ARIZONA DEPARTMENT
OF HEALTH SERVICES

SUICIDE AND SELF-INFLICTED INJURY IN ARIZONA

2011 - 2021

~ Health and Wellness for all Arizonans ~

Kathleen M. Hobbs, Governor
State of Arizona

Jennifer Cunico, Cabinet Executive Officer/ Director
Arizona Department of Health Services

ARIZONA DEPARTMENT OF HEALTH SERVICES
BUREAU OF CHRONIC DISEASE AND HEALTH PROMOTION
BUREAU OF ASSESSMENT AND EVALUATION
DIVISION OF PUBLIC HEALTH PREVENTION SERVICES

150 North 18th Avenue, Suite 310
Phoenix, Arizona 85007

www.azdhs.gov

This report is provided as required by A.R.S. §36-146

Submitted to

The Honorable Kathleen M. Hobbs, Governor, State of Arizona
The Honorable Warren Peterson, President, Arizona State Senate
The Honorable Ben Toma, Speaker, Arizona House of Representatives
The Honorable Adrian Fontes, Secretary of State
LTC Dana Allmand, Arizona Department of Veterans Services

Prepared by

Mercedeh Reamer, MPH, Epidemiologist
Danielle Manapat, PhD, Data Analyst
Matthew Roach, MPH, Data Steward/Acting Vital Statistics Manager
Yan Huang, MS, Vital Statistics Health Management Analyst

Acknowledgements

Teresa Aseret-Manygoats, MPA, Chief, Bureau of Chronic Disease and Health Promotion
Martín F. Celaya, MPH, Chief, Bureau of Assessment and Evaluation
Maritza Valenzuela, Chief, Office of Injury and Violence Prevention
Ginger Dixon, MS, Lead, Prevention Epidemiology and Evaluation Team
Joshua Stegemeyer, Suicide Prevention Program Manager
Celia Nabor, MPA, Assistant Director, Public Health Prevention Services

Data Sources

1. Arizona Department of Health Services. (2023, Nov 23). Population Denominators. 2021 Population Denominators. Retrieved December 15, 2022, from https://pub.azdhs.gov/health-stats/menu/info/pop/index.php?pg=2021
2. Arizona Hospital Discharge Data Set, Business Intelligence Office, Arizona Department of Health Services
3. Database Application for Vital Events (D.A.V.E.) System, Bureau of Vital Records, Arizona Department of Health Services
4. U.S. Census Bureau, 2016-2020 American Community Survey 5-Year Estimates, Table S2101-Veteran Status https://data.census.gov/table/ACSST5Y2021.S2101?q=S2101&g=040XX00US04
5. Garnett MF, Curtin SC, Stone DM. Suicide Mortality in the United States, 2001-2021. NCHS Data Brief, no 464. Hyattsville, MD: National Center for Health Statistics. 2023. DOI: https://dx.doi.org/10.15620/cdc:125705

Suggested Citation

Reamer M, Manapat D, Roach M, Huang Y. Suicide and Self-Inflicted Injury in Arizona, 2011-2021. Phoenix, AZ: Arizona Department of Health Services; 2023.

Intended Audience

This is a technical report on the analysis of incidence of suicide mortality and attempt in Arizona, years 2011-2021. This report is primarily aimed at those involved in suicide surveillance and prevention, including those working in public health, healthcare providers, policymakers, participating agencies, community-based organizations, researchers, families, schools, veterans service organizations, and other stakeholders. The key findings in this report should assist in the identification of future interventions and guide evidence-based efforts towards the reduction of suicide amongst all Arizonans.

Methods

This report utilized Arizona Hospital Discharge Data, as well as data from the Database Application for Vital Events (D.A.V.E.) All rates are calculated using 2021 population denominators provided by the Arizona Department of Health Services. Unless otherwise stated as crude, all calculated rates are age-adjusted.

Table of Contents

Executive Summary

Suicide

Suicide as Compared to Other Causes of Death

In 2021, suicide was the 10th leading cause of death in Arizona, with 1,469 certified deaths attributed to suicide among Arizona residents. The 2021 Arizona age-adjusted mortality rate for suicide (19.4 suicides per 100,000 population) was greater than the national rate (14.1 suicides per 100,000 population) of suicide that year. Nationally, suicide was the 11th leading cause of death in the United States according to the Centers for Disease Control and Prevention, with 48,183 deaths attributed to suicide in 2021.

Trends

In Arizona, as in the United States, suicide rates have been rising. From 2011 to 2021, the state's suicide mortality rate increased by 12.8 percent (from 17.2 suicides per 100,000 population to 19.4 suicides per 100,000 population) while the national age-adjusted suicide mortality rate increased by 14.6 percent (from 12.3 suicides per 100,000 population to 14.1 suicides per 100,000 population). It is worth noting that while suicide mortality rates have generally been rising in Arizona from 2011-2021, the years 2018-2020 saw a decrease from 19.5 suicides per 100,000 population in 2018 to 18.9 suicides per 100,000 population in 2019, and 18.2 suicides per 100,000 population in 2020. Unfortunately, the rate increased in 2021 to 19.4 suicides per 100,000 population.

Years of Potential Life Lost

In 2021, suicide deaths in Arizona contributed to premature mortality with a total of 41,980 years of potential life lost (YPLL), as compared to unintentional injuries (152,827 YPLL), malignant neoplasms (86,084 YPLL), and diseases of the heart (67,034 YPLL).[1]

Sex

In 2021, suicide was the 8th leading cause of death among males (31.2 suicides per 100,000 population) and ranked 16th among females (7.9 suicides per 100,000 population) in Arizona.

Location

The majority of suicide fatalities occurred in the home (66.3%).

Methods of Suicide

The most common methods of suicide in Arizona were firearm (59.7 percent), strangulation/hanging (22.9 percent), and poisoning by drugs (8.4 percent).

Age

Arizonans aged 10-14 years had the lowest suicide mortality rates (3.4 suicides per 100,000 population), while residents aged 85+ years experienced the highest rates of suicide death among all age groups (33.5 suicides per 100,000 population).

[1] Premature death, defined as death occurring before the age of 75, is measured in Years of Potential Life Lost (YPLL). The YPLL numbers presented here represent the total number of years of life lost by all the persons who suffered early deaths by a specific cause in the given year.

Race/Ethnicity
American Indian/Alaska Native (AI/AN) and White non-Hispanic adults have consistently experienced the highest suicide mortality rates compared to other racial/ethnic groups in Arizona. In 2021, AI/AN adults experienced the highest suicide rate (39.7 suicides per 100,000 population) among racial/ethnic groups, followed by White non-Hispanic adults (23.3 suicides per 100,000 population), while Asian/Pacific Islander adults recorded the lowest suicide rate (9.8 suicides per 100,000 population). Trends in suicide rates from 2011 to 2021 demonstrate the highest suicide mortality rates were among AI/AN men for all but 3 years, 2011, 2012, and 2014. In those years, the highest rates were for White Non-Hispanic men.

Veterans
In 2021, 278 veterans died by suicide, with the suicide rate among veterans living in Arizona (58.9 suicides per 100,000 population) 3.2 times higher than their non-veteran counterparts (18.4 suicides per 100,000 population). In 2021, crude mortality rates ((the number of suicides/the population of Arizona)*100,000) in Arizona (including both residents and non-residents who died by suicide in Arizona) are highest (58.9 suicides per 100,000 population) compared to those in the Arizona general population (21.0 suicides per 100,000 population). When examined by sex and veteran status, suicide mortality rates are higher in both veteran males and females (61.9 and 15.4 suicides per 100,000 population) compared to non-veteran males and females (40.4 and 10.5 suicides per 100,000 population), respectively. In 2021, firearms were consistently the leading method of suicide mortality among veteran residents of Arizona, used in 79.7% of veteran suicide deaths. Non-opioid prescription drugs were the most commonly found substances in suicide cases among Arizona veterans where drug poisoning was the method used.

Self-Inflicted Injuries

Self-inflicted injuries result from an individual inflicting physical damage to their own body. These injuries may be a non-suicidal self-injury (NSSI) or an attempt to end one's life (a suicide attempt). NSSI is "deliberate, self-inflicted destruction of body tissue without suicidal intent and for purposes not socially sanctioned, [and] includes behaviors such as cutting, burning, biting and scratching skin."[2] NSSI is most often used as a coping mechanism to self-soothe or to handle emotional pain. While NSSI is a risk factor for suicide, it does not indicate suicidal thoughts, ideas, or behaviors.[3]

Emergency Room Visits and Hospitalizations
In 2021, there were 11,433 hospital discharges (3,777 hospitalizations and 7,656 emergency room visits) due to self-inflicted injuries. However, self-inflicted injuries recorded in hospital discharge data do not specify a non-suicidal self-injury versus a suicide attempt, and therefore emergency room visits and hospitalizations for self-inflicted injury should not be strictly interpreted as seeking care only following a suicide attempt.

---

[2] Zetterqvist, M. (2015). The DSM-5 diagnosis of nonsuicidal self-injury disorder: A review of the empirical literature. Child and Adolescent Psychiatry and Mental Health, 9(1), 1-13.
[3] Whitlock, J., Minton, R., Babington, P., & Ernhout, C. (2015). The relationship between non-suicidal self-injury and suicide. The Information Brief Series, Cornell Research Program on Self-Injury and Recovery. Cornell University, Ithaca, NY.

Sex
Self-inflicted injury-related hospital discharges were higher among females (7,068) than males (4,361). Females experienced a rate of about 50 percent more self-inflicted injuries when compared to males.

Methods of Self-Injury
Poisoning by drugs was the main method of self-inflicted injury in 2021, accounting for 52.0 percent of all self-inflicted injury-related hospital discharges.

Race/Ethnicity
Among racial/ethnic groups, people identifying as American Indian/Alaska Native experienced the highest age-adjusted rates of hospital discharges due to self-inflicted injury (234.2 per 100,000 population).

Health Care Costs
Health care cost analysis of self-inflicted injury during 2021 shows the economic burden of these hospitalizations on the Arizona health care system. In 2021, self-inflicted injury- related hospital discharge costs were estimated at $298 million, an increase of almost two-fold from $162 million in 2011.

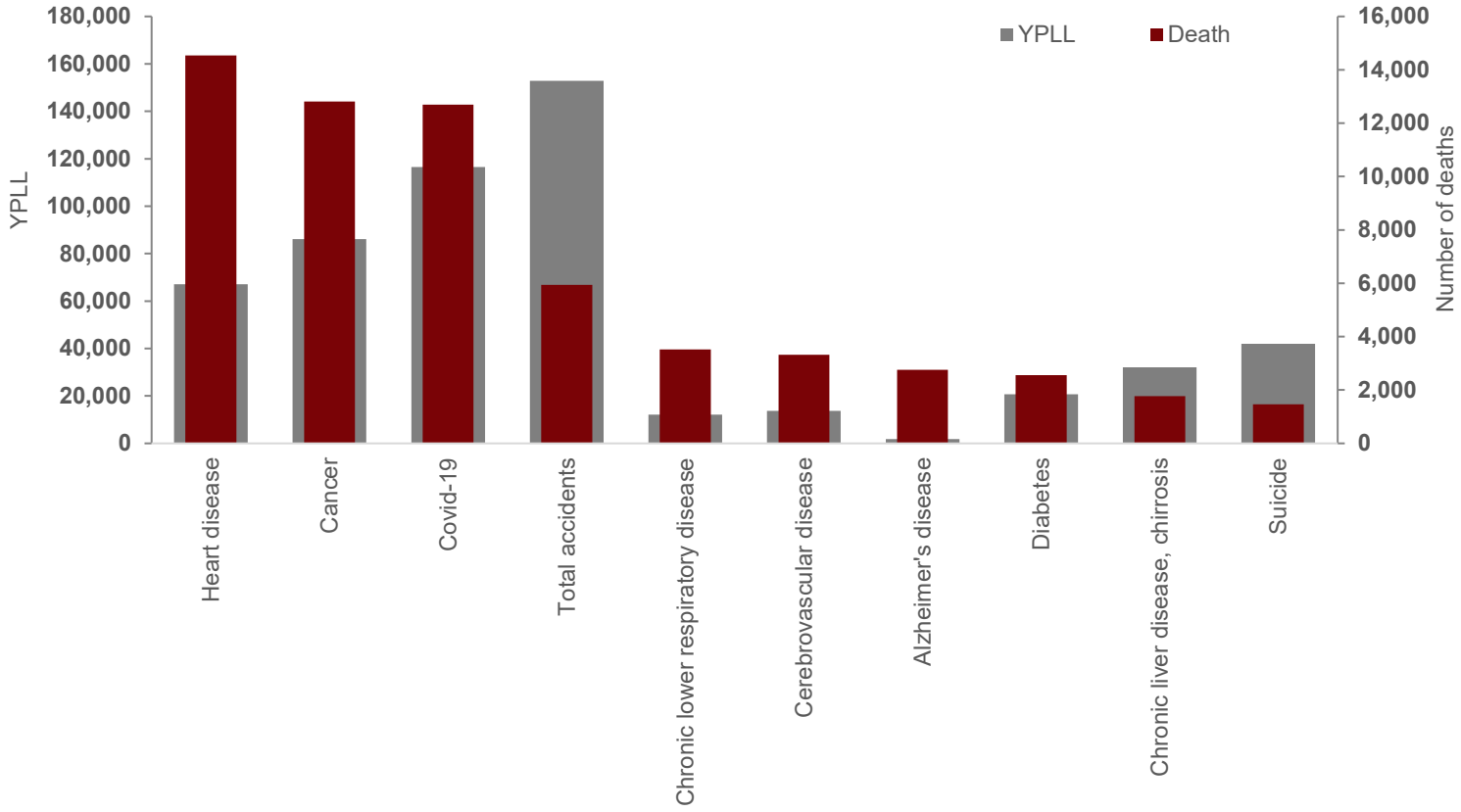
Analysis of Suicide Deaths in Arizona, 2021

Suicide as Compared to Other Causes of Death

Ranking causes of death is essential in understanding the magnitude of disease/injury in a population. Years of potential life lost (YPLL), a measure of premature mortality, estimates the average years a person would have lived if they had not died prematurely. Reducing YPLL is an important public health goal since it emphasizes the preventable death of younger persons.

In 2021, of the 81,482 deaths among Arizona residents, 1,469 deaths or 1.9 percent of all deaths were due to suicide. Suicide ranked 10th among the leading causes of death, but contributed substantially to premature mortality with a total YPLL of 41,980, behind total accidents (152,827 YPLL), COVID-19 (116,498 YPLL), cancer (86,084 YPLL), and heart disease (67,034 YPLL) (Figure 1A).

Figure 1A: Top 10 leading causes of death and years of potential life lost (YPLL) before age 75 among Arizona residents, 2021



Notes: Leading causes of death ranking is based on the number of deaths;± The COVID-19 data collection began in mid-March 2020.

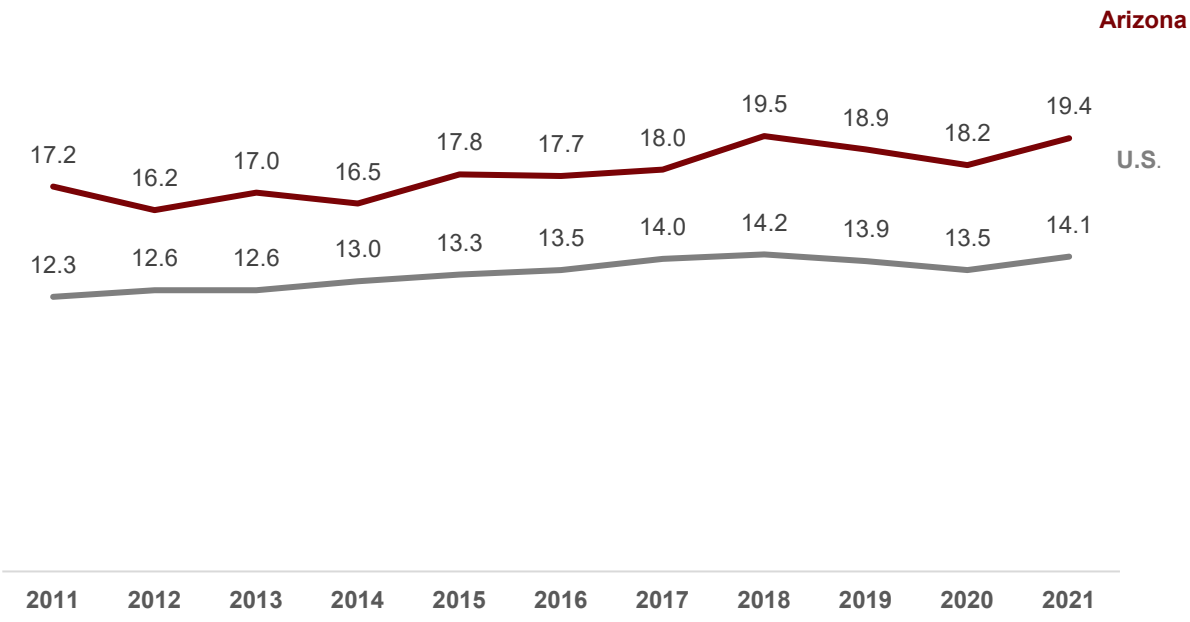
Suicide Mortality Rates

Suicide mortality has been on the rise both statewide and nationally. From 2011 to 2021, the overall U.S. rate increased 14.6 percent, while the Arizona rate also increased at 12.8 percent during the same period (Figure 2A).

Unfortunately, Arizona's suicide mortality rates have generally been higher than national rates. In 2021, the suicide mortality rate among Arizona residents (19.4 suicides per 100,000 population) was 37.6 percent higher than the national rate (14.1 suicides per 100,000 population).

Arizona had seen a decrease in suicide mortality rates from 2018 (19.5 suicides per 100,000 population) to 2020 (18.2 suicides per 100,000 population), with an increase seen in 2021 (19.4 suicides per 100,000 population). Similarly, nationally there was a decrease from a high of 14.2 suicides per 100,000 population in 2018 to 13.5 suicides per 100,000 population in 2020, with an increase to 14.1 suicides per 100,000 population in 2021. Detailed information on number of suicides and mortality rates during the period 2011-2021 is provided in Table 1 (Appendix).

Figure 2A: Suicide mortality rates[a] for the United States and Arizona, 2011-2021



Note: [a] Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

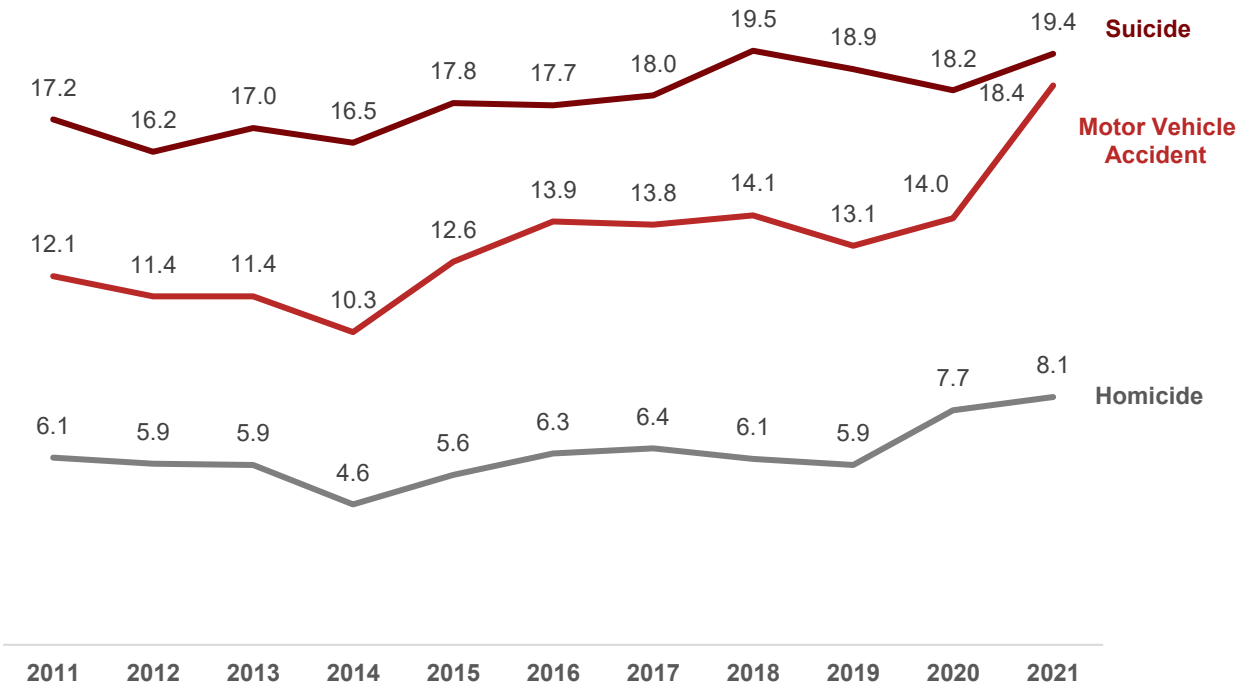
In 2021, more Arizonans died by suicide (n=1,469) than motor vehicle crashes (n=1,359) and homicides (n=561), making suicide the leading cause of violent death in Arizona (Figure 3A).

Given the strides made in prevention of motor vehicle fatalities, the suicide mortality rate surpassed the rate of motor vehicle traffic deaths in 2008, with this trend continuing since.

In 2021, 19.4 per 100,000 Arizonans died by suicide, compared to 18.4 per 100,000 population

who died in a motor vehicle crash, and 8.1 per 100,000 population who died from homicide.

Figure 3A: Mortality rates[a] for suicide, motor vehicle accident, and homicide: Arizona, 2011-2021



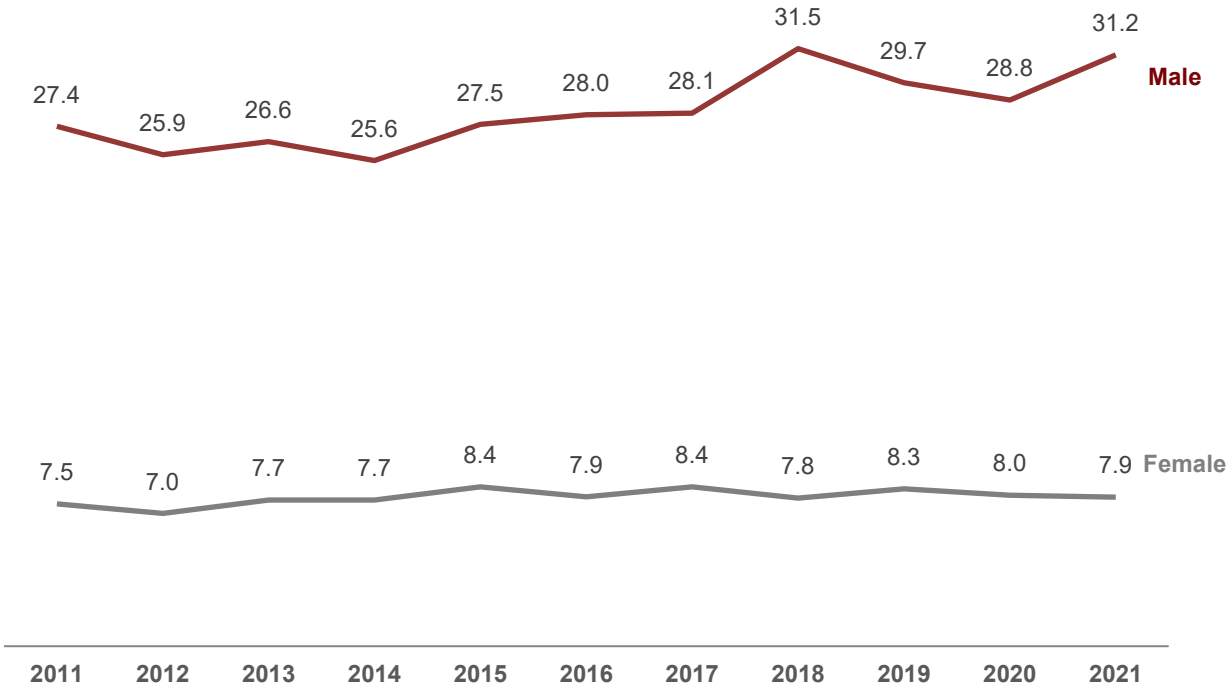
Note: [a] Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

Suicide Deaths by Sex

Historically, suicide mortality in Arizona, as with the United States, has been consistently higher among males than females. From 2011 to 2021, on average, for each female suicide, there were four (4) male suicides.

In 2021, there were more suicides among males (1,178) than females (291), making suicide the 8th leading cause of death among males and the 16th leading cause among females. During the same year, the male suicide mortality rate (31.2 suicides per 100,000 population) was 3.9 times higher than the female rate (7.9 suicides per 100,000 population). Detailed information on suicide deaths by sex is provided in Table 2 (Appendix) (Figure 4A).

Figure 4A: Mortality rates[a] for suicide by sex and year: Arizona, 2021



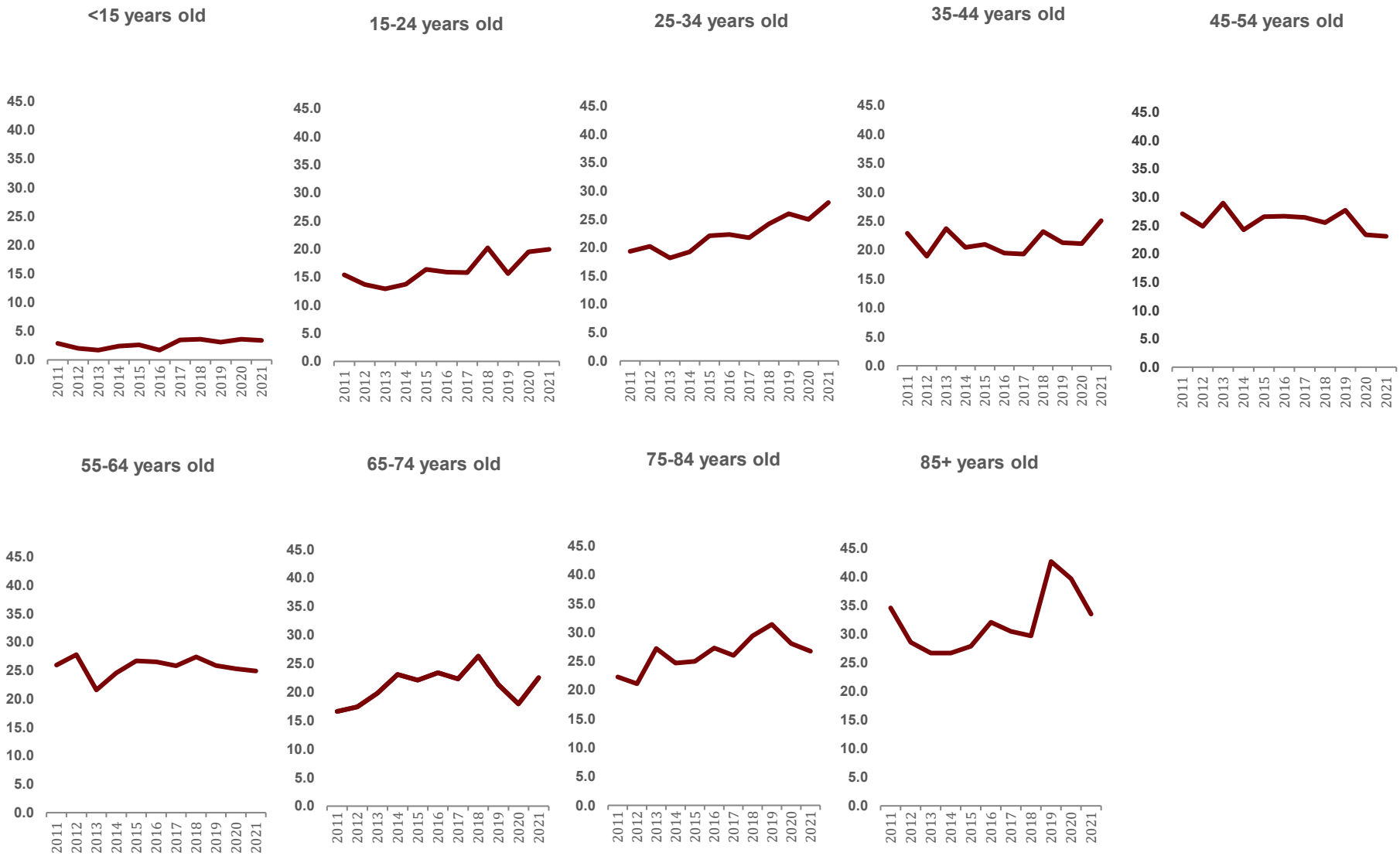
Note: [a] Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

Suicide Deaths by Age

From 2011 to 2021, suicide mortality rates rose for most age groups, except for residents who are 45-54, 55-64, and 85+ years old. Adults 25-34 saw a 1.5-fold increase in suicide mortality rate from 2011 to 2021, followed closely by adults aged 65-74 (1.4 fold) and then youth aged 15-24 (1.3 fold). All the remaining groups experienced an increase of 1.2-fold or less (Figure 5A).

In 2021, Arizona residents aged 10-14 (<15) years had the lowest suicide mortality rate (3.4 suicides per 100,000 population), while residents aged 85 years and older had the highest suicide mortality rate (33.5 suicides per 100,000 population). Detailed information on suicide deaths by age group is provided in Table 1 (Appendix).

Figure 5A: Mortality rates[a] for suicide by age group: Arizona, 2011-2021



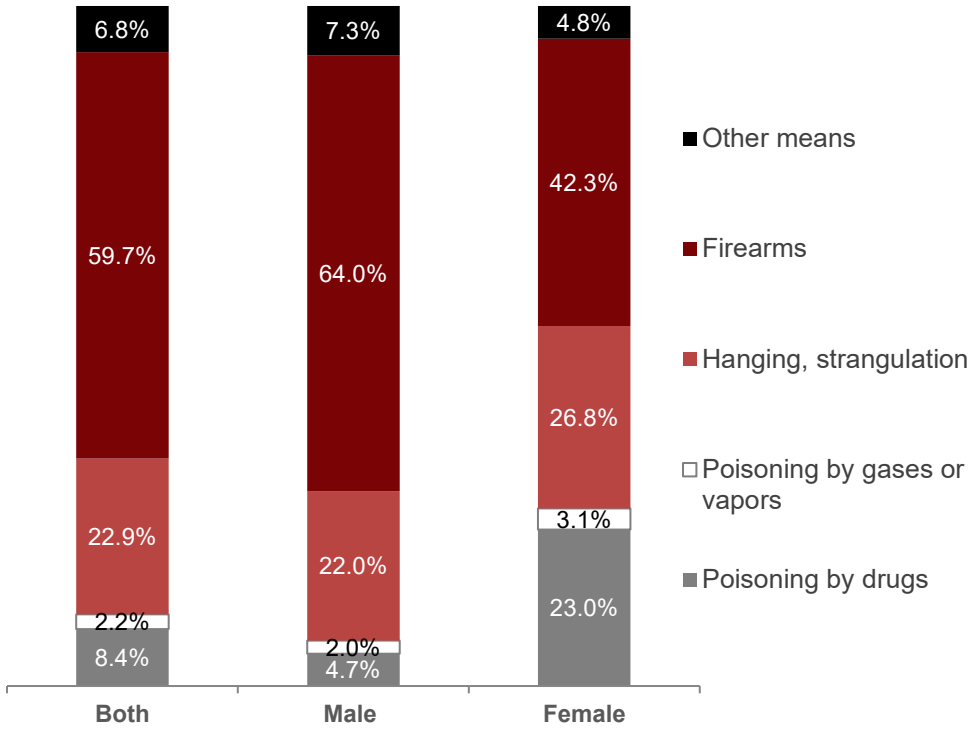
Note: a Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard; *<15 includes 10-14 years

Suicide Deaths by Method

In 2021, firearms, hanging/strangulation, and poisoning by drugs were the most common methods of suicide in Arizona. Of the 1,469 suicide deaths reported among all Arizona residents, 59.7 percent involved the use of a firearm (n=878) compared to 22.9 percent by means of strangulation and/or hanging (n=337), and 8.4 percent by means of poisoning by drugs (n=123) (Figure 6A).

In 2021, firearms were the leading method of suicide among males and females in Arizona. However, the use of firearms was greater among males (64.0 percent) than females (42.3 percent). There are significant differences in the other common methods of suicide. Females more frequently use methods such as poisoning by drugs (23.0 percent) and hanging and/or strangulation (26.8 percent) than males (4.7 percent and 22.0 percent).

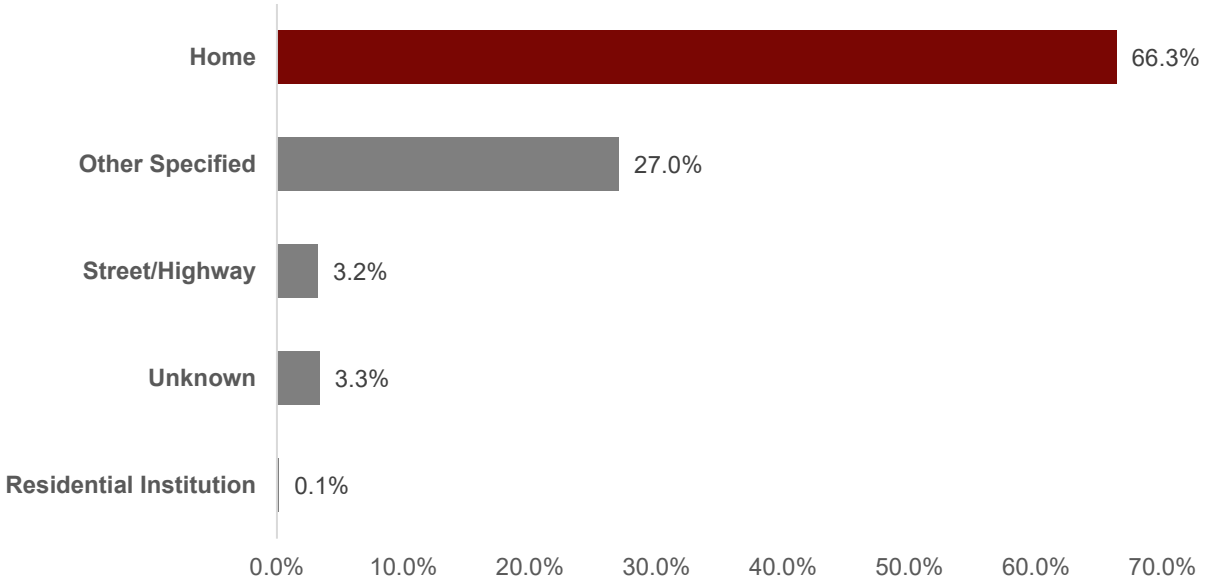
Figure 6A: Methods of suicide mortality by sex: Arizona, 2021



Suicide Deaths by Place of Occurrence

In 2021, of the 1,469 suicide deaths recorded among Arizona residents, 66.3 percent occurred in a home. Approximately 1 out of 4 suicide fatalities were classified under the category "Other specified," which includes areas such as farms, fields, sports and athletics spaces, and schools (Figure 7A).

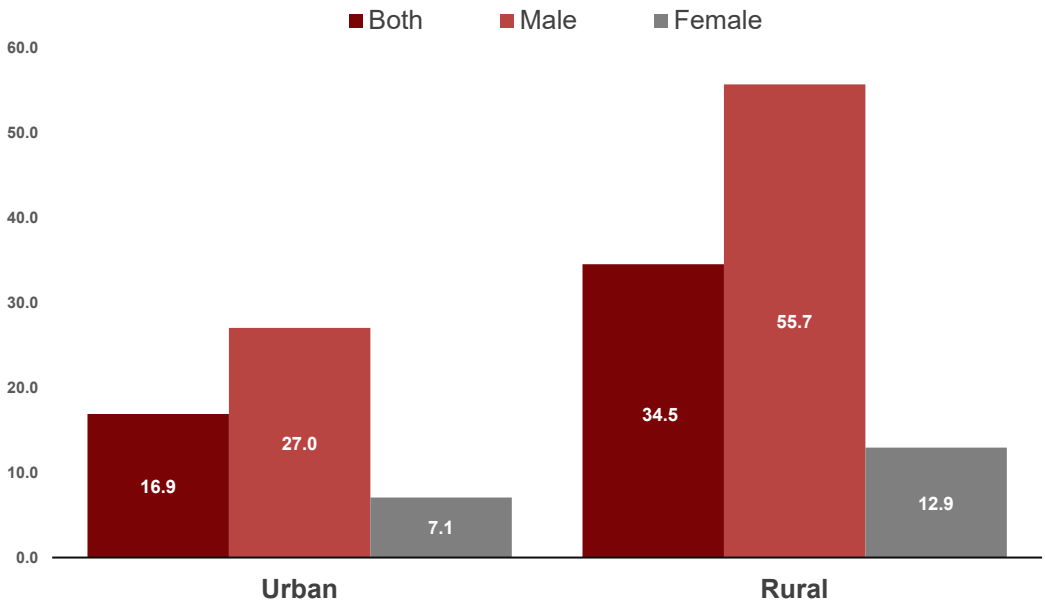
Figure 7A: Suicide deaths by place of occurrence: Arizona, 2021



Suicide Deaths by Urban/Rural Location

In Arizona, suicide mortality rates are generally higher in rural settings than in urban areas. In 2021, residents in rural areas died of suicide at higher rates (34.5 suicides per 100,000 population), more than two times greater than residents in urban areas (16.9 suicides per 100,000 population). Across the board, males in rural areas experienced the highest rate of suicide mortality (55.7 suicides per 100,000 population), while females from urban areas had the lowest suicide mortality rates (7.1 suicides per 100,000 population) (Figure 8A).

Figure 8A: Mortality rates[a] of suicide by urban/rural areas[b]: Arizona, 2021

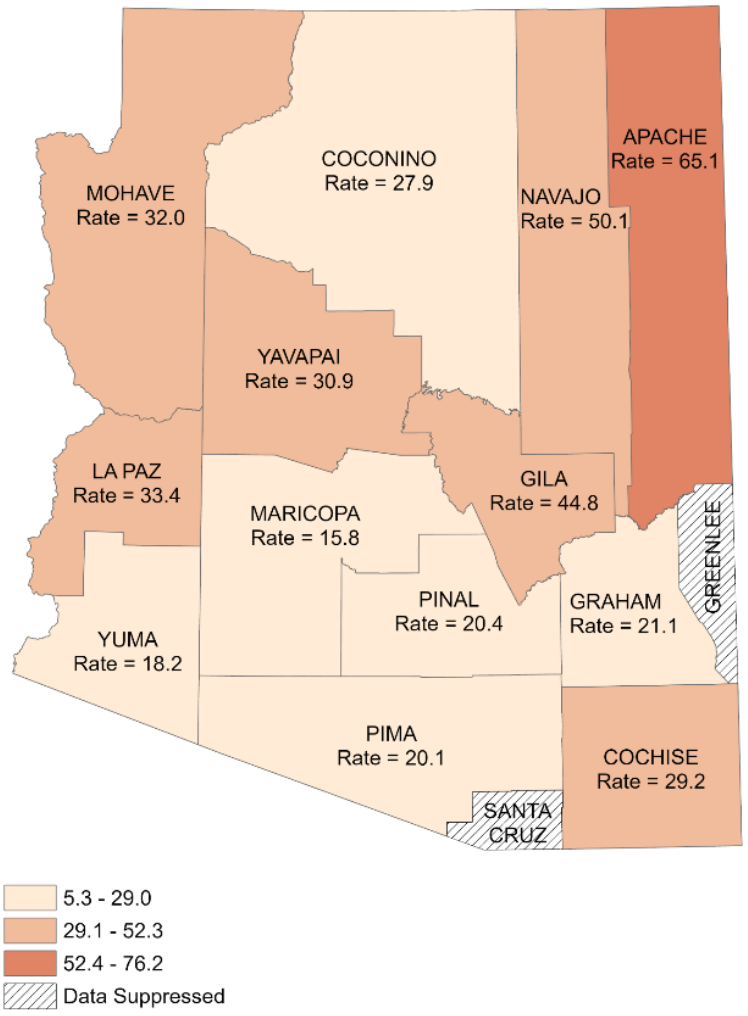


Note: [a]Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.
[b]Urban = Maricopa, Pima, Pinal, and Yuma counties; the remaining counties comprise Arizona's rural areas

Suicide Deaths by County of Residence and Sex

Suicide mortality rates vary greatly between counties in Arizona. In 2021, 2 out of 15 counties, Maricopa and Yuma, recorded suicide mortality rates lower than the state rate of 19.4 suicides per 100,000 population. Apache County recorded the highest suicide mortality rate (65.1 suicides per 100,000 population) compared to the rest of the state. Residents living in Greenlee and Santa Cruz counties had too few counts (<6) to create a reliable rate for this stratification, and therefore were excluded and suppressed to protect individuals' privacy (Figure 9A).

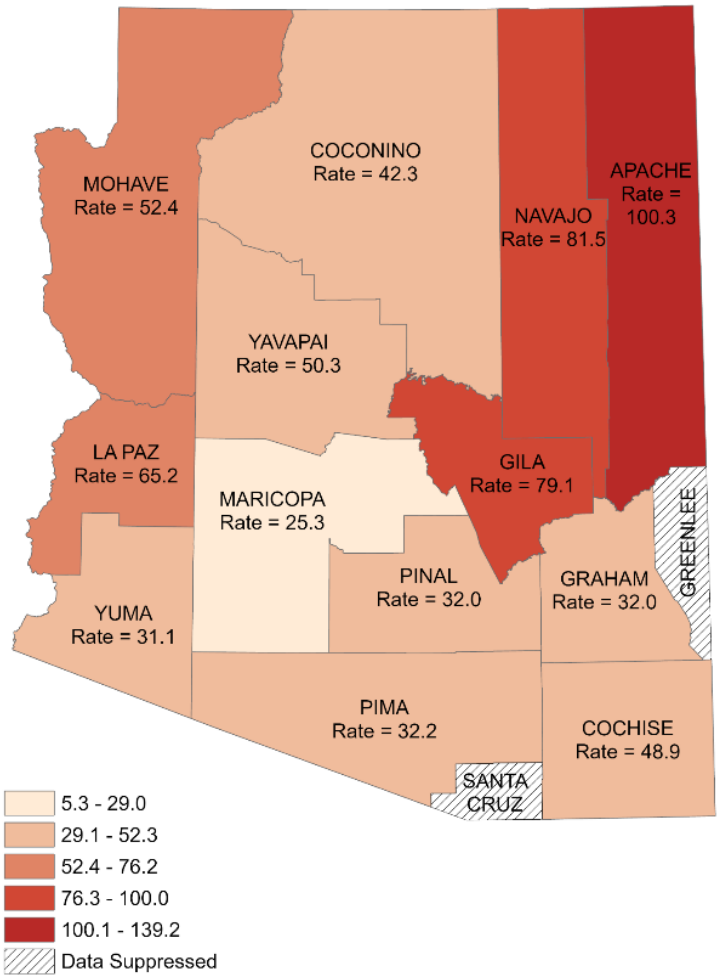
Figure 9A: Mortality rates[a] of suicide by county of residence: Arizona, 2021



Note: [a]Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

In 2021, the suicide mortality rates among males were highest in Apache County (100.3 suicides per 100,000 population), Navajo County (81.5 suicides per 100,000 population), Gila County (79.1 suicides per 100,000 population), La Paz County (65.2 suicides per 100,000 population), and Mohave County (52.4 suicides per 100,000 population). Male residents of Greenlee and Santa Cruz counties had too few counts (<6) to create a reliable rate for this stratification, and therefore were excluded and suppressed to protect individuals' privacy (Figure 10A).

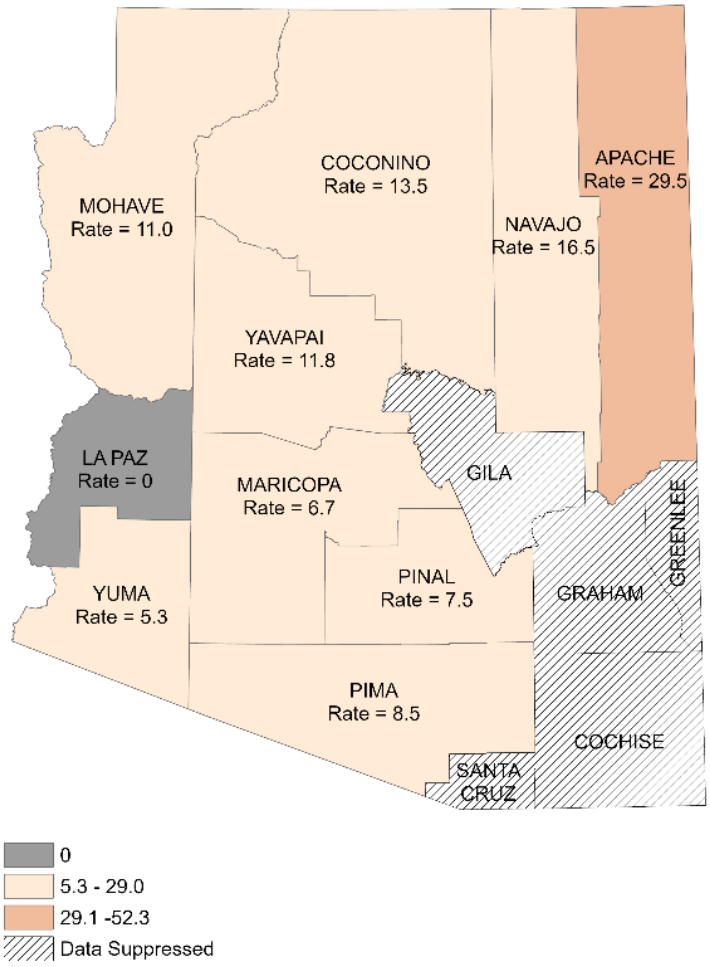
Figure 10A: Mortality rates[a] of male suicide by county of residence: Arizona, 2021



Note: [a]Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

In 2021, the suicide mortality rates among females were the highest in Apache County (29.5 suicides per 100,000 population), Navajo County (16.5 suicides per 100,000 population), and Coconino County (13.5 suicides per 100,000 population). Residents living in Cochise, Gila, Graham, Greenlee, and Santa Cruz counties had too few counts (<6) to create a reliable rate for this stratification, and therefore were excluded and suppressed to protect individuals' privacy (Figure 11A).

Figure 11A. Mortality rates[a] of female suicide by county of residence: Arizona, 2021



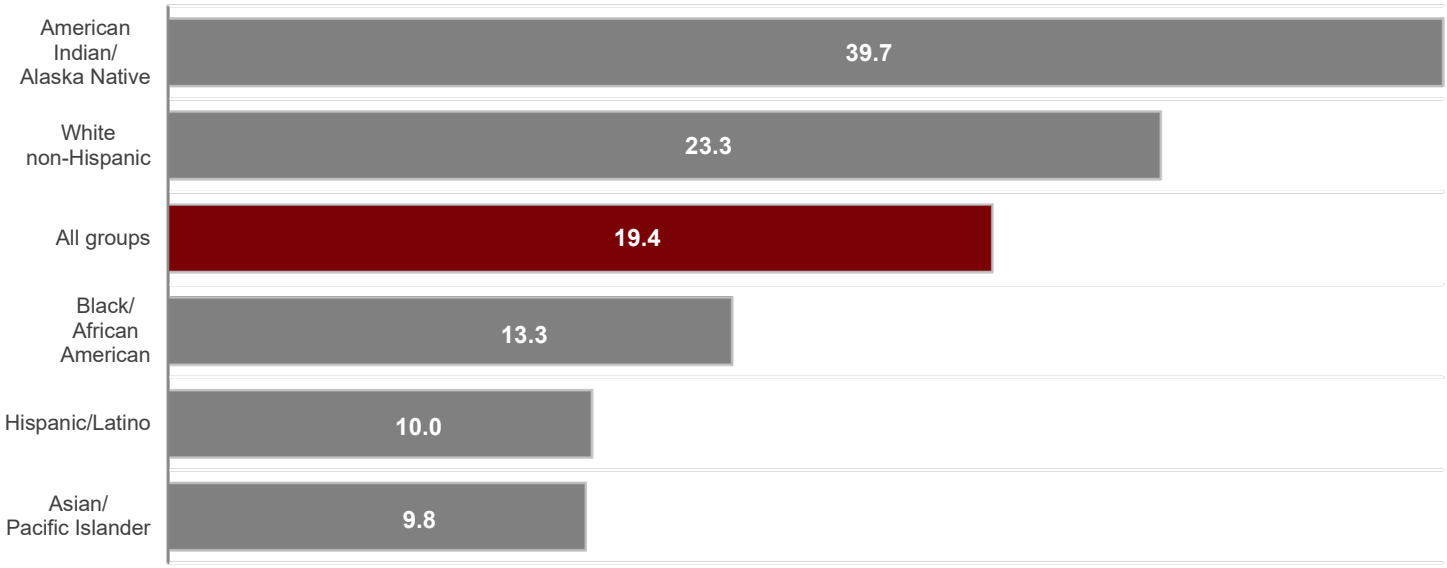
Note: [a]Number of deaths per 100,000 population age-adjusted to the 2000 U.S.

Suicide Deaths by Race/Ethnicity

This section reports on suicide deaths by racial/ethnic groups in Arizona and also, in an effort to better understand the disparities described, examines demographic characteristics within groups. As in mortality from many causes, disparities between racial/ethnic categories are apparent in suicide mortality.

In 2021, the suicide mortality rate for American Indian/Alaska Native individuals (39.7 suicides per 100,000 population) was the highest of any racial and ethnic group in Arizona, followed by White non-Hispanic adults, with a suicide mortality rate of 23.3 suicides per 100,000 population. In contrast, Asian/Pacific Islander adults recorded the lowest suicide mortality rate (9.8 suicides per 100,000 population) (Figure 1B).

Figure 1B: Mortality rates[a] of suicide by race/ethnicity: Arizona, 2021



Note: [a]Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

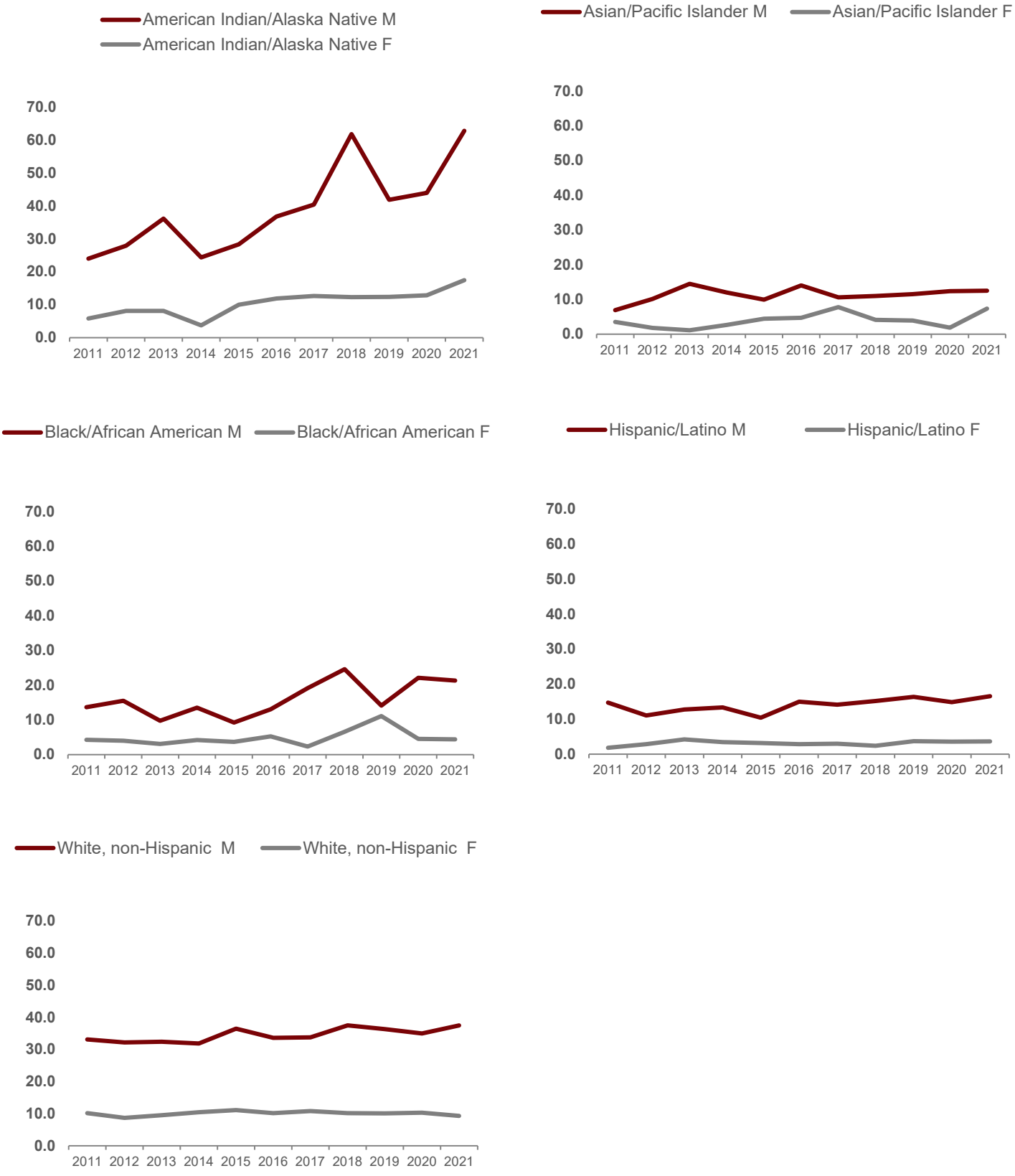
American Indian/Alaska Native adults, regardless of sex, have consistently experienced the highest suicide mortality rates compared to other racial/ethnic groups in Arizona. From 2016-2021, the highest suicide mortality rates were recorded among American Indian/Alaska Native males, with White non-Hispanic males having the second highest rates (Figure 2B).

Over the entire decade (2011-2021), suicide mortality rates for American Indian/Alaska Native adults increased by approximately 162 percent among males, and 202 percent among females.

In general, between 2011-2021, suicide mortality rates have been rising among most racial/ethnic groups, and increases were observed for both males and females, with the exception of White non-Hispanic females.

Further details on the historical suicide counts and mortality rates by race/ethnicity and sex are provided in Table 2 and Table 3, respectively (Appendix).

Figure 2B: Mortality rates[a] of suicide by race/ethnicity and sex (M=Male, F=Female): Arizona, 2011-2021



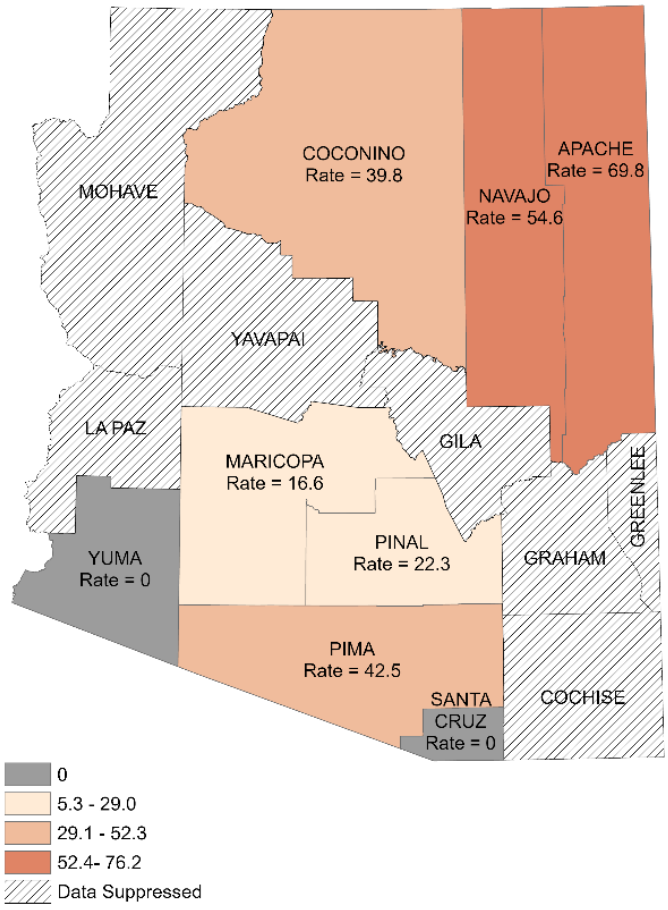
Note: [a]Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

Suicide Deaths Among American Indian/Alaska Native Adults by County of Residence

Geographic distribution is a particularly important factor to analyze among people who identify as American Indian/Alaska Native to understand the magnitude and variations of the issue among this racial/ethnic group.

In 2021, people who identify as American Indian/Alaska Native and live in Apache County had the highest mortality rate of suicide, at 69.8 suicides per 100,000 population, followed by those residing in Navajo County (54.6 suicides per 100,000 population) (Figure 3B).

Figure 3B: Mortality rates[a] of suicide among American Indian/Alaska Natives by county of residence: Arizona, 2021



Note: [a]Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

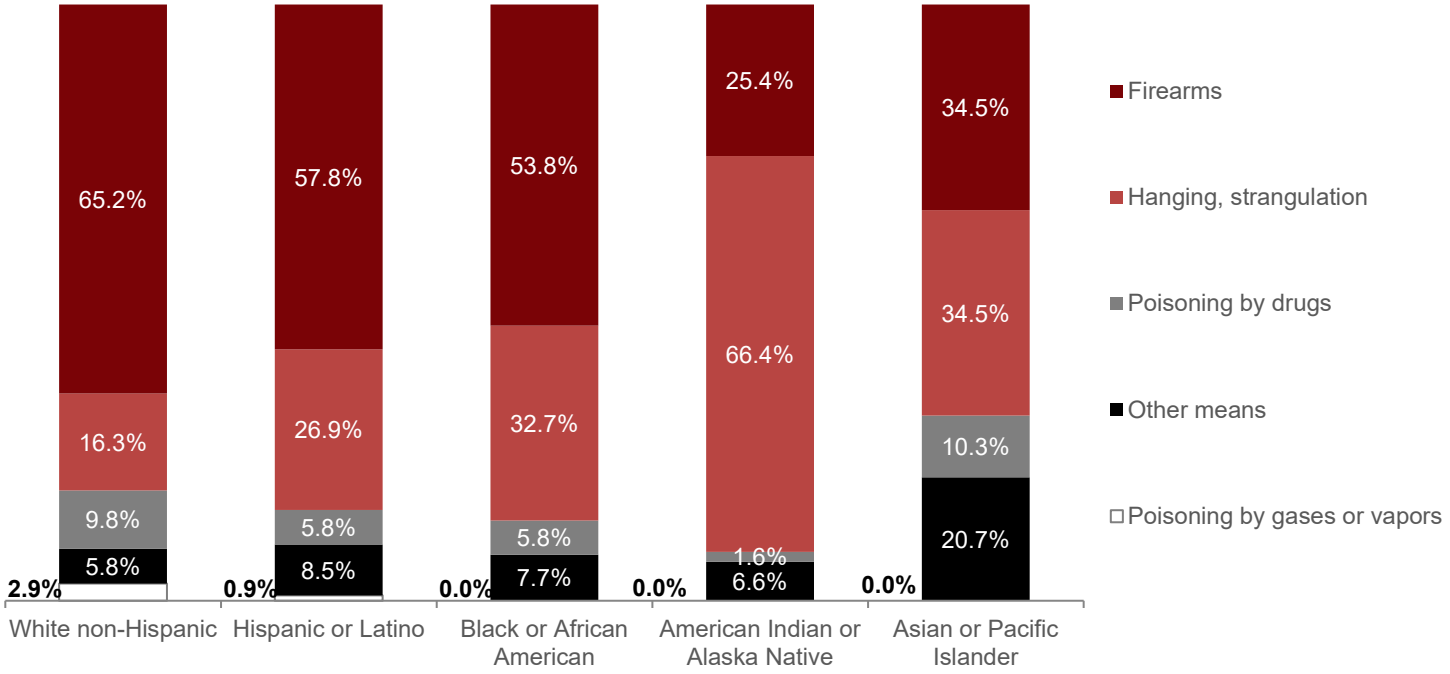
Suicide Deaths by Method and Race/Ethnicity

In 2021, of all the suicides recorded, most involved the use of firearms (59.7 percent) or suffocation (hanging or strangulation) (22.9 percent).

Firearms were the most common method of suicide among all racial/ethnic groups except American Indian/Alaska Native adults, where strangulation was the leading method of suicide.

Asian/Pacific Islander adults account for the greatest proportion of suicide deaths where poisoning by drugs was involved (Figure 4B).

Figure 4B: Method of suicide mortality by race/ethnicity: Arizona, 2021



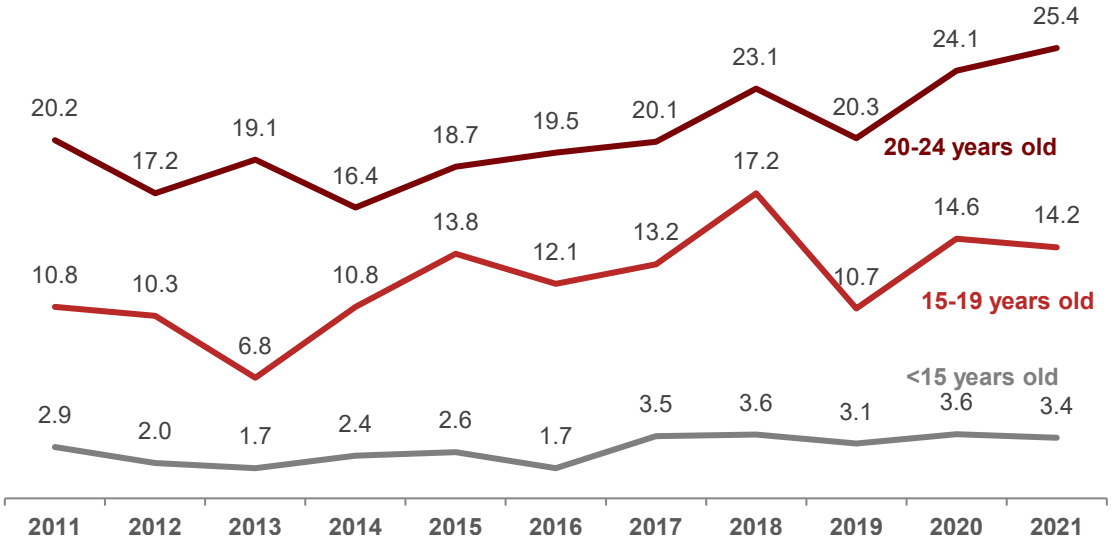
Suicide Deaths Among Youth

From 2011-2021, residents aged 20-24 years had higher rates of suicide than their younger counterparts.

In 2021, the risk of suicide among Arizonans aged 20-24 years was 7.5 times greater than the suicide mortality rate of those aged <15 years, but only 1.8 times higher than Arizonans aged 15-19 years (Figure 1C).

Compared to Arizonans aged 20 years or older, suicide mortality rates of those under 20 years of age remained the lowest.

Figure 1C: Mortality rates[a] of suicide among youth aged 10-24 years: Arizona, 2011-2021



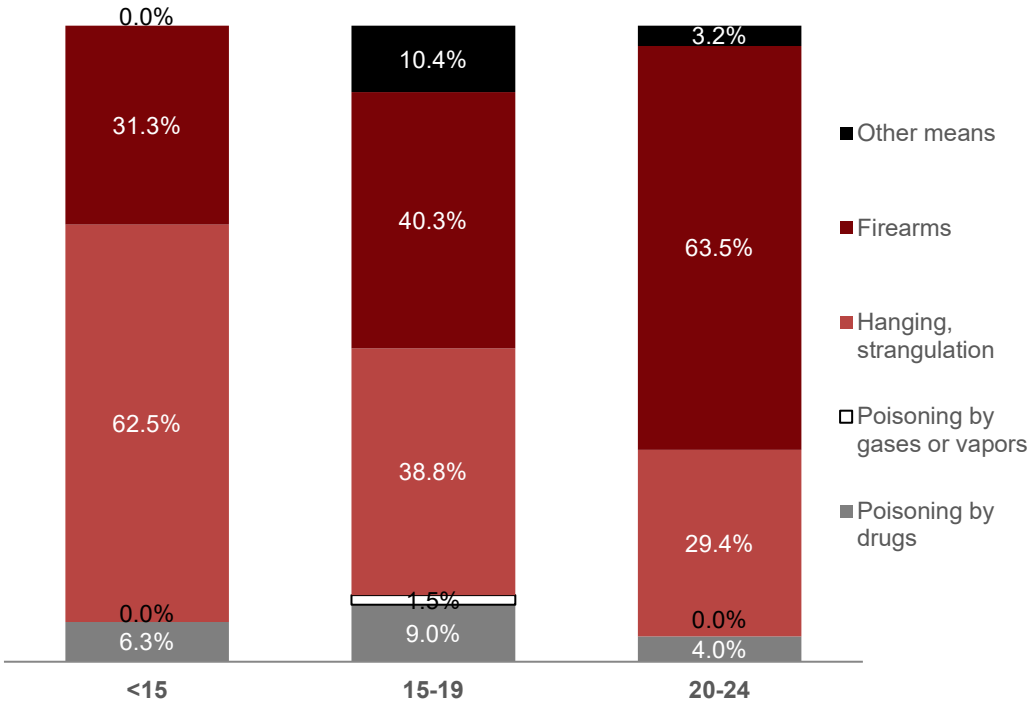
Note: [a]Number of deaths per 100,000 population in specified age group; <15 years old includes 10-14 years.

Methods of suicide among youth in Arizona differ by age group.

In 2021, most suicides (62.5 percent) among Arizona children under age 15 occurred by means of hanging and/or strangulation, while 31.3 percent occurred by means of firearms (Figure 2C).

Among youth aged 15-19 years (40.3 percent) and 20-24 years (63.5 percent), firearms were the leading method of suicide.

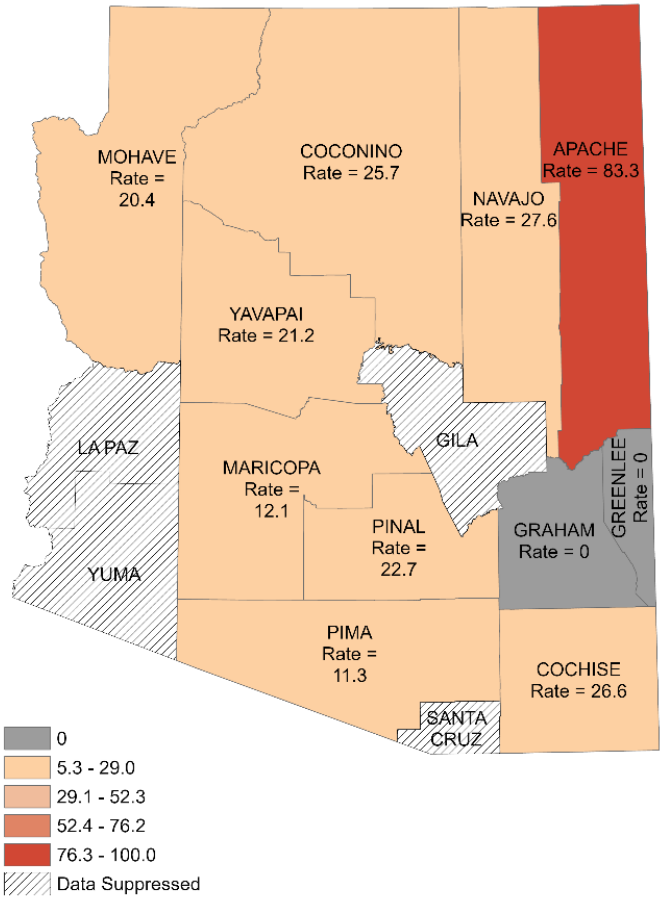
Figure 2C: Suicide mortality among youth aged 10-24 years, by age group and method: Arizona, 2021



Detailed analysis of youth suicide in 2021 demonstrates large differences of suicide mortality risk by county of residence.

In 2021, the risk of suicide mortality among Arizona youth was disproportionately higher in Apache County than in any other county in the state. The rate of suicide deaths among young Arizonans 10-24 years of age was highest in Apache County (83.3 suicides per 100,000 population) followed by Navajo County (27.6 suicides per 100,000 population) (Figure 3C).

Figure 3C: Mortality rates[a] of suicide among youth aged 10-24 years by county of residence: Arizona, 2021

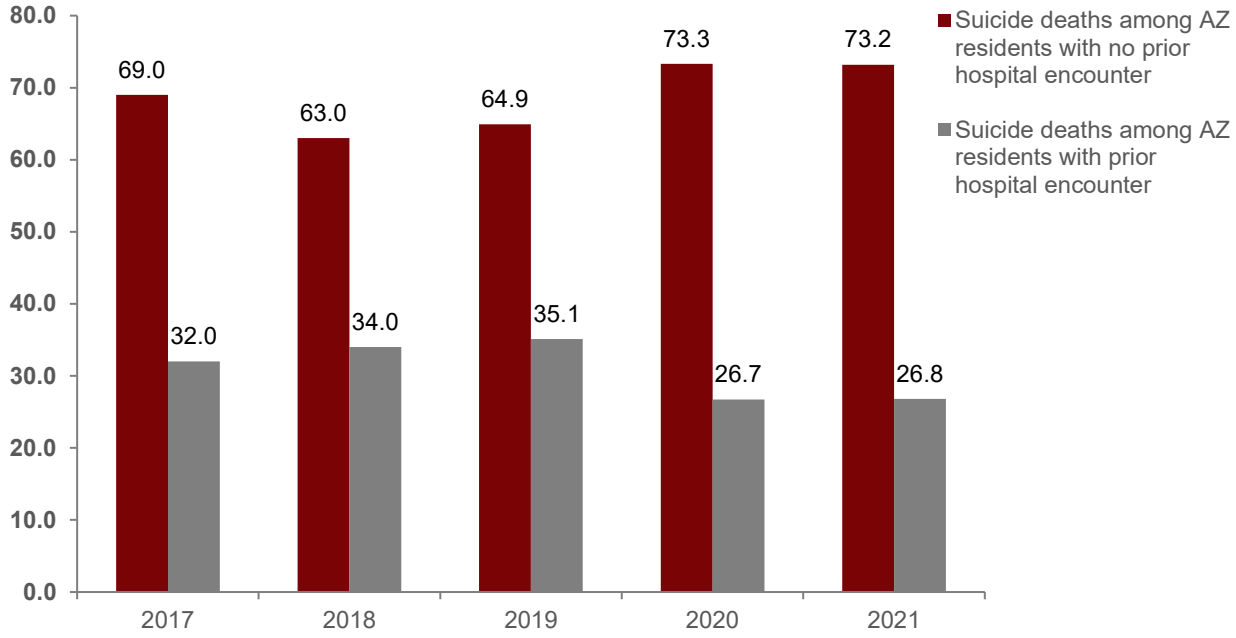


Note: [a]Number of deaths per 100,000 population

Suicide Deaths and Medical History

An analysis of the medical history of Arizona residents who died by suicide was conducted from 2017 to 2021. In each year during the period, the highest proportion of residents who died by suicide was observed among those with no prior hospital encounter in the past 6 months preceding death. These results may be linked to the limitations of the hospital discharge data (HDD). The HDD lacks information on patient's encounters to non-hospital providers such as physicians and ambulatory surgery. Because of this, morbidity burden may be underestimated. Further, only hospitals that operate under a license issued by the Arizona Department of Health Services are required to participate in the discharge reporting system. Thus, the HDD may be incomplete due to non-inclusion in the data collection of Veterans Affairs hospitals, Department of Defense healthcare services, and tribal medical facilities (e.g. Indian Health Services). Noticeably, these non-reporting facilities are dedicated for use by the very groups with the highest suicide rates. The lack of discharge data from these medical facilities limits the significance of the current analysis (Figure 1D).

Figure 1D: Suicide mortality by recent medical history: Arizona, 2017-2021

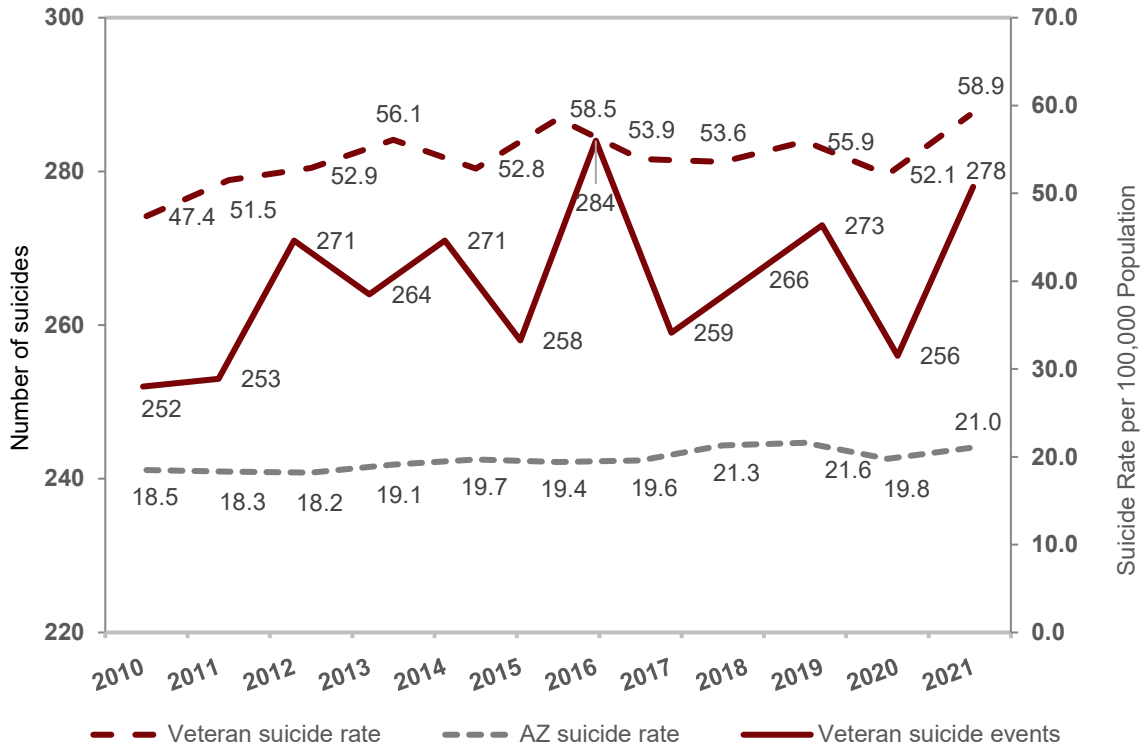


Suicide Among Veterans

Veteran suicide mortality rates in Arizona (including both residents and non-residents who died by suicide in Arizona) are higher when compared with those in the Arizona general population. Detailed information on suicide counts and rates during the period 2011-2021 is provided in Table 4 (Appendix).

In 2021, 278 veterans (includes residents and non-residents) died by suicide in Arizona. Between 2011 and 2021 there were 2,933 veteran (includes residents and non-residents) suicides recorded in Arizona. During the same period, the number of veteran suicides increased by 9.9 percent, while the suicide mortality rate among this group experienced a 24.3 percent increase (Figure 1E).

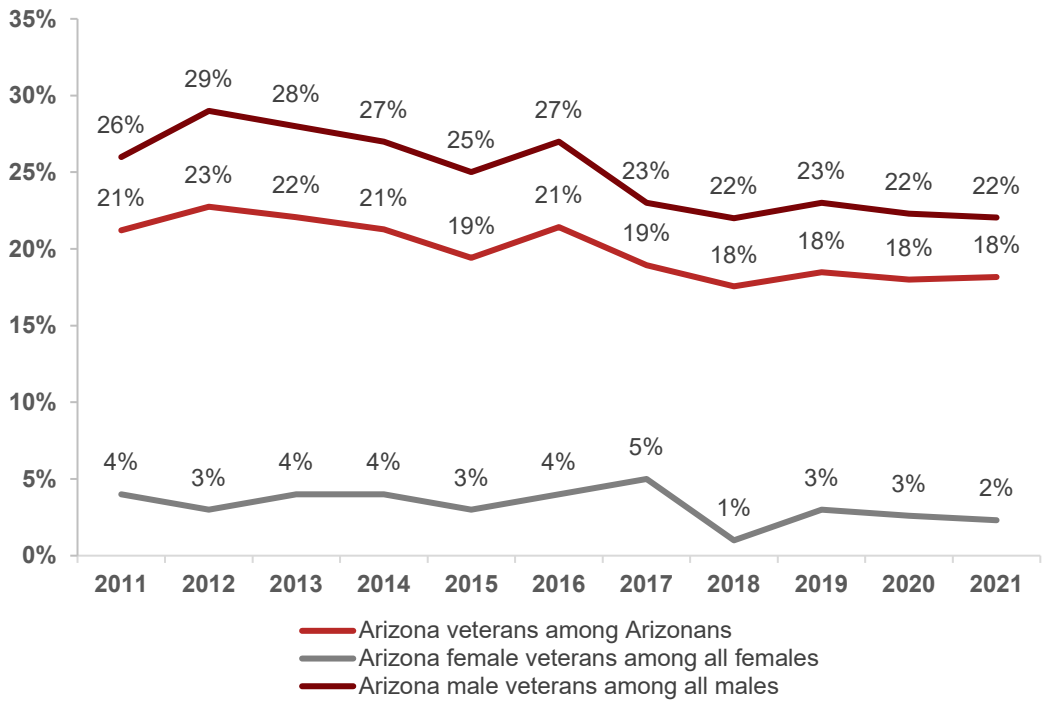
Figure 1E: Number and rates of veteran[a] suicides: Arizona: 2011-2021



Note: [a]Counts include both residents and non-residents.

While estimates of the Arizona veteran population differ, the proportion of veteran suicides among all Arizona suicides has declined from 21 percent in 2011 to 18 percent in 2021 According to the American Community Survey (U.S. Census Bureau), the population of Arizona veterans has declined from 536,449 (8.3 percent of Arizona population) in 2011 to 471,924 (6.5 percent of Arizona population) in 2021 (Figure 2E).

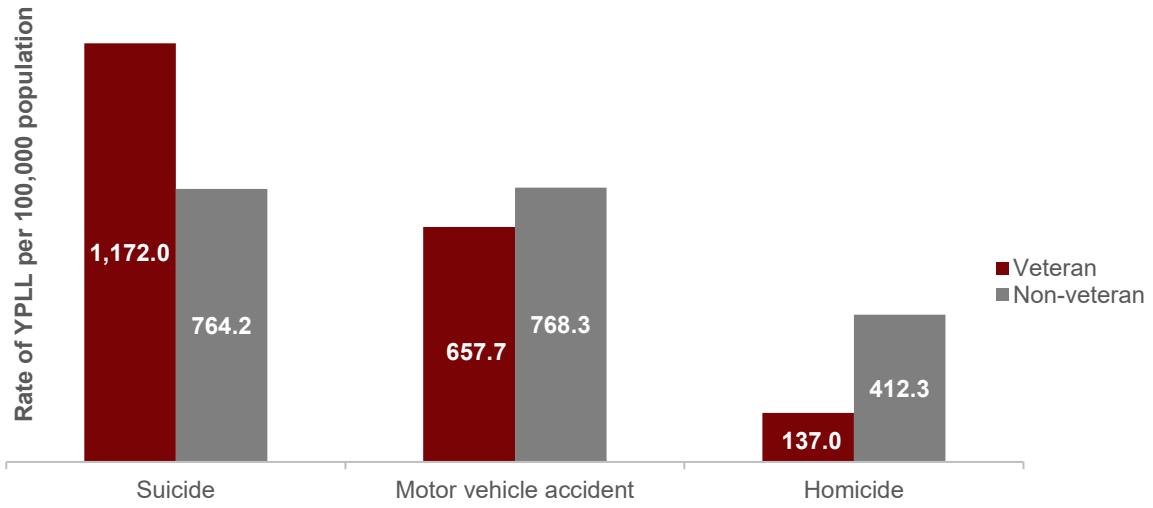
Figure 2E: Proportion of Arizona veteran suicides among all suicides occurring in Arizona, 2011-2021



Years of potential life lost (YPLL) measures the importance of premature mortality. Figure 3E shows the extent of premature death due to suicide by veteran status, in comparison to other violent deaths. In 2021, suicides accounted for more YPLL than motor vehicle accidents and homicides for veterans. For non-veterans, the YPLL were about equal for suicide and motor vehicle accidents, with both being almost double the YPLL for non-veteran homicides.

The 2021 premature mortality rate due to suicide (1,172.0 YPLL per 100,000 population for veterans 18 years or older) was 53.4 percent higher than that of non-veterans (764.2 YPLL per 100,000 population for non-veterans 18 years or older).

Figure 3E: Years of potential life lost due to suicide, motor vehicle accident, and homicide by veteran status: Arizona, 2021

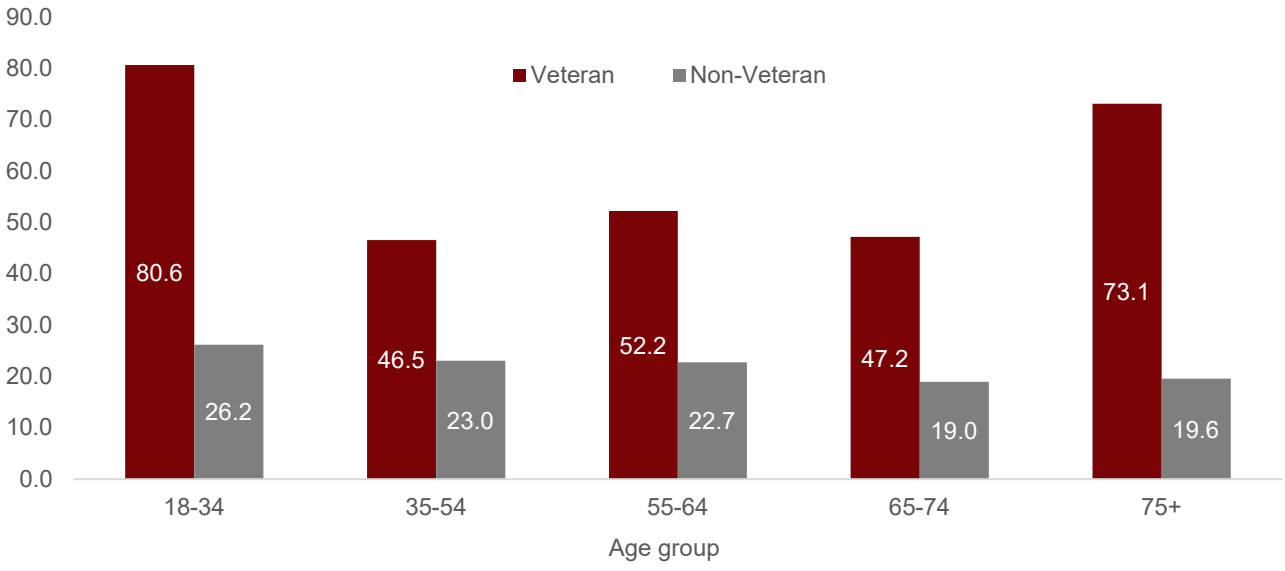


Across the life span, the risk of mortality due to suicide is generally higher among veterans than non-veterans.

In 2021, the risk of suicide was 3.1 times higher among Arizona resident veterans aged 18-34 years compared with the same age group among non-veterans. The risk of suicide was 2.0 higher for veterans aged 35-54 years, 2.3 among those aged 55-64 years, 2.5 among those aged 65-74 years and 3.7 among those aged 75 years or older (Figure 4E).

In 2021, veterans and non-veterans 18-34 years old had the highest risk of suicide (80.6 and 26.2 suicides per 100,000 population).

Figure 4E: Mortality rates[a] for suicide by veteran status: Arizona, 2021

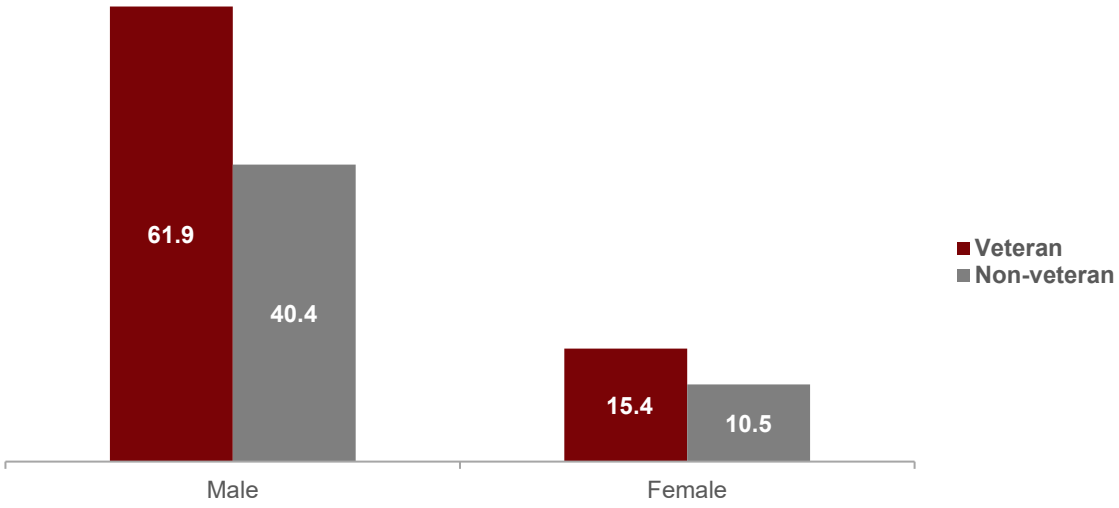


Note: [a]Number of deaths per 100,000 population in a specified age group

Various analyses on sex disparities in suicide mortality show a higher mortality rate among males than females. Regardless of veteran status, both the veteran and non-veteran categories show a higher suicide mortality rate among males in Arizona.

In 2021, males recorded the highest percentage of all suicide fatalities, approximately 97.4 percent among veterans and 76.3 percent among non-veterans. Male veterans experienced higher mortality than male non-veterans. The suicide mortality rate for male veterans (61.9 suicides per 100,000 population) was 53.2 percent higher than that of their non-veteran counterparts (40.4 suicides per 100,000 population) (Figure 5E).

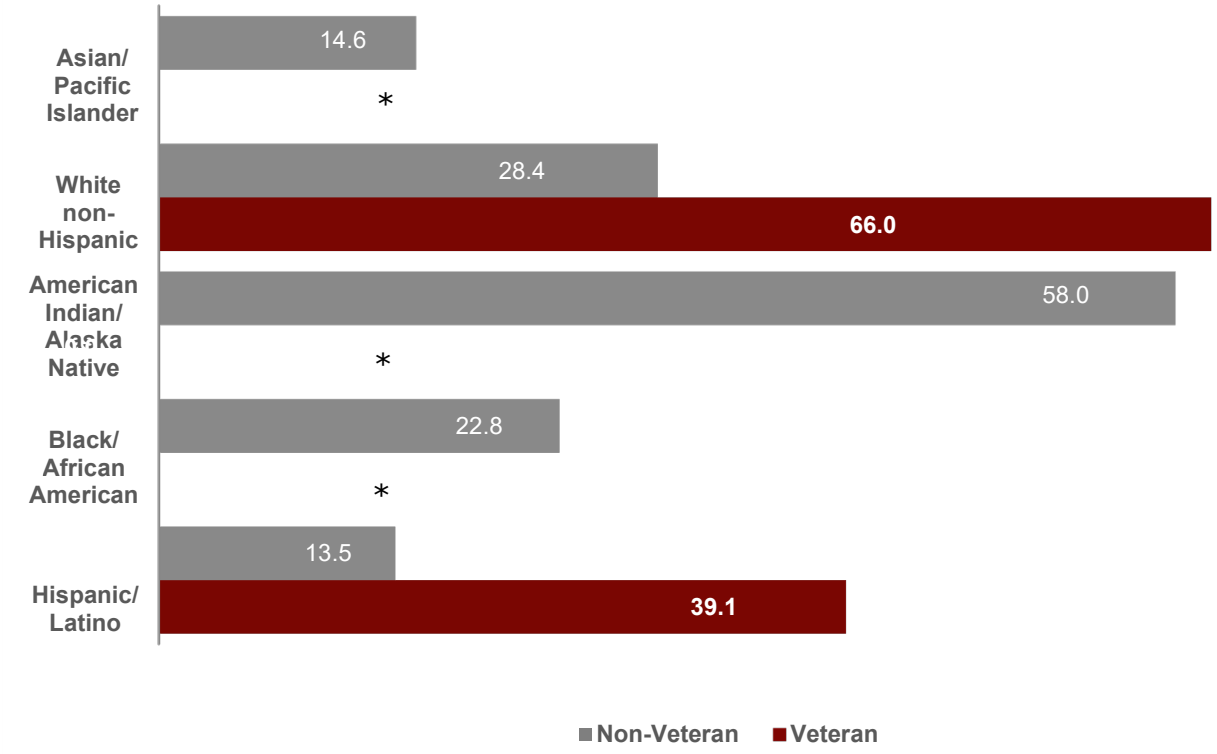
Figure 5E: Mortality rates[a] for suicide by sex and veteran status: Arizona, 2021



Note: [a]Number of deaths per 100,000 population aged 18 years or older.

Race/ethnicity analysis among Arizona resident veterans show consistent disparities in mortality rates. In 2021, across all the racial/ethnic groups, veterans had higher suicide mortality rates than non-veterans. Mortality rates for adults identifying as Asian/Pacific Islander, American Indian/Alaska Native, and Black/African American were <6 people and therefore suppressed for privacy protections (Figure 6E).

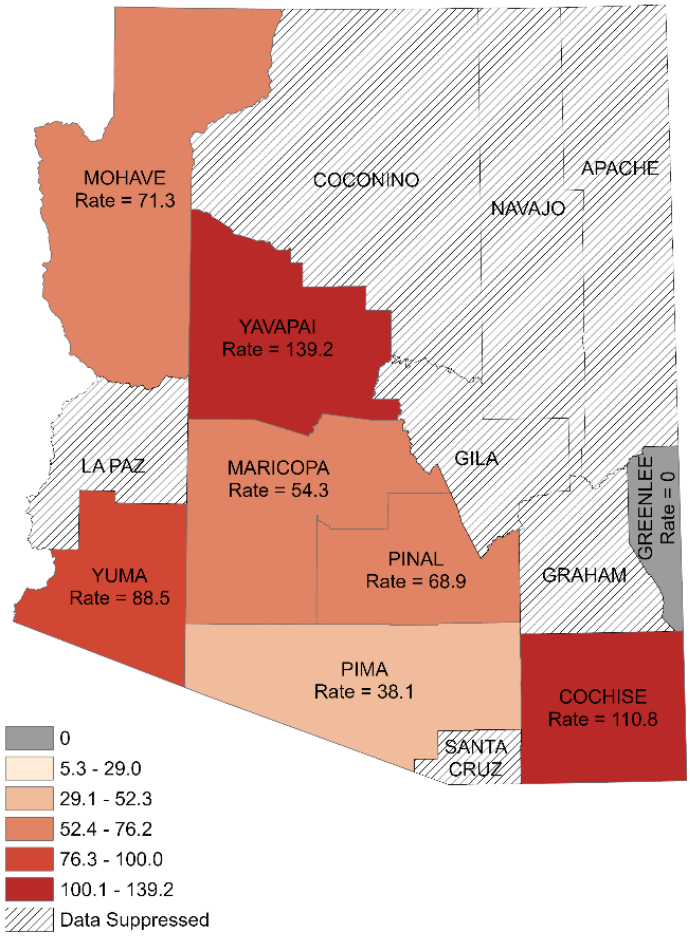
Figure 6E: Mortality rates[a] for suicide by race/ethnicity and veteran status: Arizona, 2021



Note: [a]Number of deaths per 100,000 population aged 18 years or older.
*Number <6, therefore data suppressed for privacy protections

Geographic distribution of suicide death among veterans revealed counties with the greatest social and economic costs associated with suicide mortality among veterans. Arizona veterans residing in Yavapai County had the highest rate of mortality due to suicide (139.2 suicides per 100,000 population) followed by those living in Cochise County (110.8 suicides per 100,000 population), Yuma County (88.5 suicides per 100,000 population), and Mohave County (71.3 suicides per 100,000 population). Residents living in Apache, Coconino, Gila, Graham, La Paz, Navajo, and Santa Cruz counties had too few counts (<6) to create a reliable rate for this stratification, and therefore were excluded and suppressed for privacy safeguards (Figure 7E).

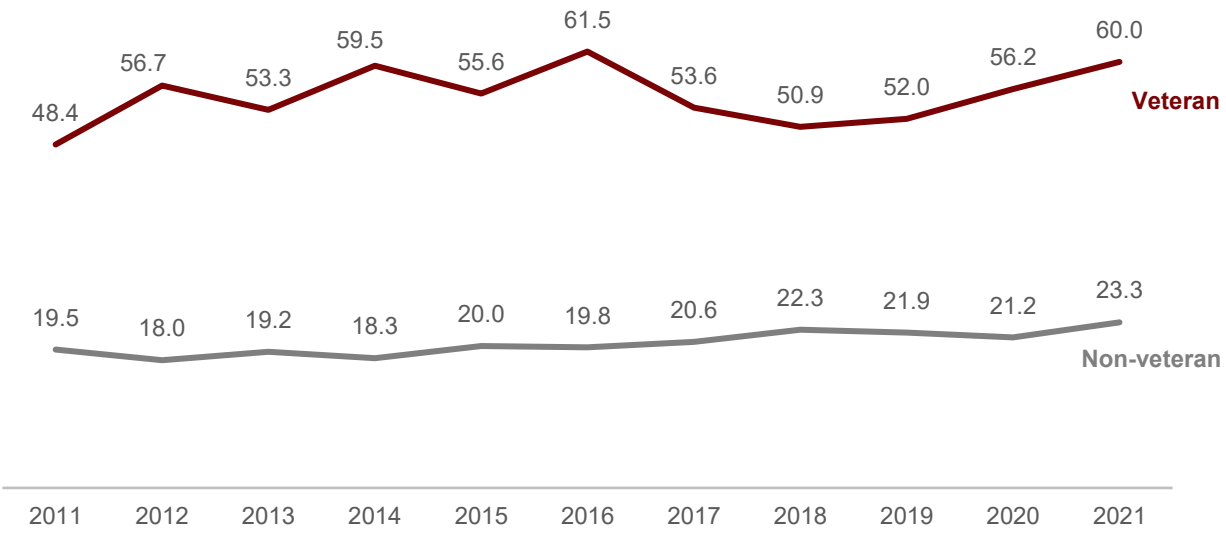
Figure 7E: Mortality rates[a] for suicide among Arizona resident veterans by county of residence: 2021



Note: [a]Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

Suicide mortality by veteran status among Arizona residents was examined to assess the extent of differences in suicide risk among veterans and non-veterans during the 11-year period from 2011-2021. In each year since 2011, the age-adjusted veteran suicide mortality rate was consistently two to three times higher than that of their non-veteran counterparts (Figure 8E).

Figure 8E: Mortality rates[a] for suicide by veteran status: Arizona, 2011-2021

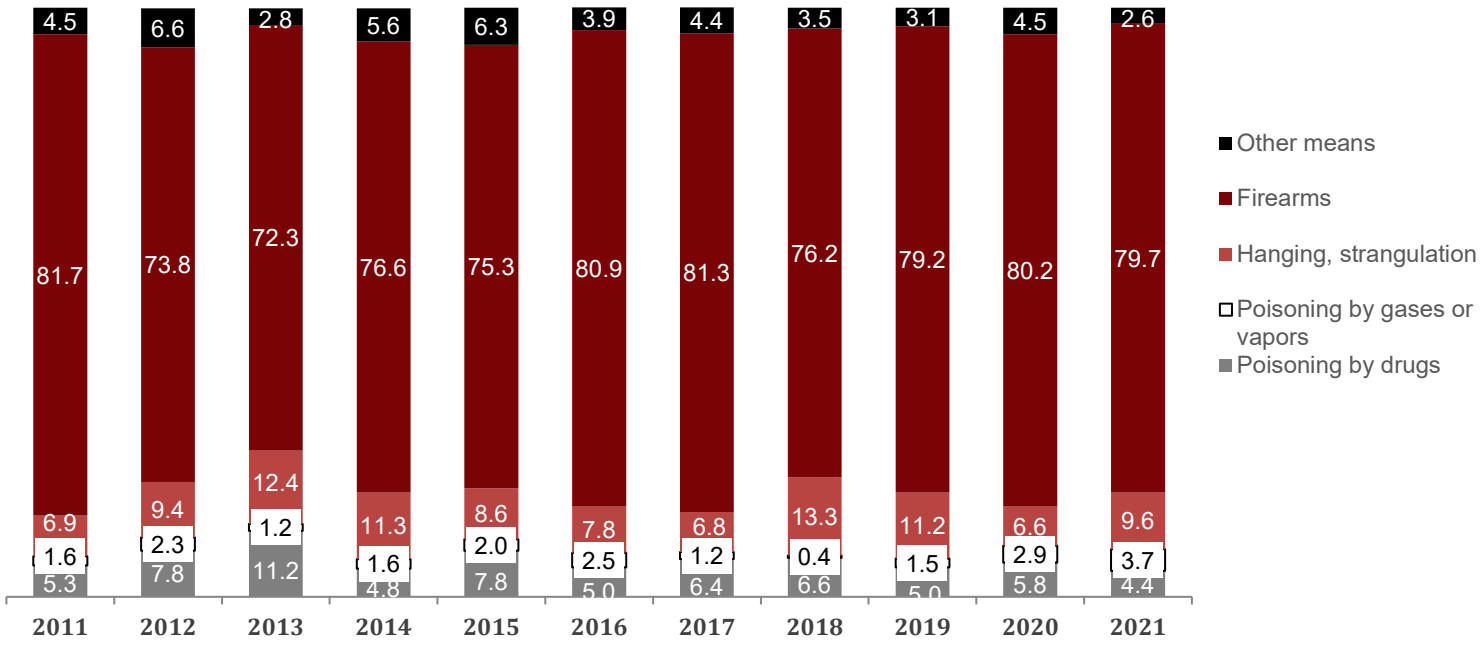


Note: [a]Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

From 2011 to 2021, firearms were consistently the leading method of suicide mortality among veteran residents of Arizona, with over 70.0 percent of these deaths involving guns. For the year 2021, 79.7 percent of veteran resident suicides were from firearms (Figure 9E).

During the 11-year period, the proportion of suicide deaths by means of hanging and/or strangulation rose in 2018 (13.3 percent), while the share of suicide deaths involving drug poisoning was at its largest in 2013 (11.2 percent).

Figure 9E: Method of suicide mortality among veterans: Arizona, 2011-2021



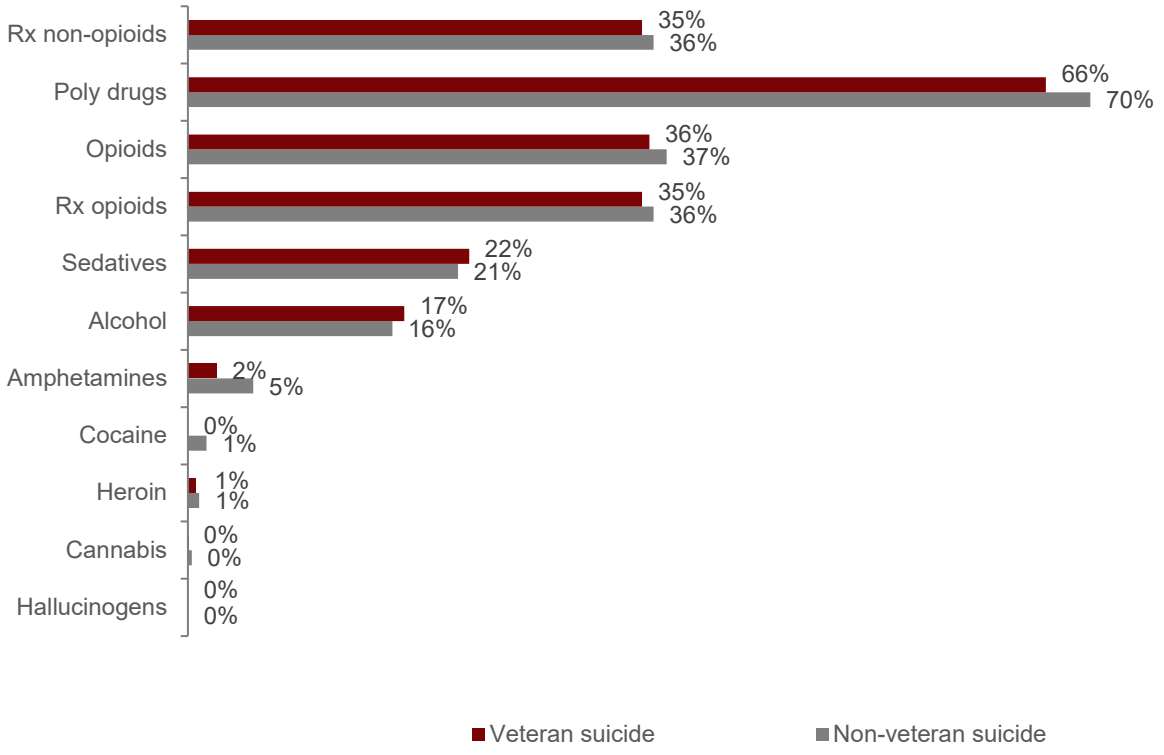
A closer look at substance use and suicide among Arizona resident veterans from 2011 to 2021 revealed the common types of substances involved in suicide cases where drug poisoning was the method used. These include alcohol, amphetamines, cannabis, cocaine, hallucinogens, heroin, opioids, prescription opioids, prescription medications, and sedatives (Figure 10E).

From 2011 to 2021, the analysis shows that poly-drug (two or more drugs) and opioids were on average the largest categories observed in suicide by poisoning among Arizona veterans and non-veterans alike.

Opioids and prescription opioids were present in 35.8 and 35.2 percent of veteran suicide deaths, respectively. These percentages may be close due to fentanyl being considered a prescription opioid. This is the case due to fentanyl not being seen as an illicit drug in 2011. Given the inability to discern the origin of fentanyl in toxicology results, a positive fentanyl result could indicate prescription or illicit misuse.

Among all substance categories defined in Figure 10E, there was not a large difference (less than 5 percent) between veteran and non-veteran categories.

Figure 10E: Substance use in suicide mortality by veteran status: Arizona, 2011-2021

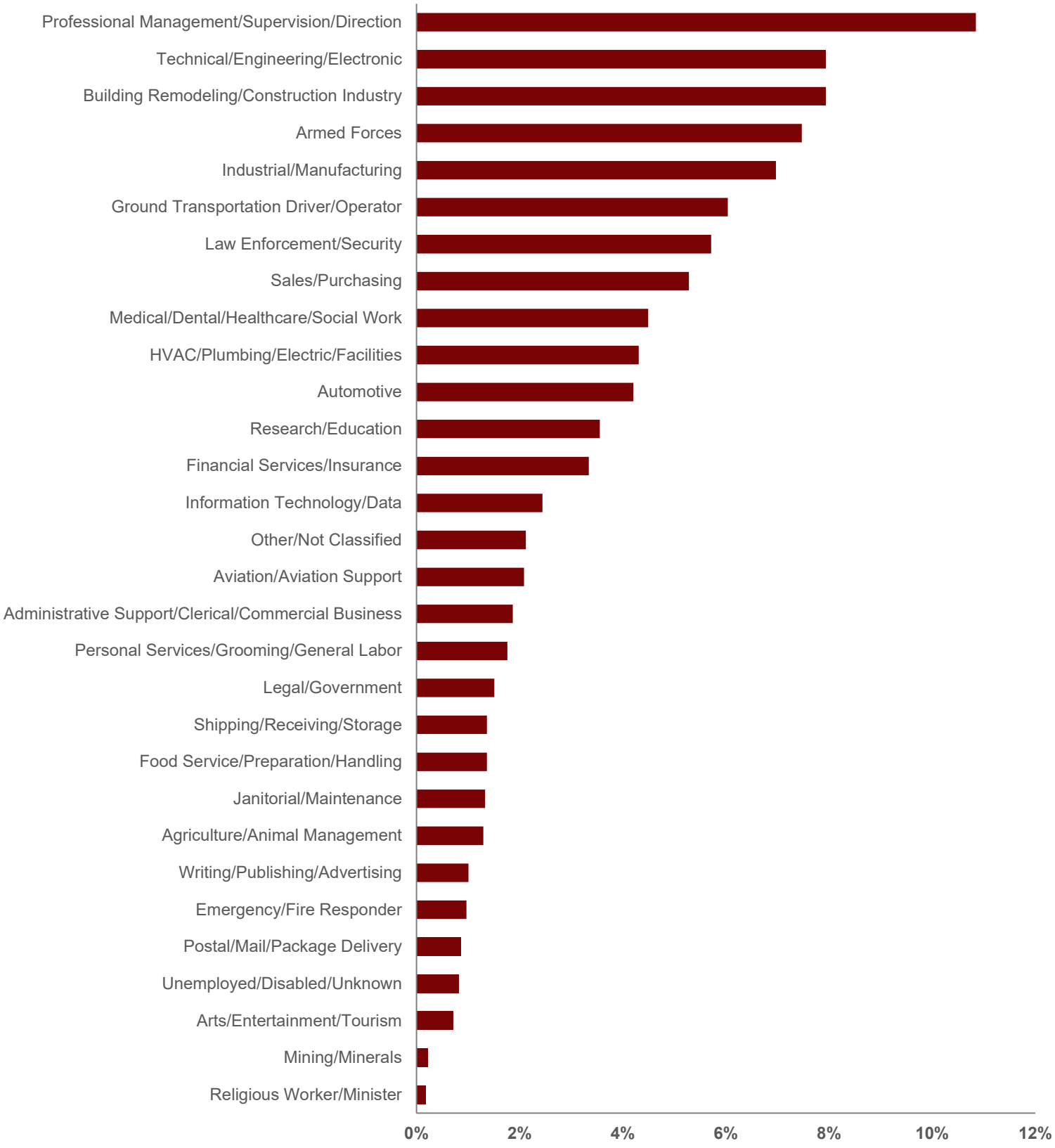


Veteran suicide mortality was analyzed by occupation to provide insight into its social and economic costs in the workplace. A combined 2011-2021 veteran suicide deaths were used to examine the distribution of veteran suicides by broad occupation categories (Figure 11E).

Of all veteran suicides recorded during the 11-year period, the highest percentage of veterans who died by suicide were in Professional Management/Supervision/Direction (10.8 percent), Technical/Engineering/Electronic and Building Remodeling/Construction Industry (both 7.9 percent), and Armed Forces (7.5 percent). During the same period, the lowest percentages of

suicides among veterans were in the Religious Worker/Minister group (0.2 percent), Mining and Minerals (0.2 percent), and Arts/Entertainment/Tourism (0.7 percent).

Figure 11E: Distribution of veteran suicide deaths by occupation: Arizona, 2011-2021



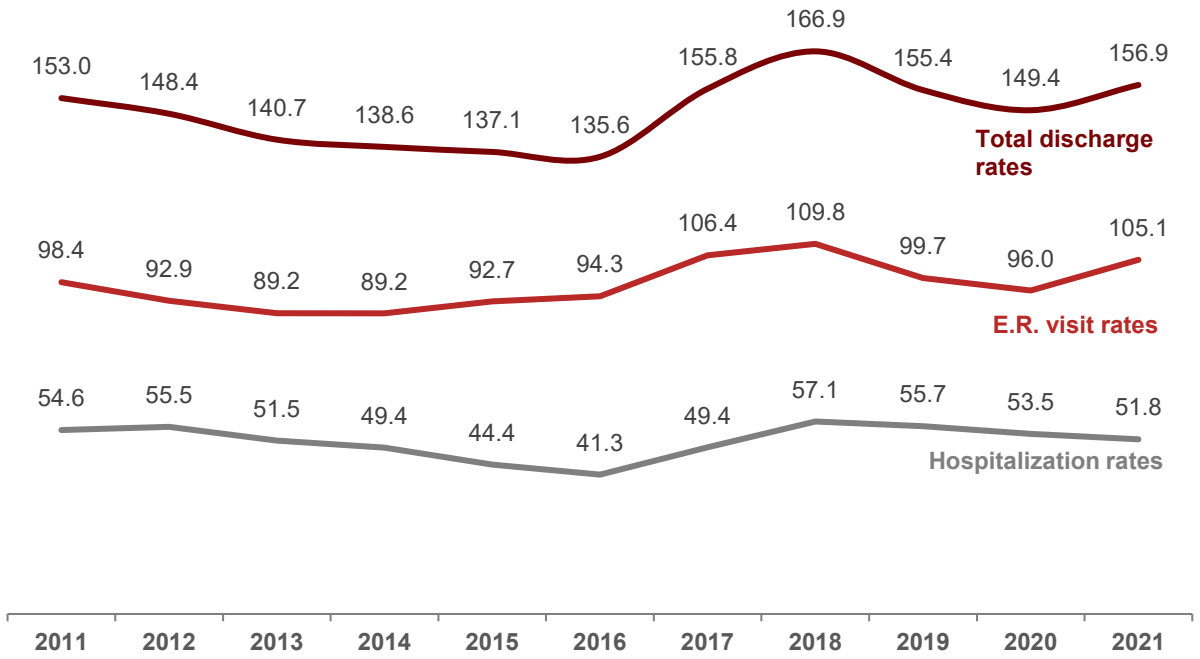
Self-Inflicted Injuries

Self-inflicted injuries result from actions of an individual inflicting physical damage to their own body. These injuries may be identified as a non-suicidal self-injury (NSSI), such as cutting, burning, biting, and scratching the skin[4], or as an attempt to end one's life (a suicide attempt). While NSSI is a risk factor for suicide, it does not indicate suicidal thoughts, ideas, or behaviors.[5] The self-inflicted injuries reflected in the hospital discharge data do not specify a non-suicidal self-injury versus a suicide attempt. Therefore, emergency room (E.R.) visits and hospitalizations for self-inflicted injury should not be strictly interpreted as seeking care only following a suicide attempt.

In 2021, there were 11,433 hospital discharges (3,777 inpatient stays and 7,656 emergency room visits) due to self-inflicted injuries. Compared to the number of Arizonans who died by suicide (n=1,469) in 2021, for every one suicide there were eight self-inflicted injuries that were associated with a hospital discharge (Figure 1F).

Between 2011 and 2021, there was an increase of 2.5 percent in total self-inflicted injury-related hospital discharge rates, with a 5.1 percent decrease in hospitalization rates and a 6.8 percent increase in E.R. visit rates due to self-inflicted injury.

Figure 1F: Hospital discharge rates[a] due to self-inflicted injury by type of encounter[b]: Arizona



[4] Zetterqvist, M. (2015). The DSM-5 diagnosis of nonsuicidal self-injury disorder: A review of the empirical literature. Child and Adolescent Psychiatry and Mental Health, 9(1), 1-13.
[5] Whitlock, J., Minton, R., Babington, P., & Ernhout, C. (2015). The relationship between non-suicidal self- injury and suicide. The Information Brief Series, Cornell Research Program on Self-Injury and Recovery. Cornell University, Ithaca, NY.

Rates of self-inflicted injury-related hospital discharges throughout 2011-2021 do not mirror rates of suicide mortality during the same period.

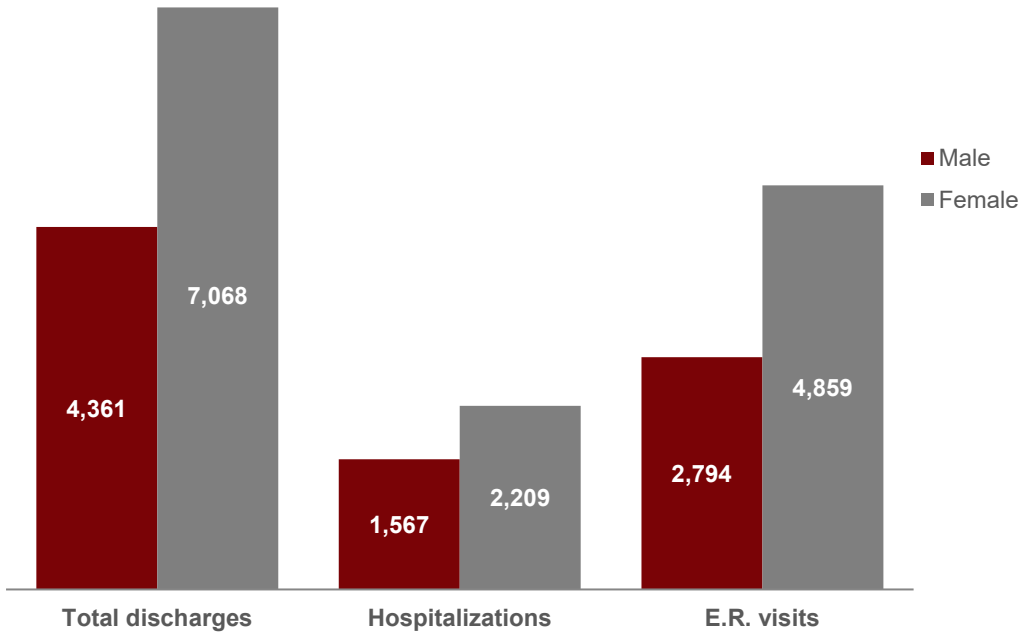
Sex-specific analysis of self-inflicted injury revealed differences in the frequency of hospital encounters.

In 2021, self-inflicted injuries resulting in hospital stays or E.R. visits were remarkably higher among Arizona females than their male counterparts. Out of 11,429 total hospital discharges where sex was collected, 61.8 percent were recorded among female residents (Figure 2F).

Arizona females comprised 58.5 percent of hospitalizations (n=2209) due to self-inflicted injuries, a proportion that is 1.4 times higher than that of Arizona males.

Similarly, the frequency of E.R. visits was almost twice as great for female residents (n=4859; 63.5 percent) than male residents (n=2794; 36.5 percent).

Figure 2F: Hospital discharge counts due to self-inflicted injury by sex: Arizona, 2021

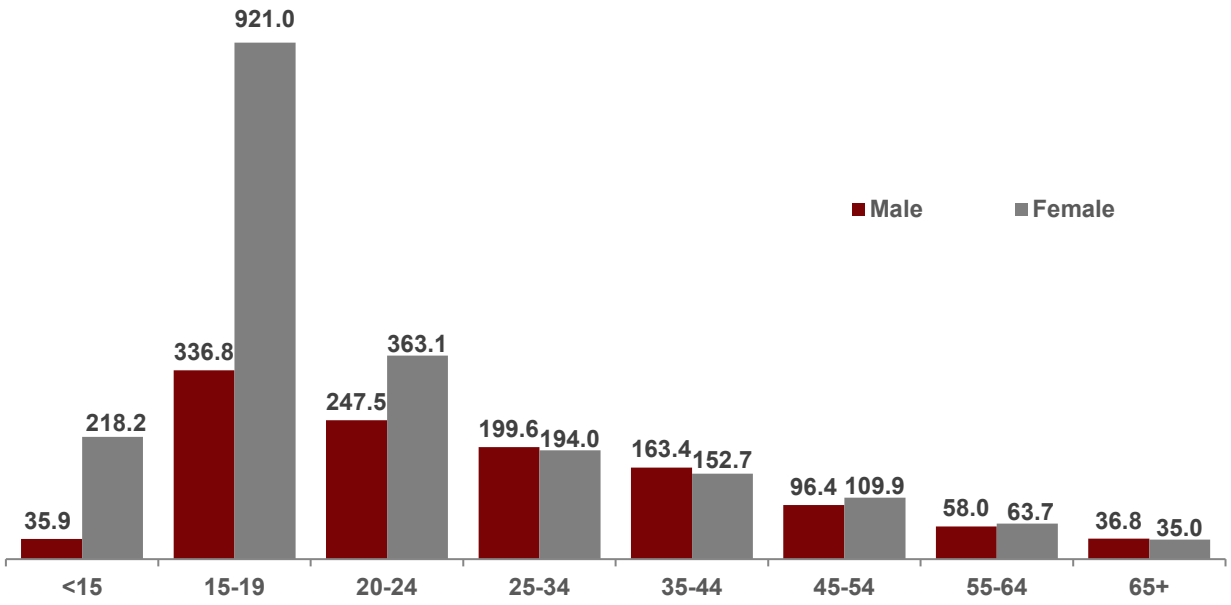


In 2021, the rates of hospital discharge due to self-inflicted injuries were greater among? males for all age groups with the exception of 25-34, 35-44, and 65+, although the rates are quite close between the sexes in these instances (Figure 3F).

For both sexes, the rate of hospital discharges due to self-inflicted injury noticeably peaked for ages 15-19 years and 20-24 years.

However, disparity between sexes in hospital utilization resulting from self-inflicted injury was most striking among Arizonans aged less than 15 years. The gap for that age group can be translated to a ratio of 6 female self-inflicted injury hospital discharges for every male self-inflicted injury hospital discharge.

Figure 3F: Hospital discharge rates[a] due to self-inflicted injury by age and sex: Arizona, 2021



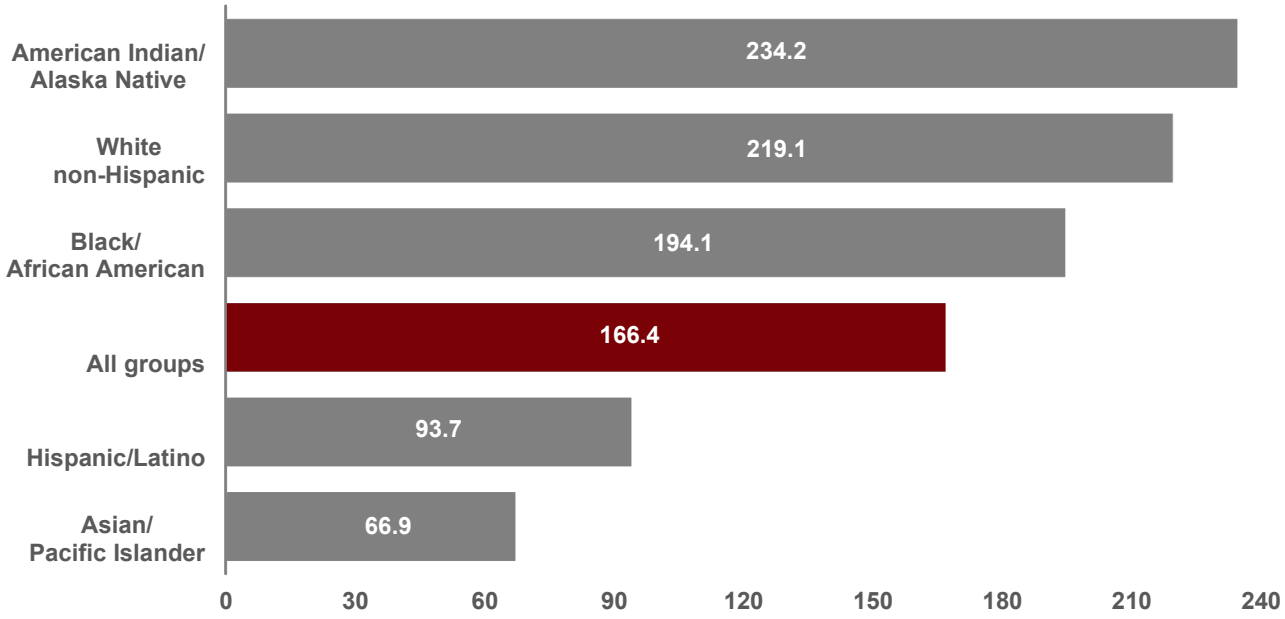
Notes: [a]Rate per 100,000 population; <15 years old includes 10-14 years.

In 2021, self-inflicted injury hospital discharge was highest among American Indian/Alaska Native adults (234.2 per 100,000 population) than any racial/ethnic group in Arizona (Figure 4F).

Similarly, White non-Hispanics and Black/African American adults exhibited higher rates of self-inflicted injury-related hospital discharge, compared to the Arizona "All Groups" rate.

In contrast, the Asian/Pacific Islander population group recorded the lowest self-inflicted injury-related hospital discharge rate (66.9 per 100,000 population).

Figure 4F: Hospital discharge rates[a] due to self-inflicted injury by race/ethnicity: Arizona, 2021

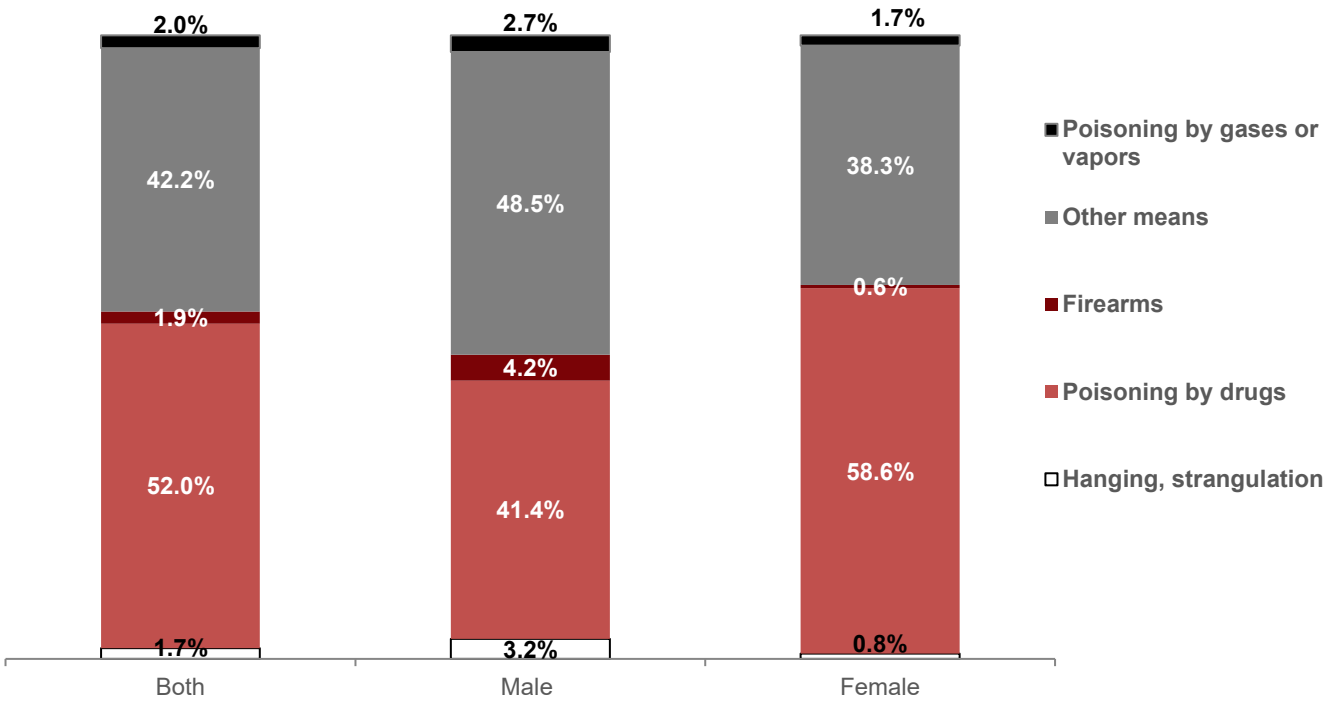


Note: [a]Number of deaths per 100,000 population age-adjusted to the 2000 US standard

In 2021, poisoning by drugs was the leading- method of self-inflicted injury, accounting for 52.0 percent of all self-inflicted injury-related hospital discharges in Arizona. When broken into sexes, the most common method of self-inflicted injury was poisoning by drugs, whereas for males the most common method was classified as "other means", which include but are not limited to drowning, jumping from a high place, crashing of a motor vehicle, and stabbing (Figure 5F).

Firearms and hanging, the most lethal methods of suicide, were the least likely to be involved in the total number of hospital discharges resulting in self-inflicted injuries. Distinctively, males recorded the highest proportion of self-inflicted injury-related hospital discharges involving firearms (4.2 percent) and strangulation (3.2 percent).

Figure 5F: Percentage of hospital discharges due to self-inflicted injury by method: Arizona, 2021

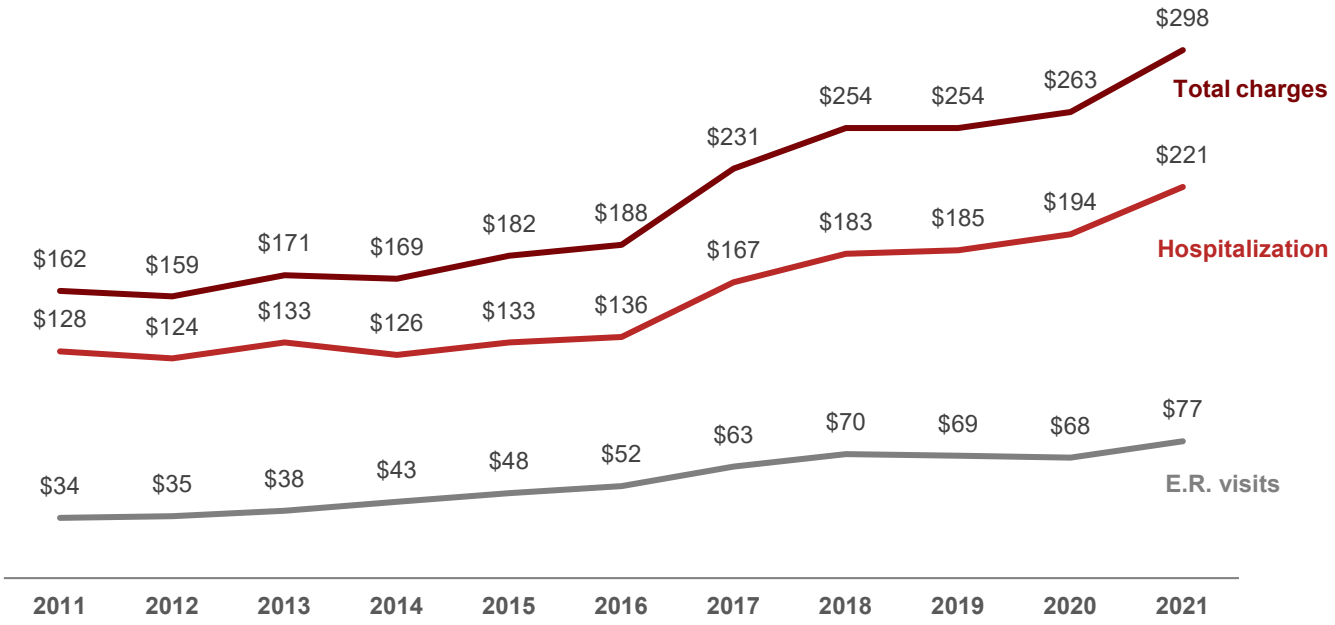


Note: Results in figure 5F include both inpatient discharges and emergency room visits.

In 2021, the annual reported charges of self-inflicted injury-related hospital discharges were estimated to be $298 million, with 74.1 percent of these costs attributable to hospitalizations. Trend analysis shows an increase in the total estimated health care costs of self-inflicted injury (Figure 6F).

From 2011 to 2021, the burden of health care costs increased by approximately two-fold. E.R. visit charges due to self-inflicted injury have increased the most during 2011-2021 (2.3-fold increase) compared to the hospitalization charges resulting from self-inflicted injury (1.7-fold increase).

Figure 6F: Total charges for hospital discharges due to self-inflicted injury by type of encounter (in millions): Arizona, 2011-2021



Appendix

TABLE 1
NUMBER OF SUICIDES AND SUICIDE MORTALITY RATES[a] [b] BY AGE GROUP AND YEAR, ARIZONA RESIDENTS, 2011-2021

	2011		2012		2013		2014		2015		2016		2017		2018		2019		2020		2021	
	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate
<15[a]	13	**2.9**	9	**2.0**	8	**1.7**	11	**2.4**	12	**2.6**	9	**1.7**	16	**3.5**	17	**3.6**	15	**3.1**	17	**3.6**	16	**3.4**
15-24	140	**15.4**	126	**13.7**	121	**12.9**	129	**13.7**	155	**16.4**	151	**15.9**	160	**15.8**	194	**20.2**	151	**15.6**	187	**19.5**	193	**19.9**
15-19	50	**10.8**	48	**10.3**	32	**6.8**	49	**10.8**	63	**13.8**	56	**12.1**	62	**11.9**	81	**17.2**	51	**10.7**	69	**14.6**	67	**14.2**
20-24	90	**20.2**	78	**17.2**	89	**19.1**	80	**16.4**	92	**18.7**	95	**19.5**	98	**19.5**	113	**23.1**	100	**20.3**	118	**24.1**	126	**25.4**
25-34	167	**19.3**	175	**20.2**	158	**18.2**	171	**19.3**	199	**22.1**	204	**22.3**	236	**21.8**	233	**24.2**	257	**26.0**	248	**25.0**	283	**28.0**
35-44	190	**22.9**	157	**18.9**	198	**23.7**	171	**20.5**	176	**21.0**	164	**19.5**	180	**19.3**	201	**23.2**	188	**21.3**	186	**21.1**	225	**25.1**
45-54	230	**27.1**	208	**24.9**	242	**29.0**	204	**24.2**	224	**26.6**	225	**26.7**	189	**26.5**	218	**25.5**	236	**27.7**	197	**23.4**	195	**23.1**
55-64	190	**26.0**	208	**27.8**	164	**21.6**	192	**24.6**	213	**26.7**	216	**26.5**	224	**25.9**	234	**27.4**	225	**25.9**	220	**25.3**	219	**24.9**
65+	182	**20.5**	187	**19.9**	224	**22.8**	246	**24.0**	254	**23.6**	287	**25.6**	299	**24.3**	335	**27.6**	339	**26.8**	304	**23.6**	338	**25.1**
65-74	83	**16.6**	94	**17.4**	112	**19.8**	137	**23.1**	138	**22.1**	153	**23.4**	150	**22.3**	186	**26.3**	155	**21.3**	133	**17.9**	174	**22.5**
75-84	63	**22.3**	62	**21.1**	82	**27.2**	77	**24.7**	81	**25.0**	92	**27.3**	99	**26.0**	108	**29.4**	123	**31.4**	114	**28.1**	114	**26.7**
85+	36	**34.6**	31	**28.6**	30	**26.7**	32	**26.7**	35	**27.9**	42	**32.1**	50	**30.5**	41	**29.7**	61	**42.7**	57	**39.7**	50	**33.5**
	Count	Age-adjusted Rate	Count	Age-adjusted Rate	Count	Age-adjusted Rate	Count	Age-adjusted Rate	Count	Age-adjusted Rate	Count	Age-adjusted Rate	Count	Age-adjusted Rate	Count	Age-adjusted Rate	Count	Age-adjusted Rate	Count	Age-adjusted Rate	Count	Age-adjusted Rate
TOTAL[b]	1,070	**16.7**	1,113	**17.3**	1,070	**16.5**	1,116	**17.0**	1,124	**16.9**	1,233	**18.2**	1,256	**18.4**	1,304	**18.0**	1,432	**19.5**	1,411	**18.9**	1,469	**19.4**

Notes: [a] Number of deaths per 100,000 population in a specified age group; <15 constitutes 10-14 years.
[b] Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard.

TABLE 2
SUICIDE COUNTS BY RACE/ETHNICITY AND SEX, ARIZONA, 2002-2021

	All groups			White non-Hispanic			Hispanic or Latino			Black or African American			American Indian or Alaska Native			Asian or Pacific Islander		
	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F
2002	860†	692	163	684	542	142	103	89	14	12	12	0	50	43	7	10†	*	0
2003	810†	647	160	624	499	125	105	84	21	20†	19	*	47	41	6	10†	*	*
2004	850†	674	180	662	511	151	120	105	15	20†	17	*	47	37	10	0†	*	*
2005	920†	723	192	694	542	152	147	126	21	10†	*	*	56	45	11	10†	*	6
2006	950†	743	205	735	562	173	128	113	15	20†	18	*	49	40	9	10†	9	*
2007	990†	773	213	774	599	175	150	123	27	20†	13	*	35	28	7	10†	9	*
2008	970†	737	231	772	580	192	105	90	15	20†	15	*	53	41	12	16	9	7
2009	1,060†	792	268	811	602	209	144	114	30	27	18	9	56	38	18	20†	13	*
2010	1,070†	846	224	832	651	181	125	103	22	20†	15	*	57	48	9	10†	10	*
2011	1,110†	866	247	873	666	207	135	117	18	24	18	6	56	45	11	10†	7	*
2012	1,070†	837	233	849	665	184	122	94	28	30†	22	*	60	46	14	10†	10	*
2013	1,120†	860	256	863	667	196	151	110	41	20†	15	*	69	55	14	10†	13	*
2014	1,120†	857	267	883	663	220	138	110	28	31	24	7	53	45	8	20†	15	*
2015	1,233	941	292	1,002	770	232	133	101	32	22	16	6	58	42	16	18	12	6
2016	1,256	976	280	955	739	216	173	143	30	28	20	8	75	56	19	25	18	7
2017	1,300†	1,000	304	973	738	235	177	144	33	30†	30	*	78	58	20	23	13	10
2018	1,432	1,146	286	1,049	825	224	185	159	26	55	44	11	113	94	19	19	13	6
2019	1,411	1,098	313	1,031	803	228	214	173	41	46	27	19	84	65	19	21	15	6
2020	1,360†	1,066	293	992	772	220	204	163	41	50	43	7	85	65	20	20†	18	*
2021	1,469	1,066	291	1,032	831	201	223	181	42	51	43	8	122	95	27	29	18	11

Notes: * Cell suppressed due to non-zero count less than 6; † Sum rounded to nearest tens unit due to non-zero addend less than 6. T = Total, M = Male, F = Female.

TABLE 3

AGE-ADJUSTED[a] MORTALITY RATES OF SUICIDE BY RACE/ETHNICITY AND SEX, ARIZONA, 2002-2021

	All groups			White non-Hispanic			Hispanic or Latino			Black or African American			American Indian or Alaska Native			Asian or Pacific Islander		
	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F
2002	15.9	26.4	6.0	18.3	30.0	7.4	8.3	14.2	2.5	6.2	11.4	0.0	17.9	31.7	4.9	4.1	**	0.0
2003	14.6	24.0	5.8	16.4	27.1	6.4	8.2	11.8	4.2	11.3	16.6	**	15.2	27.4	3.6	6.0	**	**
2004	14.9	24.1	6.3	16.6	26.4	7.5	9.8	17.5	2.2	12.1	17.3	**	17.0	28.5	6.5	4.0	**	**
2005	15.4	24.9	6.5	16.6	26.7	7.3	10.5	17.8	3.0	3.3	**	**	17.5	28.7	6.8	11.7	**	14.1
2006	15.4	24.7	6.6	17.8	27.9	8.5	8.2	14.2	2.0	8.3	13.9	**	13.7	23.4	4.5	8.4	13.2	**
2007	15.4	24.4	6.7	18.7	29.4	8.3	9.2	14.7	3.6	6.2	10.1	**	9.8	16.3	3.6	6.1	9.2	**
2008	14.8	23.0	7.0	17.6	27.3	8.5	6.5	10.8	1.9	7.5	10.3	**	13.5	21.2	5.9	9.9	10.7	8.8
2009	16.1	24.6	8.1	18.4	28.0	9.5	9.0	14.0	3.9	10.5	12.7	7.7	15.9	22.9	9.3	9.9	19.9	**
2010	16.7	27.1	6.7	20.6	32.8	8.7	7.4	12.5	2.6	6.4	9.9	**	18.7	32.3	5.7	6.8	11.0	**
2011	17.2	27.4	7.5	22.0	33.1	10.1	8.1	14.8	1.8	9.1	13.7	4.3	14.9	24.0	5.8	5.3	6.9	**
2012	16.2	25.9	7.0	20.2	32.2	8.7	6.8	11.1	2.9	10.0	15.5	**	17.9	27.9	8.1	5.7	10.2	**
2013	17.0	26.6	7.7	20.8	32.4	9.6	8.4	12.8	4.2	6.7	9.7	**	21.9	36.1	8.1	7.0	14.5	**
2014	16.5	25.6	7.7	21.0	31.9	10.4	8.3	13.4	3.4	9.0	13.6	4.2	13.9	24.3	3.7	7.0	12.0	**
2015	17.8	27.5	8.4	23.6	36.4	11.1	6.7	10.4	3.2	6.6	9.2	3.7	19.0	28.4	10.0	7.0	9.9	4.5
2016	17.7	28.0	7.9	21.7	33.6	10.2	8.8	15.0	2.9	9.0	13.1	5.2	24.2	36.7	11.9	9.3	14.0	4.7
2017	18.0	28.1	8.4	22.1	33.8	10.8	8.5	14.1	3.0	10.5	19.1	**	26.2	40.4	12.7	9.3	10.6	7.8
2018	19.5	31.5	7.8	23.7	37.5	10.2	8.7	15.2	2.4	16.0	24.6	6.6	36.5	61.8	12.3	7.3	11.0	4.1
2019	18.9	29.7	8.3	23.1	36.4	10.1	9.9	16.4	3.7	12.5	14.1	11.1	26.8	41.8	12.4	7.3	11.5	3.9
2020	18.2	28.8	8.0	22.5	35.0	10.3	9.2	14.9	3.6	13.7	22.1	4.5	28.0	43.9	12.9	6.8	12.4	**
2021	19.4	31.2	7.9	23.3	37.5	9.3	10.0	16.6	3.6	13.3	21.3	4.4	39.7	62.8	17.5	9.8	12.5	7.4

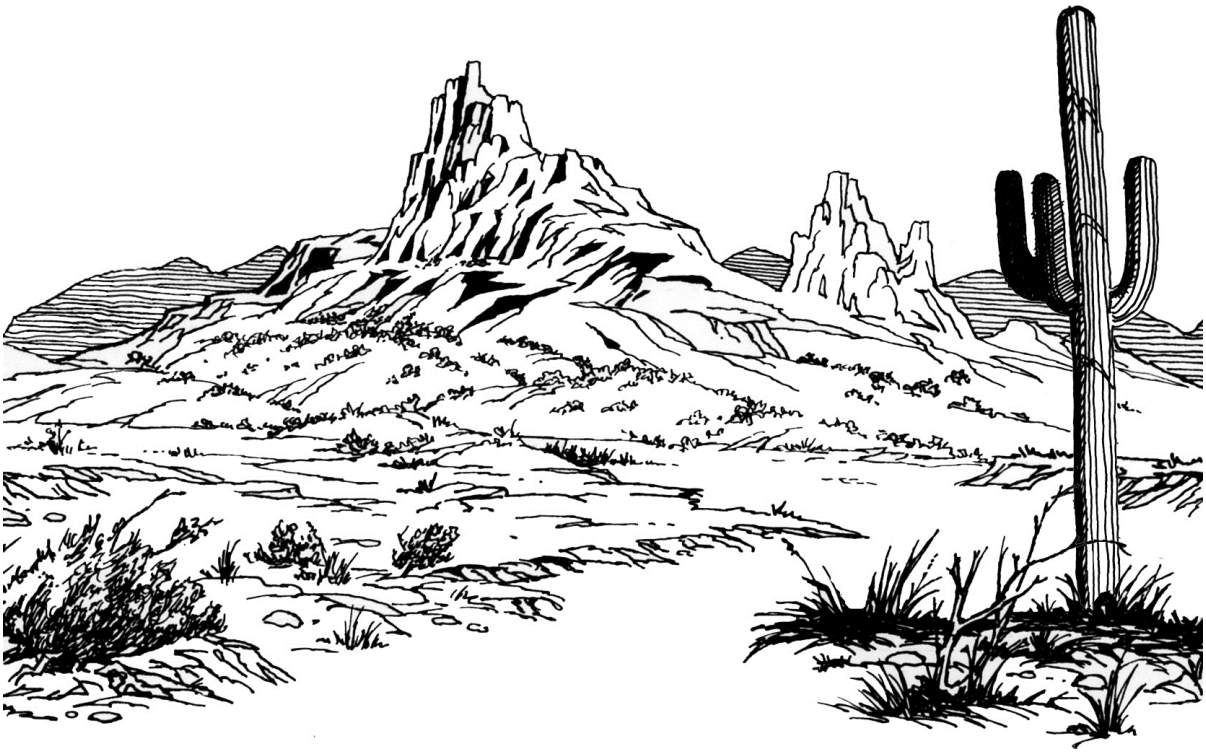
Note: [a] Adjusted to the 2000 standard U.S. population, number of deaths per 100,000 population in a specified age group. ** Cell suppressed due to non-zero count less than 6 T = Total, M = Male, F = Female.

TABLE 4
RATES AND COUNTS[a] OF SUICIDES RECORDED IN ARIZONA BY VETERAN STATUS, 2011-2021

Year	Overall State Suicide Rate	Overall State Suicide Count	Veteran Suicide Rate	Veteran Suicide Count	Non-Veteran Suicide Rate	Non-Veteran Suicide Count
2011	18.5	1,192	47.4	253	15.9	939
2012	18.3	1,191	51.5	271	15.4	920
2013	18.2	1,197	52.9	264	15.3	933
2014	19.1	1,274	56.1	271	16.2	1,003
2015	19.7	1,329	52.8	258	17.1	1,071
2016	19.4	1,325	58.5	284	16.4	1,041
2017	19.6	1,364	53.9	259	17.0	1,105
2018	21.3	1,510	53.6	266	18.9	1,244
2019	20.3	1,462	56.7	271	17.7	1,191
2020	19.8	1,419	52.1	256	17.4	1,163
2021	21.0	1,531	58.9	278	18.4	1,253

Notes: [a] Statistics compiled on the basis of where the deaths actually occurred; Counts include residents and non- residents.

Our Web site at http://pub.azdhs.gov/health-stats provides access to a wide range of statistical information about the health status of Arizonans. The Arizona Health Status and Vital Statistics annual report examines trends in natality, mortality, and morbidity towards established health objectives. Additional reports and studies include Advance Vital Statistics by County of Residence, Injury Mortality among Arizona Residents (accidents, suicides, homicides, legal intervention, firearm-related fatalities, drug-related deaths, drowning deaths, falls among Arizonans 65 years or older), Hospital Inpatient and Emergency Room Statistics (first-listed diagnosis, procedures, mental disorders, asthma, diabetes, influenza and pneumonia, and substance abuse), Community Vital Statistics, Teenage Pregnancy, Differences in Health Status Among Racial/Ethnic Groups, and Health Status Profile of American Indians in Arizona.



ARIZONA DEPARTMENT OF HEALTH SERVICES