



2D.

PATTERNS OF PREMATURE MORTALITY

Compared with the White non-Hispanics, the race/ethnic minority groups in Arizona have had greater percentages of people younger than 25 years (50.7 vs. 26.6 percent). In contrast, people aged 65 years and older accounted for 19.7 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**).

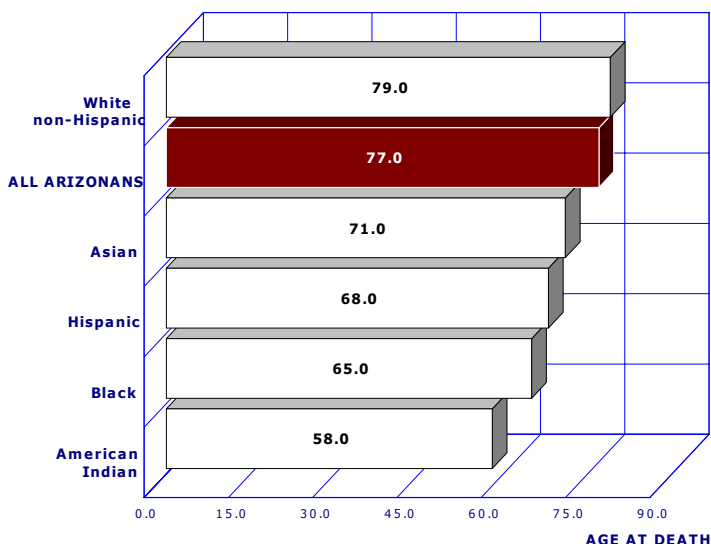
Similar to the differences in the age composition is the contrasting pattern of proportional mortality by age group. In 2010, the elderly (65 years and older) comprised 76.9 percent of the total mortality among White non-Hispanics, compared to 40.5 percent among American Indians, 51.5 percent among Blacks, 54.9 percent among Hispanics, and 60.2 percent among Asians. One out of 54 White non-Hispanics who died in 2010 was less than 25 years old (1.9 percent). In contrast, persons younger than 25 years of age accounted for one out of every ten (9.8 percent) deaths among Arizona ethnic minorities.

The smaller the proportion of elderly as well as the smaller proportion of deaths at older age, the lower is the average age at death.

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.

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Figure 2D-1
Median Age at Death by Race/Ethnicity, Arizona, 2010

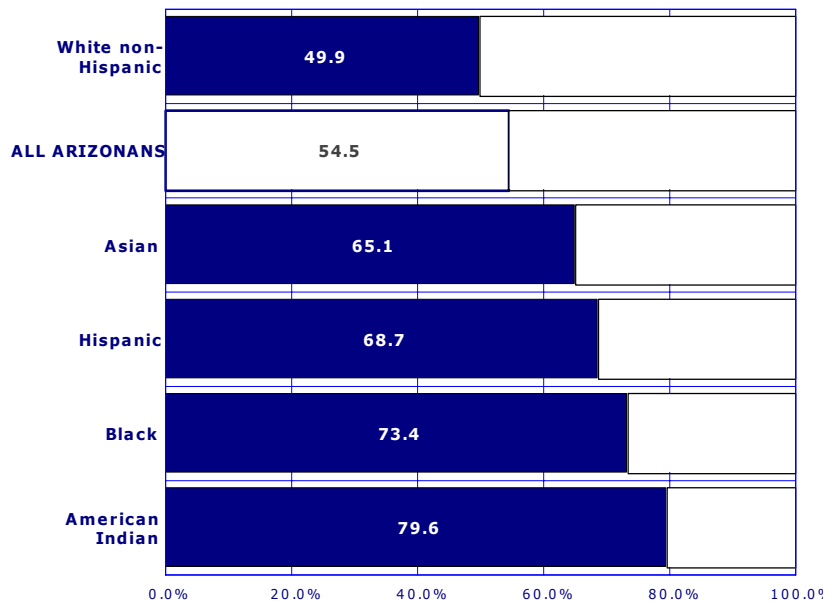


The median age at death increased from 76 years in 2009 to 77 years in 2010 (**Table 2D-1**). Compared to 2009, there were more deaths in 2010 from causes such as diabetes and Alzheimer's disease i.e., the causes with the highest median age at death (73 and 87 years, respectively; **Table 2B-1, Table 2D-3, Figure 2D-3**).

One out of two Arizonans who died in 2010 was older than 77 years of age. Among Arizona females, fifty percent were older than 80 years when they died in 2010 (no change since 2003) Among males, the median age at death was 73 years in 2000 - 2010. **Table 2D-1** shows both the average and the median age at death by race/ethnicity and gender in 2000-2010.

In 2010, compared to White non-Hispanics, on average Asians were 8 years younger at time of death, Hispanics were 11 years younger, Blacks were 14 years younger, and American Indian residents of Arizona were 21 years younger.

Figure 2D-2
Percent of Deaths before Expected Years of Life Reached* by Race/Ethnicity, Arizona, 2010



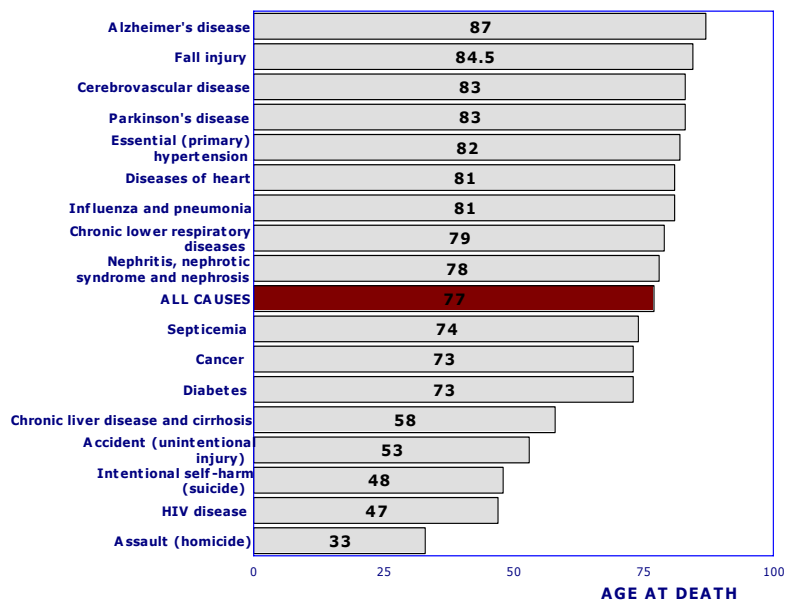
The percent of deaths before expected years of life reached (a premature death ratio) slightly increased for all Arizonans at 54.5 in 2010 and 52.5 in 2009 (**Figure 2D-2**).

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 (49.9 percent) occurring before the expected years of life were reached (**Figure 2D-2**). In contrast, at least 65.1 percent among race/ethnic minority groups occurred prematurely.

Among American Indians, eight out of ten deaths (79.6 percent) were premature (**Table 2D-2**).

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Figure 2D-3
Median Age at Death for Selected Leading Causes of Death, Arizona, 2010

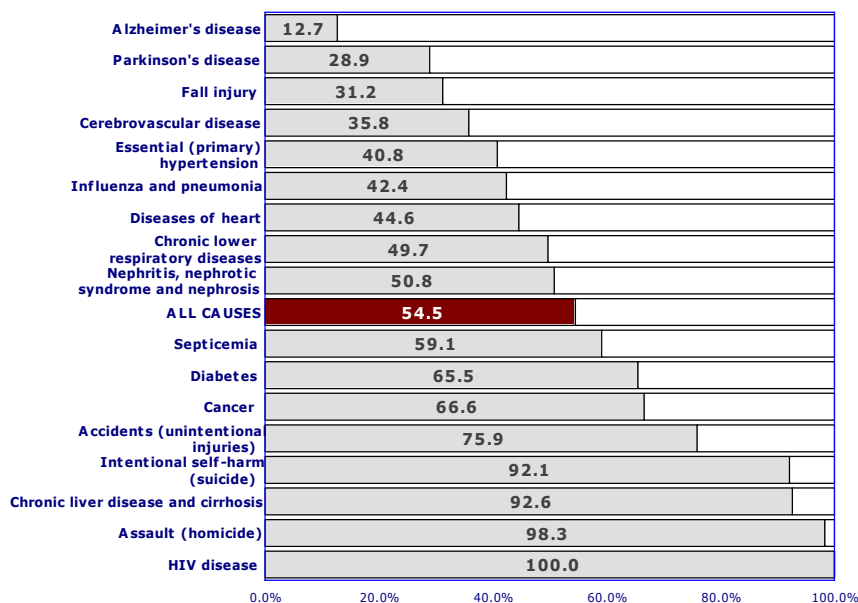


In 2010, *Alzheimer's disease* again ranked highest with median age at death of 87 years (**Figure 2D-3**), exceeding by 10 years the median age at death for all causes (**Figure 2D-3, Table 2D-3**).

Among the leading causes of death, *homicide* had the lowest median age at death of 33 years.

In 2009-2010, *cancer* replaced *diseases of the heart* as the leading cause of death (based on both the number of deaths and the age-adjusted mortality rates). 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, 2010



Only 12.7 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 100.0 percent (**Figure 2D-4, Table 2D-4**) and the median age at death from *HIV disease* remained unchanged from previous year at 47 years (**Figure 2D-3, Table 2D-3**).

A minority of deaths from *diseases of heart* were premature (44.6 percent). In contrast 66.6 percent of deaths from *cancer* occurred before the expected years of life were reached.