



## 2D.

### **PATTERNS OF PREMATURE MORTALITY**

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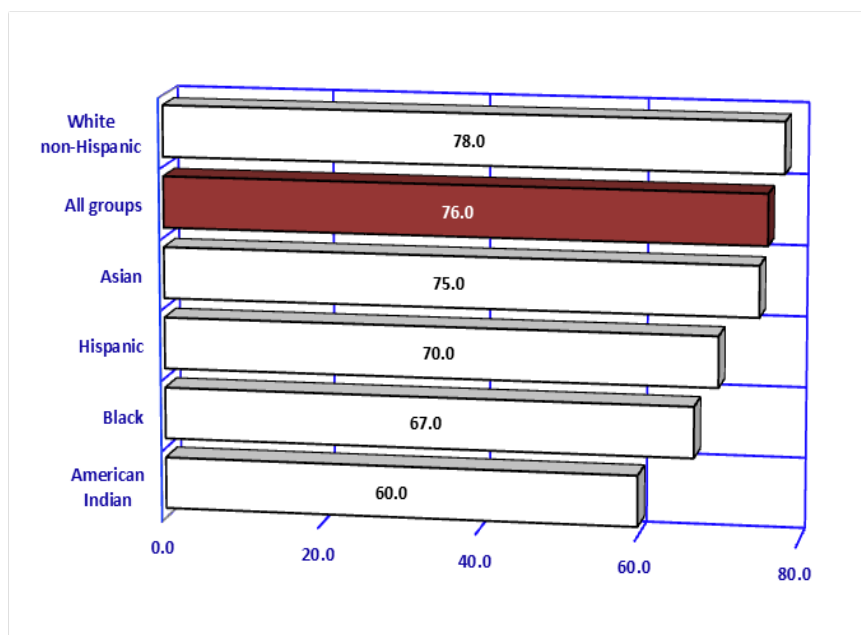
In 2018, the race /ethnic minority groups represented greater percentage of people younger than 25 years (43.3%) than White non-Hispanics (24.6%). In contrast, people aged 65 years and older accounted for 24.7 percent of White non-Hispanics, but only 7.6 percent of all ethnic minority groups combined (percentages based on race-and-age-specific population denominators in **Table 10C-1**).

Arizona's population distribution by age and race/ethnicity is related to patterns of mortality among these subgroups. In 2018, of all deaths among the elderly (65 years and older), 82.0 percent were White non-Hispanics, 10.9 percent were Hispanic or Latino, with the three remaining racial/ethnic groups comprising only 6.4 percent of all deaths in this age group (**Table 2C-26**). Looking at younger ages, Native American children comprised only 5.4 percent of Arizona's population age 1–14, but accounted for 11.5 percent of all childhood deaths. Native American adolescents represented only 5.0 percent of all adolescents, but accounted for 11.2 percent of all adolescent deaths. Finally, Native American young adults (ages 20–44) represented 4.7 percent of all young adults but comprised 15.5 percent of all young adult deaths. In summary, Arizona's racial/ethnic minority groups tend to experience mortality earlier in life than Arizona's White non-Hispanics.

Beginning with the 2005 edition of the report, information about the arithmetic mean age at death was supplemented with information about the median age, or the age in the center of the distribution when sorted by age (see **Table 2D-1**). The median age is higher than the arithmetic mean age in negatively skewed distributions.

## 2D. PATTERNS OF PREMATURE MORTALITY

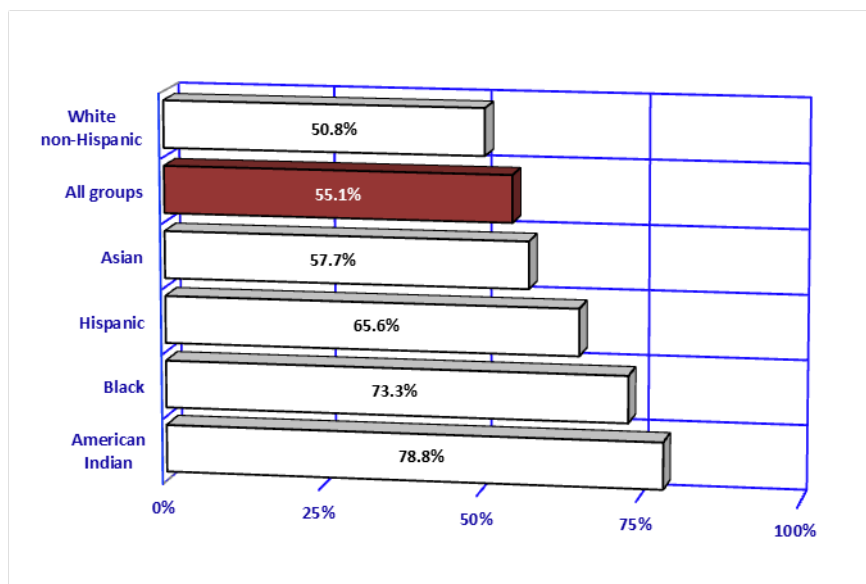
**Figure 2D-1**  
**Median Age at Death by Race/Ethnicity, Arizona, 2018**



The median age at death remained at 76 years from 2014 to 2018 (**Table 2D-1**). In other words, one of every two Arizonans who died in 2018 was older than 76 years of age. Among Arizona females, 50 percent were 80 years old when they died in 2018. Among males, the median age at death was 73 years in 2018. **Table 2D-1** shows both the median age at death by race/ethnicity and gender from 2008-2018.

In 2018, compared to White non-Hispanics, on average Asians were 3 years younger at time of death, Hispanics were 8 years younger, Blacks were 11 years younger, and American Indian residents of Arizona were 18 years younger (based on the median age at death).

**Figure 2D-2**  
**Percent of Deaths before Expected<sup>a</sup> Years of Life Reached by Race/Ethnicity, Arizona, 2018**



In 2018, the percent of deaths before expected years of life reached (a premature death ratio) was 55.1 percent, -a level that remained unchanged from the prior year (**Figure 2D-2**).

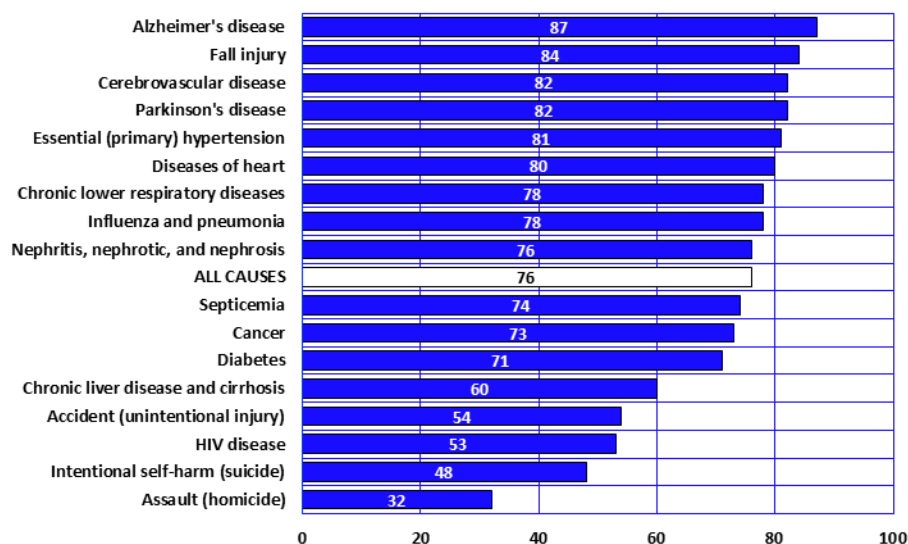
As expected, based on the findings for average and median age at death, White non-Hispanics were the only group with about 50 percent of all deaths (50.8 percent) occurring before the expected years of life were reached (**Figure 2D-2**). On average, 68.7 percent of the deaths among racial/ethnic minority groups occurred prematurely.

Among American Indians, nearly eight out of ten deaths (78.8 percent) were premature (**Table 2D-2**).

Note: <sup>a</sup> Expected years of life at birth for all U.S. residents (78.8 years).

## 2D. PATTERNS OF PREMATURE MORTALITY

**Figure 2D-3**  
Median Age at Death for Selected Leading Causes of Death, Arizona, 2018

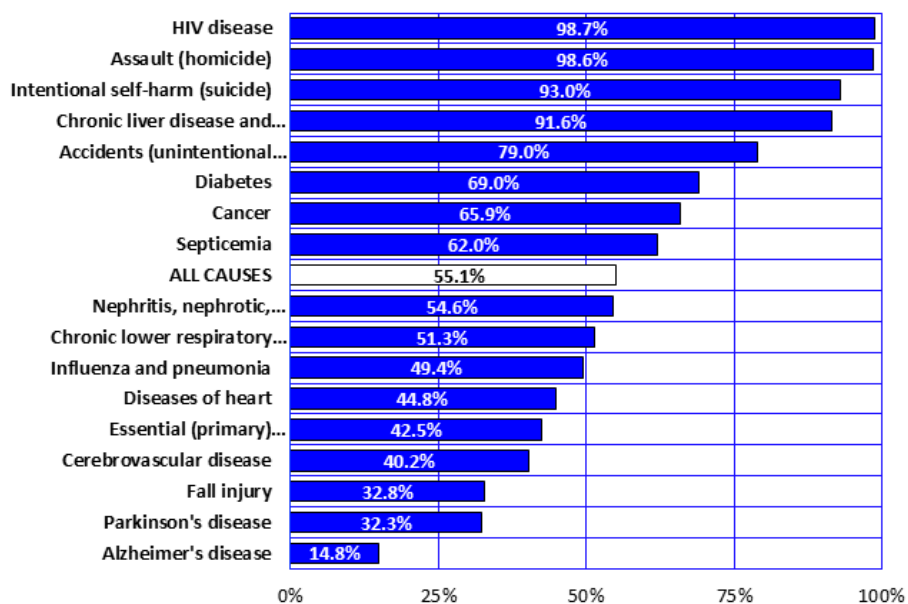


In 2018, *Alzheimer's disease* had the highest median age of death at 87 years (**Figure 2D-3**), exceeding by 11 years the median age at death for all causes (**Figure 2D-3**, **Table 2D-3**).

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

From 2010-2015, *cancer* 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 than the median age at death from *diseases of the heart* (80 years).

**Figure 2D-4**  
Percent of Deaths before Expected Years of Life<sup>a</sup> Reached for Selected Leading Causes of Death, Arizona, 2018



Only 14.8 percent of deaths from *Alzheimer's disease* occurred before the age of 78.8 years, i.e., before the expected years of life were reached. In contrast, almost all deaths from *HIV disease* were premature (98.7 percent; **Figure 2D-4**, **Table 2D-4**). The median age at death from *HIV disease* was 53 years in 2018, showing a decrease from 54 years recorded in 2017 (**Figure 2D-3**, **Table 2D-3**).

A minority of deaths from *diseases of heart* were premature (44.8 percent). In contrast 65.9 percent of deaths from *cancer* occurred before the expected years of life were reached.

Note: <sup>a</sup> Expected years of life at birth for all U.S. residents (78.8 years).