Patterns of Premature Mortality

In 2017, the race/ethnic minority groups represented a greater percentage of people younger than 25 years (44.0%) than White non-Hispanics (24.9%). In contrast, people aged 65 years and older accounted for 24.3% of White non-Hispanics, but only 7.4% 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 2017, of all deaths among the elderly (65 years and older), 82.9% were White non-Hispanics, 10.4% were Hispanic or Latino, with the three remaining racial/ethnic groups comprising only 6.1% of all deaths in this age group (Table 2C-26). Looking at younger ages, Native American children comprised only 5.4% of Arizona’s population age 1–14, but accounted for 11.7% of all childhood deaths. Native American adolescents represented only 5.1% of all adolescents, but accounted for 16.7% of all adolescent deaths. Finally, Native American young adults (ages 20–44) represented 4.8% of all young adults but comprised 14.2% 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

The median age at death remained at 76 years from 2014 to 2017 (Table 2D-1). In other words, one of every two Arizonans who died in 2017 was older than 76 years of age. Among Arizona females, 50 percent were 79 years older when they died in 2017. Among males, the median age at death was 73 years in 2017. Table 2D-1 shows both the median age at death by race/ethnicity and gender from 2007-2017.

In 2017, compared to White non-Hispanics, on average Asians were 3 years younger at time of death, Hispanics were 9 years younger, Blacks were 13 years younger, and American Indian residents of Arizona were 17 years younger (based on the median age at death).

The percent of deaths before expected years of life reached (a premature death ratio) decreased for all Arizonans from 55.3 percent in 2016 to 55.1 percent (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 (50.6 percent) occurring before the expected years of life were reached (Figure 2D-2). On average, 69.7 percent of the deaths among racial/ethnic minority groups occurred prematurely.

Among American Indians, nearly eight out of ten deaths (77.9 percent) were premature (Table 2D-2).
In 2017, 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 33 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).

Only 16.1 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, all deaths from HIV disease were premature (Figure 2D-4, Table 2D-4) and the median age at death from HIV disease increased at 54 years in 2017 (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.