 2001 to 2011, *cancer* has replaced *diseases of the heart* as the leading cause of death (based on the number of deaths). This epidemiologic transition in mortality risks is likely to have long lasting implications for the life expectancy of Arizonans, because the median age at death from *cancer* (73 years) is substantially lower the median age at death from *diseases of the heart* (81 years).

**Figure 2D-4**  
**Percent of Deaths before Expected Years of Life Reached for Selected Leading**  
**Causes of Death, Arizona, 2011**



Only 13.3 percent of deaths from *Alzheimer's disease* occurred before the age of 77.7 years, i.e., before the expected years of life were reached. In contrast, almost all deaths from *HIV disease* were premature at 99.0 percent (**Figure 2D-4, Table 2D-4**) and the median age at death from *HIV disease* remained increased from the previous year at 48 years (**Figure 2D-3, Table 2D-3**).

A minority of deaths from *diseases of heart* were premature (43.6 percent). In contrast 66.6 percent of deaths from *cancer* occurred before the expected years of life were reached.