2024
National Veteran Suicide Prevention ANNUAL REPORT

Part 2 of 2: Report Findings

Office of Suicide Prevention

December 2024

VA | U.S. Department of Veterans Affairs

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Summary of Key Findings

- Suicide was the 12th-leading cause of death for Veterans in 2022. Suicide was the 2nd-leading cause of death for Veterans under age 45-years-old.
- There were 6,407 Veteran suicide deaths in 2022, three more than in 2021.
- In 2022, there were 271 suicides among female Veterans (80 fewer than in 2021) and 6,136 among male Veterans (83 more than in 2021).
- There were 47,891 suicides in 2022 among all U.S. adults in 2022, on average 131.2 per day. These included on average 17.6 Veteran suicides per day, of which 7.0 per day were among Veterans who received VHA care in 2021 or 2022 and 10.5 were among other Veterans.
- In 2022, the unadjusted rate of suicide for Veterans was 34.7 per 100,000 (up from 34.0 per 100,000 in 2021). It was 13.5 per 100,000 for female Veterans (down from 17.6 per 100,000 in 2021) and 37.3 per 100,000 for male Veterans (up from 35.9 per 100,000 in 2021).
- In 2022, for female Veterans unadjusted and age-adjusted suicide rates were lower than in each of the 5 prior years. For female non-Veteran adults unadjusted and age-adjusted suicide rates in 2022 exceeded those of the prior 2 years.
- From 2021 to 2022, age-adjusted rates[1]increased by 1.6% for male Veterans and by 1.8% for male non-Veteran adults.
- For both male Veterans and male non-Veteran U.S. adults, unadjusted and age-adjusted suicide rates were higher in 2022 than in all other years included in this report, 2001-2022.
- In 2022, unadjusted suicide rates were highest among Veterans between ages 18- and 34-years-old, followed by those aged 35- to 54-years-old.
- In 2022, suicide was the 4th-leading cause of Veterans' years of potential life lost.[2]
- Among U.S. adults who died from suicide in 2022, firearms were more commonly involved among Veteran deaths (73.5%) than among non-Veteran deaths (52.2%).
- Within the overall unadjusted suicide rate for Veterans in 2022 (34.7 per 100,000), its largest component was firearm suicide mortality (25.5 per 100,000), followed by suffocation suicide mortality (4.5 per 100,000), poisoning suicide mortality (2.8 per 100,000) and suicide involving other methods (1.8 per 100,000).
- In each year, firearm suicide and suffocation suicide mortality rates were greater for male Veterans than for female Veterans, while the poisoning suicide mortality rate was higher for female Veterans than for male Veterans.
- Among female and male U.S. adults, rates of firearm and of poisoning suicide mortality were greater for Veterans than for non-Veterans, and differentials in rates by Veteran status were particularly high among female adults (e.g., the firearm suicide rate among female Veterans was 144.4% higher than for female non-Veteran adults, while the firearm suicide rate among male Veterans was 69.6% higher than for male non-Veteran adults).
- Consistent with higher-complexity medical and psychosocial needs among Veterans who seek VHA care, rates in 2022 were higher among Recent Veteran VHA Users than for Other Veterans for all-cause mortality and for leading causes of death, including heart disease, cancer, COVID-19, unintentional injury, and suicide.
- Suicide rates were higher among Recent Veteran VHA Users than for Other Veterans. As noted in previous reports, in comparison with Veterans not receiving VHA care, Veterans receiving VHA care have a higher risk with being more likely to have lower annual incomes; poorer self-reported health status;[3] more chronic medical conditions[4] and self-reported disability due to

[1] To compare rates across populations or periods, we use direct age-adjusted rates, stratified by sex. Adjusted rates represent the level of suicide mortality that we would see in the population and time period if the population had the same demographic distribution of a standard population, at least in terms of the adjustment variable(s). Consistent with current practice, in this report adjusted rates use the U.S. adult population in 2000 as the standard population. For more information, see Suicide Rates in Part 3, Section A of this report and the Methods Summary that accompanies this report.

[2] Years of potential life lost is a measure of premature death which expresses the number of years that would have been lived if premature death had not occurred. It is calculated as the difference between age at death and 75 (approximate life expectancy). If individuals live to or beyond age 75, YPLL is equal to 0. See: CDC. 1986. Premature Mortality in the United States: Public Health Issues in the Use of Years of Potential Life Lost. MMWR, 12/19/1986, 35(2S):1s-11s. https://www.cdc.gov/mmwr/preview/mmwrhtml/00001773.htm (Accessed 6/26/2024).

[3] Agha Z, Lofgren RP, VanRuiswyk JV, Layde PM. 2000. Are Patients at Veterans Affairs Medical Centers Sicker? A Comparative Analysis of Health Status and Medical Resource Use. Arch Intern Med. 160:3252-3257.

[4] Dursa EK, Barth SK, Bossarte RM, Schneiderman AI. 2016. Demographic, Military, and Health Characteristics of VA Health Care Users and Nonusers Who Served in or During Operation Enduring Freedom or Operation Iraqi Freedom, 2009-2011. Public Health Reports. 131(6):839-843.

physical or mental health factors;[5] greater depression and anxiety;[6] and greater reporting of trauma, lifetime psychopathology and current suicidality.[7] These differences may help to explain the greater suicide rates among Recent Veteran VHA Users compared to Other Veterans.

- From 2001 to 2022, age-adjusted suicide rates rose 24.0% for female Veterans with Recent VHA Use and 55.2% for female Veterans without Recent VHA Use. Age-adjusted suicide rates rose 19.6% for male Veterans with Recent VHA Use and 67.6% for male Veterans without Recent VHA Use.
    - That is, while in both 2001 and 2022 age-adjusted suicide rates were higher for female and for male Veterans with Recent VHA Use compared to those without Recent VHA Use, for both sexes age-adjusted rates rose proportionally more (from 2001 to 2022) among those without Recent VHA use than for those with Recent VHA Use.
- In 2022, the suicide rate among homeless Recent Veteran VHA Users was 110.2% higher than for those without diagnoses of homelessness. In 2022, the unadjusted suicide rate among Recent Veteran VHA Users with diagnoses of homelessness was 21.4% higher than in 2001, 5.9% higher than in 2020, and 19.1% lower than in 2021.
- For Recent Veteran VHA Users, the suicide rate in the 90 days following documentation of a COVID-19 infection fell from 75.5 per 100,000 in 2020 to 42.1 per 100,000 in 2022.
- Among female Veterans in VHA care aged 40-64 who received menopausal hormone therapy, the suicide rates fell 47.4% from 2002 (33.7 per 100,000) to the years 2019-2022 (17.7 per 100,000).
- Among female Recent Veteran VHA Users in 2022, the suicide rate was 75.0% higher for those with positive screens for military sexual trauma (24.95 per 100,000) than those with negative screens (14.26 per 100,000). The rate was 74.6% higher for male Recent Veteran VHA Users with positive screens (75.47 per 100,000) than for those with negative screens (43.23 per 100,000).
- For Recent Veteran VHA Users in 2021-2022, the suicide rate was 166.1 per 100,000 for those with active Behavioral Patient Record clinical flags, 122.0 per 100,000 for those whose flag status was inactive and had a flag in the prior 5 years, versus 40.3 per 100,000 for those without active flags currently or in the prior 5 years.
- In each year, suicide rates for Recent Veteran VHA Users were elevated among those with Veterans Justice Program services compared to those without such contact. In 2022, the suicide rates for Recent Veteran VHA Users who receive Veterans Justice Program services (147.3 per 100,000) was 264.6% higher than for Veterans in VHA care who did not receive these services.
- The suicide rate for recipients of Veterans Justice Program services was 1.6% higher in 2022 than in 2021, while rising 3.8% for other Veterans in VHA care.
- For Recent Veteran VHA Users with cancer diagnoses, rates rose from 2020 to 2021 (46.7 per 100,000 to 49.5 per 100,000) then fell to 41.5 per 100,000 in 2022.
- Among Veterans in VHA care with documented contact with the Veterans Crisis Line in 2021,[8] including calls, chats and texts, the suicide rate in the 30 subsequent days was 734.0 per 100,000 and the rate through 12 months was 303.3 per 100,000.
- Each year, 2005-2022, suicide rates were highest for Veterans in priority eligibility Group 5, which includes income-based eligibility (56.7 per 100,000 in 2022). In Group 5, suicide rates in 2022 were highest for those age 75 and older (77.1 per 100,000).
- Veteran all-cause mortality was elevated in 2020-2021, the first two years of the COVID-19 pandemic and fell in 2022. COVID-19 mortality fell in 2022 yet remained the third leading cause of death for Veterans.
- In 2022, suicide was the 15th leading cause of death among Recent Veteran VHA Users and suicide was the 11th leading cause of death among other Veterans.
- In each year, 2020-2022, suicide rates were highest for Veterans who received any Community Care services, followed by Veterans who received any VHA direct care, and suicide rates were lowest among Veterans who did not receive either Community Care or VHA direct care.
    - As noted in the Community Care in-depth review, above, variation in suicide rates across these Veteran subpopulations are understood to correspond with documented differences in suicide risk and protective factors.

[5] Nelson KM, Starkebaum GA, Reiber GE. 2007. Veterans Using and Uninsured Veterans Not Using Veterans Affairs (VA) Health Care. Public Health Rep. 122:934-100.

[6] Fink DS, Stohl M, Mannes ZL, Shmulewitz D, Wall M, Gutkind S, Olfson M, Gradus J, Keyhani S, Maynard C, Keyes KM, Sherman S, Martins S, Saxon AJ, Hasin DS. 2022. Comparing Mental and Physical Health of U.S. Veterans by VA Healthcare Use: Implications for Generalizability of Research in the VA Electronic Health Records. BMC Health Services Research. 22:1500 https://doi.org/10.1186/s12913-022-08899-y.

[7] Meffert BN, Morabito DM, Sawicki DA, Hausman C, Southwick SM, Pietrzak RH, Heinz AJ. 2019. U.S. Veterans Who Do and Do Not Utilize VA Health Care Services: Demographic, Military, Medical, and Psychosocial Characteristics. Primary Care Companion CNS Disorders. 21(1):doi:10.4088/PCC.18m02350.

[8] Veteran in VHA care in 2021 were the most recent cohort, ensuring that for each Veteran there was the opportunity to evaluate the suicide rate over the entire subsequent 12 months, as the most recent mortality data was available through 12/31/2022.

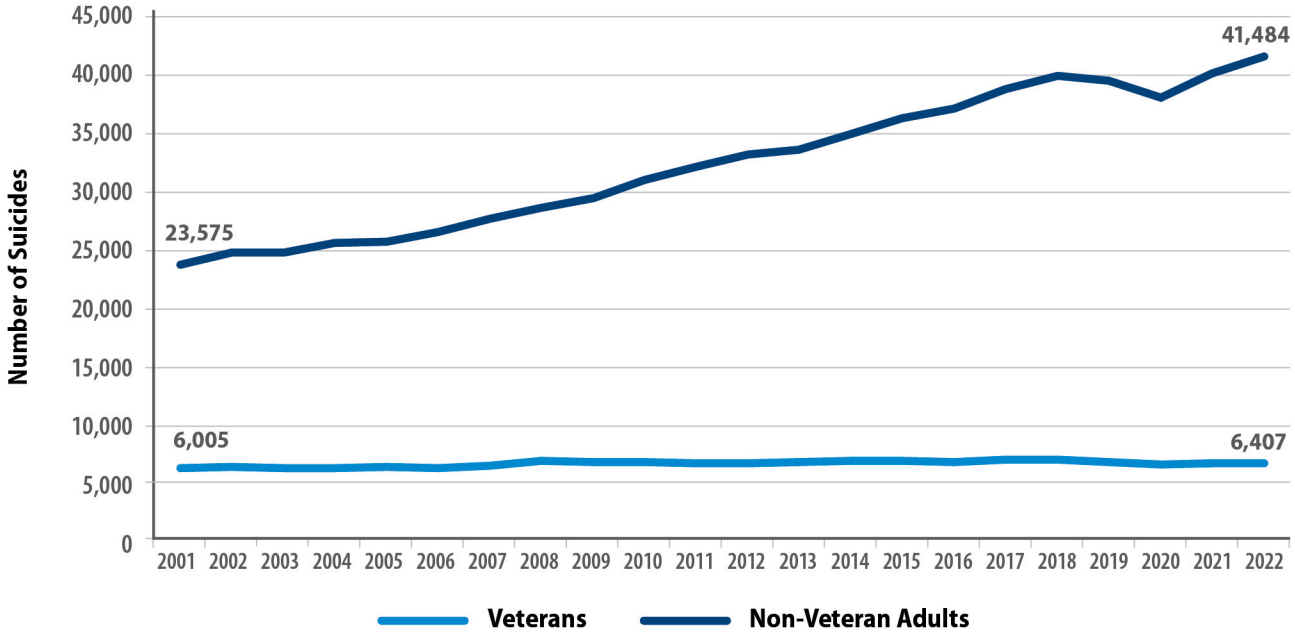
- Overall, 50.4% of Veterans who died from suicide in 2022 had received VHA or VBA services in 2021 or 2022, while 49.6% of Veterans in 2022 did not.
- In 2022, suicide rates were highest among Veterans who only received VHA services, followed by those who received both VHA and VBA services, then those who received neither VHA nor VBA services. Suicide rates were lowest among Veterans who received VBA services and did not receive VHA services.
- Among Recent Veteran VHA Users whose suicide deaths occurred in 2020-2022 and were reported to VHA Suicide Prevention teams, VA Behavioral Health Autopsy Program[9] data indicated that the most frequently identified risk factors were pain (53.8%), sleep problems (51.4%), increased health problems (42.5%), recent declines in physical ability (34.3%), relationship problems (33.1%), hopelessness (30.4%), impulsivity (27.1%) and unsecured firearms in the home (27.1%).

Section A: Veteran Suicide, 2001–2022

Suicide Deaths

- In 2022, there were 47,891 suicides among U.S. adults. These included 6,407 suicides among Veterans[10] (three more than in 2021) and 41,484 among non-Veterans (1,476 more than in 2021).

Figure 1: Suicide Deaths Among Veterans and Non-Veteran U.S. Adults, by Year, 2001–2022

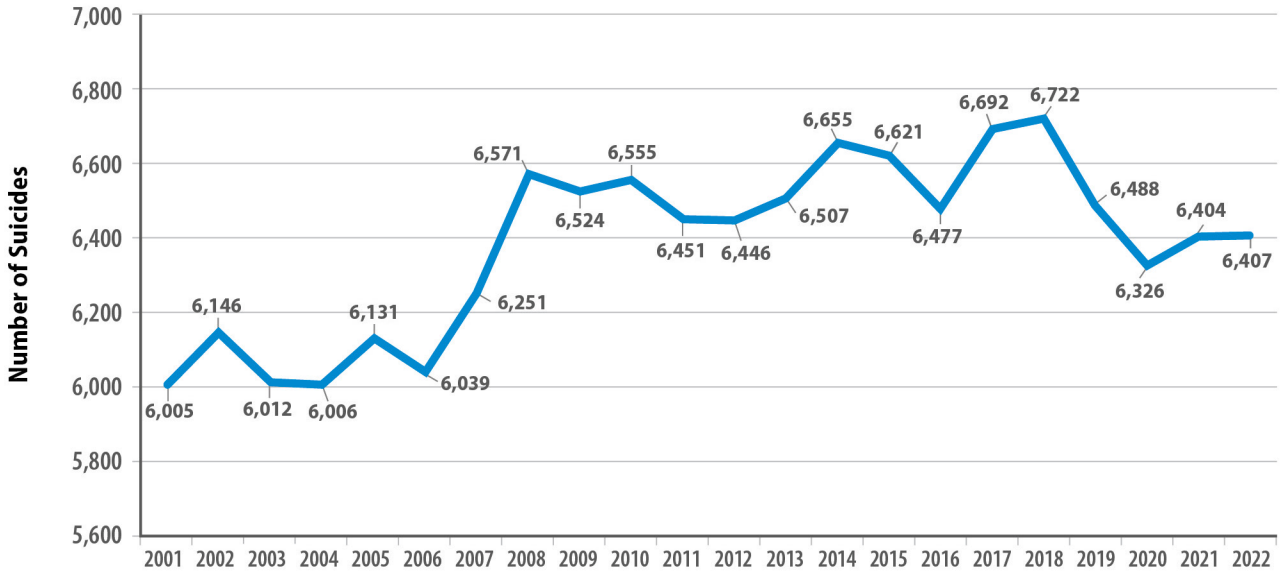


[9] Through this program, suicide prevention teams perform standardized reviews of health records to identify factors relevant to Veteran suicides, considering all available information. See Part 3, Section B, Behavioral Health Autopsy Program Reviews.

[10] For this report, Veterans were defined as persons who had been activated for federal military service and were not currently serving at the time of death. For more information, see the accompanying *2024 National Veteran Suicide Prevention Annual Report Methods Summary.*

Figure 2 details variation in the number of Veteran suicides, by year from 2001 to 2022.

Figure 2: Veteran Suicide Deaths, 2001–2022



Average Number of Suicides Per Day[11]

In 2022, there were, on average, 131.2 suicides per day among U.S. adults, including 17.6 per day among Veterans and 113.7 per day among non-Veteran adults.

- Among all U.S. adults, including Veterans, the average number of suicides per day rose from 81.0 per day in 2001 to 131.2 in 2022. The average number per day among U.S. adults was highest in 2022 (131.2 per day).
- The average number of Veteran suicides per day rose from 16.5 in 2001 to 17.6 in 2022. The average number of suicides per day was highest in 2018 for Veterans (18.4 per day). Of the on-average 17.6 Veteran suicides per day in 2022, approximately 40.1% (7.0 per day) were among Recent Veteran VHA Users[12] and 59.9% (10.5 per day) were among Other Veterans.

Suicide Rates

From 2001 to 2022, the Veteran population decreased by 28.4%, from 25.8 million to 18.5 million. During this same timeframe, the non-Veteran U.S. adult population increased by 30.0%, from 186.5 million to 242.4 million. In this context, it is important to assess suicide mortality rates, which convey the incidence of suicide relative to the size of the population.

[11] Decreases in the size of the Veteran population and increases in the size of the U.S. population over this period limit interpretation of these statistics. Rates of suicide, stratified by group, are appropriate for understanding changes in Veteran and non-Veteran populations. These are included elsewhere in this report and in the accompanying data appendix.

[12] Consistent with prior reports, Recent Veteran VHA Users were defined as Veterans who received inpatient or outpatient health care (in person or via telehealth) at a VHA facility in the year of interest or the prior year (here, in 2022 or in 2021). Health care received from non-VHA facilities, including such care that was funded by VA (i.e., Community Care) was not included.

Unadjusted Rates

Suicide rates represent the number of suicide deaths relative to the population's time at risk of being documented with a suicide death[13] Rates are reported as suicides per 100,000.[14] Direct adjusted rates are used for comparisons while adjusting for population differences.[15] To report the burden of suicide in a given population and period, we use unadjusted rates. To compare rates across populations or periods, we use direct age-adjusted rates, stratified by sex.[16]

- The unadjusted suicide rate for Veterans was 23.3 per 100,000 in 2001, 34.0 per 100,000 in 2021, and 34.7 per 100,000 in 2022. For non-Veteran U.S. adults, the suicide rate was 12.6 per 100,000 in 2001, 16.6 per 100,000 in 2021, and 17.1 per 100,000 in 2022. In 2022, Veterans between ages 18- and 34-years-old had a suicide rate of 47.6 per 100,000; the rate was 35.5 per 100,000 for those between ages 35- and 54-years-old; 31.2 per 100,000 for those between ages 55- and 74-years-old; and 33.8 per 100,000 for those aged 75-years-old and older.
- In 2022, the unadjusted suicide rate for female Veterans was 13.5 per 100,000 (down from 17.6 per 100,000 in 2021) and it was 37.3 per 100,000 for male Veterans (up from 35.9 per 100,000 in 2021.)
- In 2022, the unadjusted suicide rate of female non-Veteran U.S. adults was 7.2 per 100,000 (up from 6.9 per 100,000 in 2021) and it was 28.7 per 100,000 for male non-Veteran U.S. adults (up from 28.1 per 100,000 in 2021).

[13] Risk time is measured using mid-year population estimates when individuals' exact risk times were unavailable. It was calculated exactly for analyses of subgroups of Veterans with recent VHA care.

[14] For the Veteran population, risk time was assessed using the mid-year population estimate, as detailed in the accompanying methods summary. When risk time was assessed per individual level risk-time information, we included "per 100,000 person-years."

[15] Suicide risks may differ across demographic categories. If groups differ in these characteristics, then that variation may account for some of the differences in unadjusted rates. The Veteran and non-Veteran adult populations differ by age and sex. Overall, Veterans are on average older and more male. Adjusted rates translate the unadjusted rate for a population into a measure of what the rate would be if the compared populations had the same distributions of the demographic factors that are adjusted for. Per standard practice, adjusted rates are calibrated to the demographic distribution of the U.S. adult population in 2000. However, such direct adjustment has limitations. When the demographic distributions are markedly different from those of the reference population (as the Veteran population's sex distribution is compared to that of the U.S. adult population of 2000), "direct estimates are strongly weighted toward the relative mortality risk of groups least well represented in the reference population." See: Morral AR, Schell TL, Smart R. 2023. Comparison of Suicide Rates Among US Veteran and Nonveteran Populations. JAMA Network Open. 6(7): e2324191. Consequently, in this report, direct adjustment is limited to age-adjustment stratified by sex. For reference, age- and sex-adjusted rates are included in the accompanying data appendix.

[16] Adjusted rates represent the level of suicide mortality that we would see in the population and time period if the population had the same demographic distribution of a standard population, at least in terms of the adjustment variable(s). Consistent with current practice, in this report, adjusted rates use the U.S. adult population in 2000 as the standard population. Unadjusted rates are presented when adjustment was not possible due to small numbers within strata. Use of the direct method and the standard U.S. population of 2000 for adjustment are consistent with CDC reporting (Garnett MF, Curtin SC. 2023. Suicide Mortality in the United States, 2001–2021. CDC NCHS, Data Brief 464. Klein RJ, Schoenborn CA. 2001. Age Adjustment Using the 2000 Projected U.S. population. Healthy People 2010 Statistical Notes, no. 20. Hyattsville, Maryland: NCHS).

Table 1 presents unadjusted suicide rates among Veterans and non-Veteran U.S. adults, overall and by sex, from 2001 through 2022.[17]

- The suicide rate for Veterans in 2022 was 34.7 per 100,000. In 2001, it was 23.3 per 100,000.
- The suicide rate for non-Veteran U.S. adults in 2022 was 17.1 per 100,000. In 2001, it was 12.6 per 100,000.
- Suicide rates were higher in 2022 than in 2021 for male Veterans, for male non-Veteran adults, and for female non-Veteran adults. By contrast, the suicide rate for female Veterans was lower in 2022 than in 2021.

Table 1: Unadjusted Suicide Rate, Veteran and Non-Veteran U.S. Adults, by Year and Sex, 2001–2022

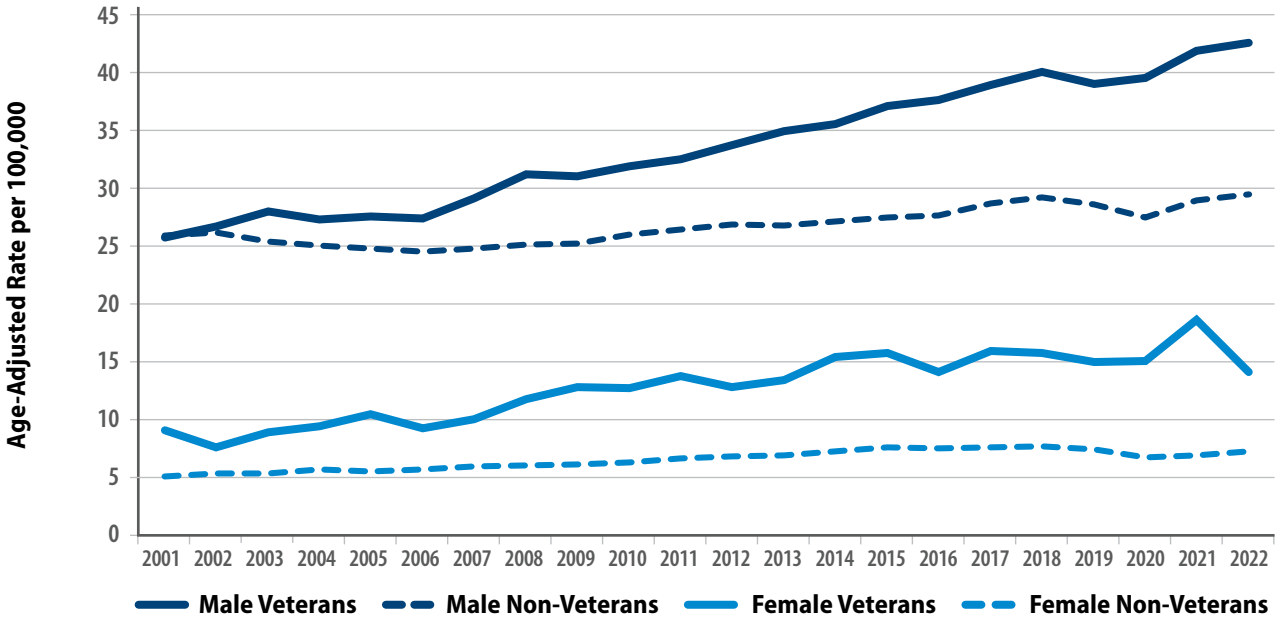
	Suicide Rate per 100,000					
	Veterans			Non-Veteran U.S. Adults		
Year	All	Female	Male	All	Female	Male
2001	23.3	9.5	24.2	12.6	5.2	22.9
2002	24.2	8.0	25.3	13.0	5.4	23.2
2003	24.0	8.9	25.1	12.8	5.4	22.8
2004	24.2	9.5	25.3	13.0	5.8	22.8
2005	24.9	10.4	26.1	12.9	5.6	22.6
2006	25.0	9.5	26.3	13.1	5.8	22.8
2007	26.4	10.4	27.7	13.5	6.0	23.3
2008	28.1	12.0	29.4	13.8	6.1	23.8
2009	28.3	12.7	29.6	14.0	6.2	24.0
2010	28.8	13.1	30.1	14.5	6.4	24.9
2011	28.7	13.9	30.0	14.8	6.6	25.3
2012	29.1	13.0	30.5	15.1	6.8	25.7
2013	29.6	13.4	31.1	15.1	6.9	25.5
2014	30.7	15.7	32.1	15.6	7.2	26.0
2015	31.2	16.0	32.7	16.0	7.6	26.5
2016	31.0	14.3	32.7	16.2	7.5	26.8
2017	32.6	15.4	34.4	16.8	7.5	28.0
2018	33.3	14.8	35.3	17.1	7.6	28.5
2019	32.7	14.9	34.7	16.7	7.3	28.1
2020	32.8	14.3	34.9	15.9	6.7	26.8
2021	34.0	17.6	35.9	16.6	6.9	28.1
2022	34.7	13.5	37.3	17.1	7.2	28.7

[17] These document the number of suicide deaths per year for every 100,000 individuals in the population of interest, based on the mid-year population and assuming steady population size over the year.

Age-Adjusted Rates, by Sex and Veteran Status

- Figure 3 presents age-adjusted suicide rates among Veteran and non-Veteran U.S. adults, by sex, 2001–2022. For female Veterans, rates were highest in 2021, and for female non-Veterans, rates were highest in 2018. For male Veterans and for male non-Veterans, rates were highest in 2022.
- Adjusting for age differences, the suicide rate in 2022 among female Veterans was 92.4% higher than for female non-Veteran U.S. adults, and the age-adjusted rate for male Veterans was 44.3% higher than for male non-Veteran U.S. adults.[18]
- From 2021 to 2022, the age-adjusted suicide rate decreased 24.1% among female Veterans, while increasing 1.6% among male Veterans. By comparison, from 2021 to 2022, the age-adjusted suicide rate increased 5.2% among female non-Veterans and 1.8% among male non-Veterans.
- From 2001 to 2022, the age-adjusted suicide rate increased 55.4% for female Veterans, 42.5% for female non-Veterans, 65.0% for male Veterans, and 13.6% for male non-Veteran U.S. adults.

Figure 3: Age-Adjusted Suicide Rate, Veteran and Non-Veteran U.S. Adults, by Sex, 2001–2022



Indirect Adjustment, Suicide Mortality, by Veteran Status

In this report, we present age-adjusted suicide rates, by sex, calculated using direct adjustment.[19] A second approach for comparisons uses indirect adjustment, which calculates the ratio of the number of actual Veteran suicides to the number that would occur if the Veteran population had the same age- and sex-specific suicide rates as the non-Veteran population. For 2022, this standardized mortality ratio was 1.105. This means that the number of Veteran suicides was 10.5% higher (about 609 more[20]) than if the Veteran population experienced the same suicide rates as non-Veteran adults. Applying this for each year, 2001–2022, the standardized mortality ratios indicate that Veterans had decreased suicide mortality (relative to non-Veterans) from 2001–2007, and Veterans had relatively greater (or "excess") suicide mortality from 2009-2010 and 2014-2022. From 2001 to 2022, standardized mortality ratios ranged from 0.776 in 2001 to 1.159 in 2020.

[18] For female and for male U.S. adults, differentials in adjusted rates by Veteran status were highest in 2021.

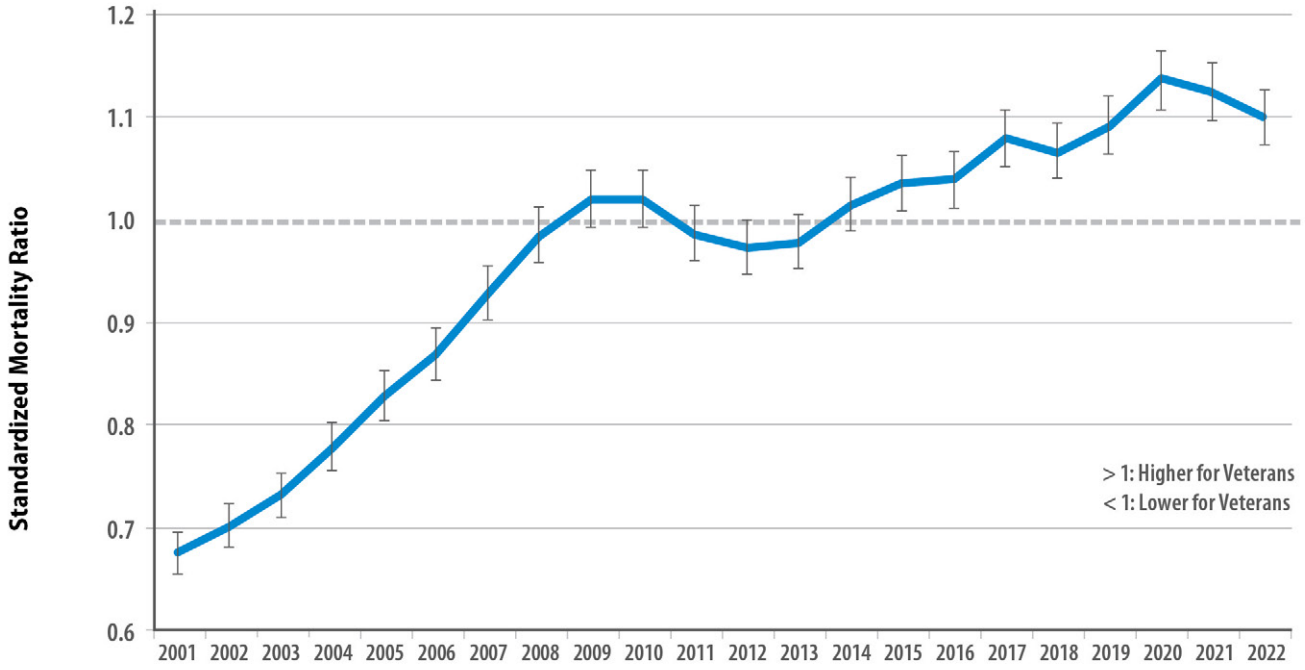
[19] That is, age-specific suicide rates of the compared populations are applied to the age distribution of the overall U.S. population in 2000. See: Klein RJ, Schoenborn CA. 2001. Age Adjustment Using the 2000 Projected U.S. Population. Healthy People Statistical Notes, no. 20. Hyattsville, Maryland: National Center for Health Statistics.

[20] There were 608.6 excess Veteran suicide deaths in 2022 relative to what would be expected if the Veteran population had the same age- and sex-stratified suicide rates as the non-Veteran U.S. adult population.

For the years 2001–2022, there were 1,650 fewer Veteran suicides than if the Veteran population had the suicide rates of non-Veterans.[21] This reflects lower suicide mortality among male Veterans from 2001–2007, despite greater suicide mortality in 2010 and from 2015-2022 and greater suicide mortality among female Veterans in all years. Increases in Veteran suicide rates relative to those of non-Veteran adults are reflected in the increased excess Veteran suicide mortality over the years of the report.

To consider variation in standardized mortality ratios over time,[22] Figure 4 presents mortality ratios standardized for each year to the demographic distribution of the 2022 Veteran population.[23]

Figure 4: Suicide Age- and Sex- Standardized Mortality Ratio, for Veterans Relative to Non-Veteran U.S. Adults, 2001–2022



Suicide risk for Veterans relative to non-Veteran U.S. adults increased from 2001 to 2010, fell through 2012, rose through 2020, and then fell through 2022.

[21] "Excess suicide deaths" refers to the difference between the observed number of Veteran suicides and the number that would be observed ("expected") if the age- and sex-specific suicide rates in the non-Veteran U.S. adult population were applied to the Veteran population. Negative values indicate there were fewer Veteran suicides than would be observed if Veterans had the rates of non-Veterans. Cumulative difference between observed and "expected" suicide deaths ("excess suicide deaths"), by sex:

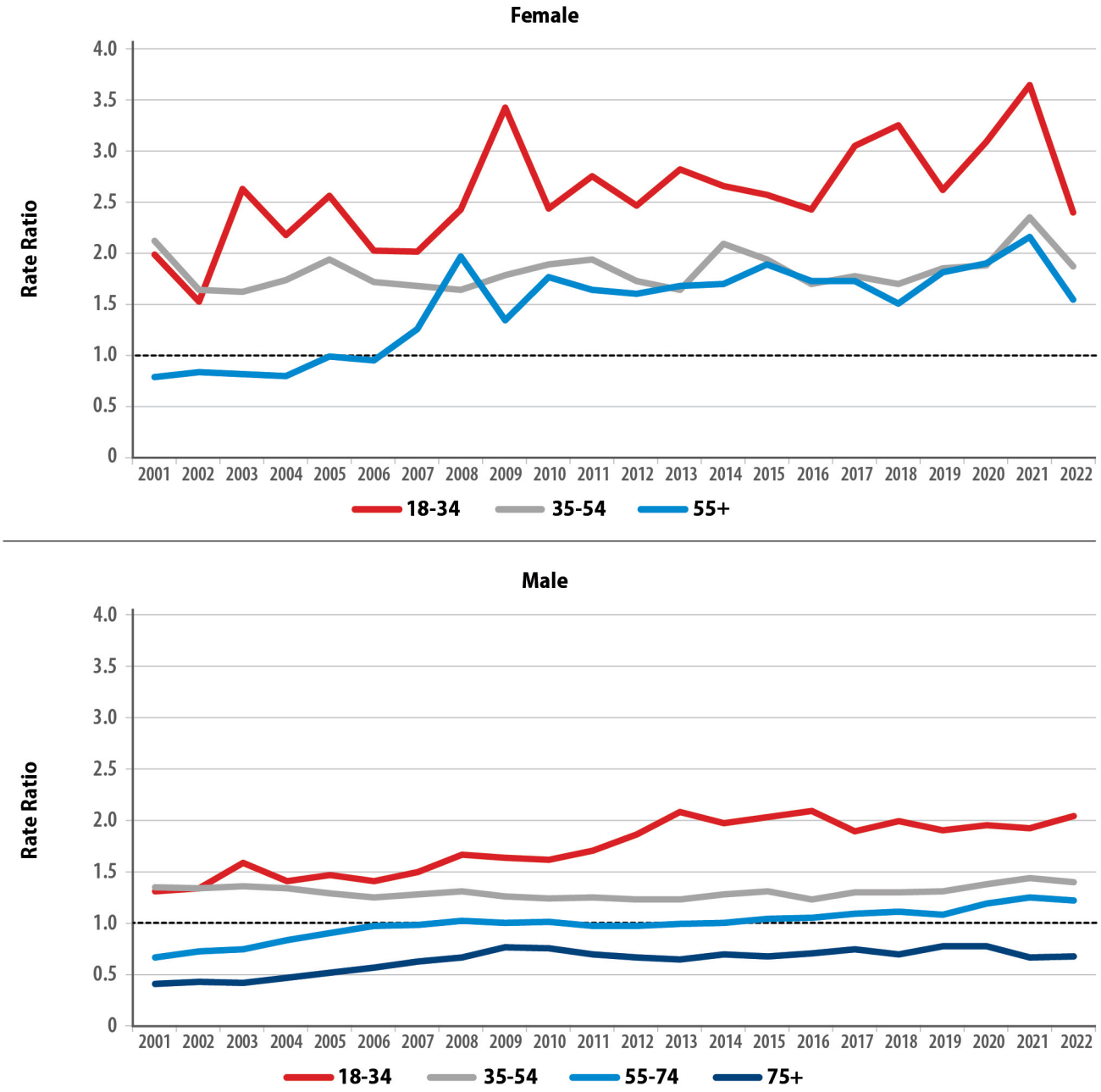
	Female Veterans	Male Veterans	All Veterans
2001–2011	+892.2	(-7,535.3)	(-6,643.1)
2012–2022	+1,545.7	+3,447.9	+4,993.6
2001–2022	+2,437.9	(-4,087.4)	(-1,649.5)

[22] As SMRs are not comparable if the index population changes over time, the 2022 Veteran population is the index for each year.

[23] This was calculated as: (Suicides that would have occurred if Veteran age- and sex-strata-specific rates in the year occurred in a population with the distribution of the Veteran population in 2022) / (Suicides that would have occurred if non-Veteran U.S. adult population's age- and sex-strata-specific rates occurred in a population with the distribution of the Veteran population in 2022).

The most informative method[24] is to compare unadjusted suicide rates for subgroups, presented here as the ratios of rates for Veterans relative to non-Veteran U.S. adults.[25] These show differentials in suicide risks by Veteran status, and how these vary by sex and age (Figure 5).[26]

Figure 5: Ratios of Age-Group-Specific Unadjusted Suicide Rates, Veterans: Non-Veteran U.S. Adults, by Sex, 2001–2022[27]



[24] These are available in the national data appendix that accompanies this report.

[25] Findings using direct and indirect adjustment may be variable due to heterogeneity in the populations and strata-specific suicide risks. It is important, therefore, to examine the ratios of strata-specific unadjusted suicide rates for Veterans relative to non-Veteran U.S. adults. See: Anderson RN, Rosenberg HM. 1998. Age Standardization of Death Rates: Implementation of the Year 2000 Standard. CDC National Vital Statistics Reports. 47(3):1-17.

[26] These present the ratio of the unadjusted suicide rate of Veterans to that of non-Veterans, for each year. Values greater than 1.0 indicate increased risk among Veterans in the age and sex group, and values less than 1.0 indicate decreased suicide risk among Veterans in the age and sex group, relative to non-Veteran adults in that particular age and sex group.

[27] Due to the small number of deaths among older age groups of female Veterans, the 55- to 74-years-old and 75-years-old and older age groups are combined, for reporting purposes.

In all years from 2001–2022, Veterans had greater suicide rates than non-Veterans among female and male individuals under age 55-years-old (rate ratio greater than 1.0). In all years, male Veterans aged 75-years-old and older had lower suicide rates than male non-Veterans in the same age group (rate ratio less than 1.0). For female and male individuals, from 2003 through 2022, the highest rate ratios were among those aged 18- to 34-years-old, indicating that for those aged 18- to 34-years-old increased rates for Veterans were most pronounced relative to those of non-Veterans.

In summary, patterns of suicide among Veteran and non-Veteran U.S. adults differ across demographic subgroups and over time. Findings suggest the importance of the role of life stressors, which may differ in prevalence and impact across different ages.[28] Information regarding differences in suicide risks across Veteran subpopulations can help guide priorities and initiatives.

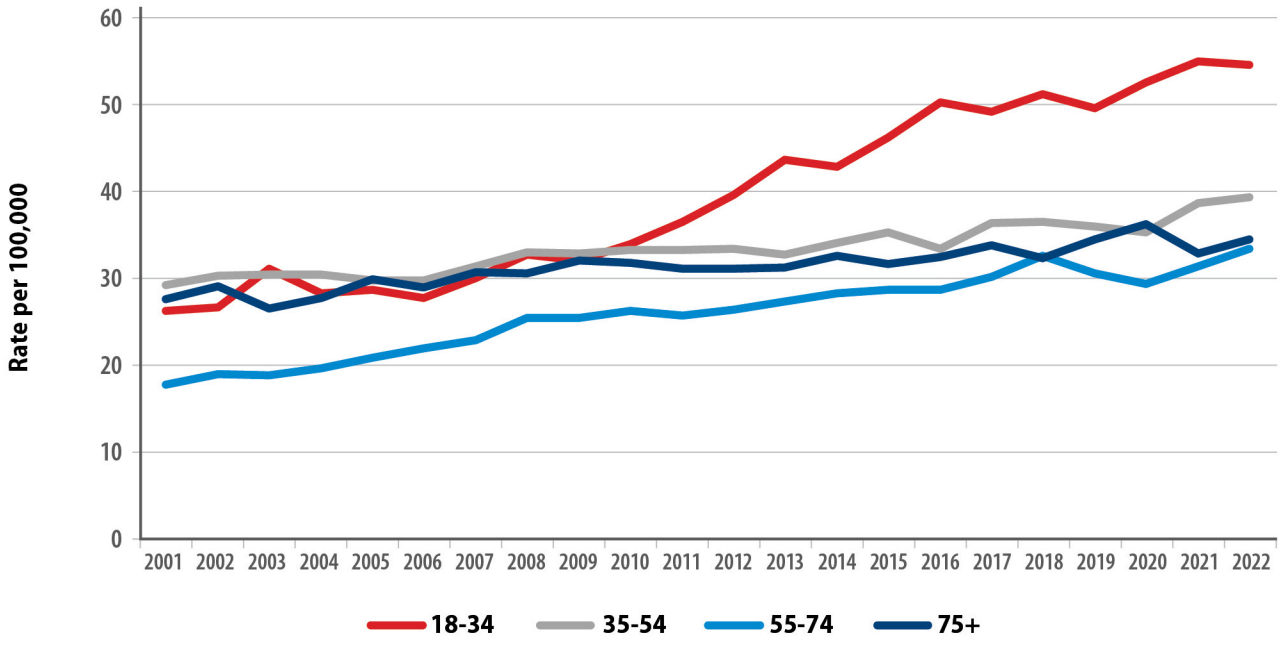
Suicide in Veteran Subpopulations

Age

Figure 6 presents unadjusted suicide rates for Veterans, by age categories and year, 2001–2022.

- From 2021 to 2022, the suicide rate among Veterans aged 18- to 34-years-old decreased by 3.8%; the rate for Veterans aged 35- to 54-years-old did not change; the rate for Veterans aged 55- to 74-years-old increased by 4.4%; and for Veterans aged 75-years-old and older, the suicide rate increased by 4.9%.

Figure 6: Unadjusted Suicide Rate, Veterans, by Age Group, 2001–2022



[28] Initially specific to the VHA patient population, in 2013, VA expanded these searches to include the entire Veteran population. In partnership with the Department of Defense (DoD), VA conducts annual searches of CDC National Death Index data. Search results are maintained in the VA/DoD Mortality Data Repository, which supports hundreds of VA and DoD mortality studies.

Sex and Age

Figures 7 and 8 present suicide rates[29] for female and male Veterans, by age categories and year, 2001–2022.

- In 2022, suicide rates were highest among Veterans between ages 18- and 34-years-old (17.1 per 100,000 among female Veterans aged 18- to 34-years-old and 54.8 per 100,000 among male Veterans aged 18- to 34-years-old).
- Suicide rates among all female Veterans in all age categories and male Veterans aged 18- to 34-years old decreased from 2021 to 2022, while rates for male Veterans aged 35 and older increased.

Figure 7: Unadjusted Suicide Rate, Female Veterans, by Age Group,[30] 2001–2022

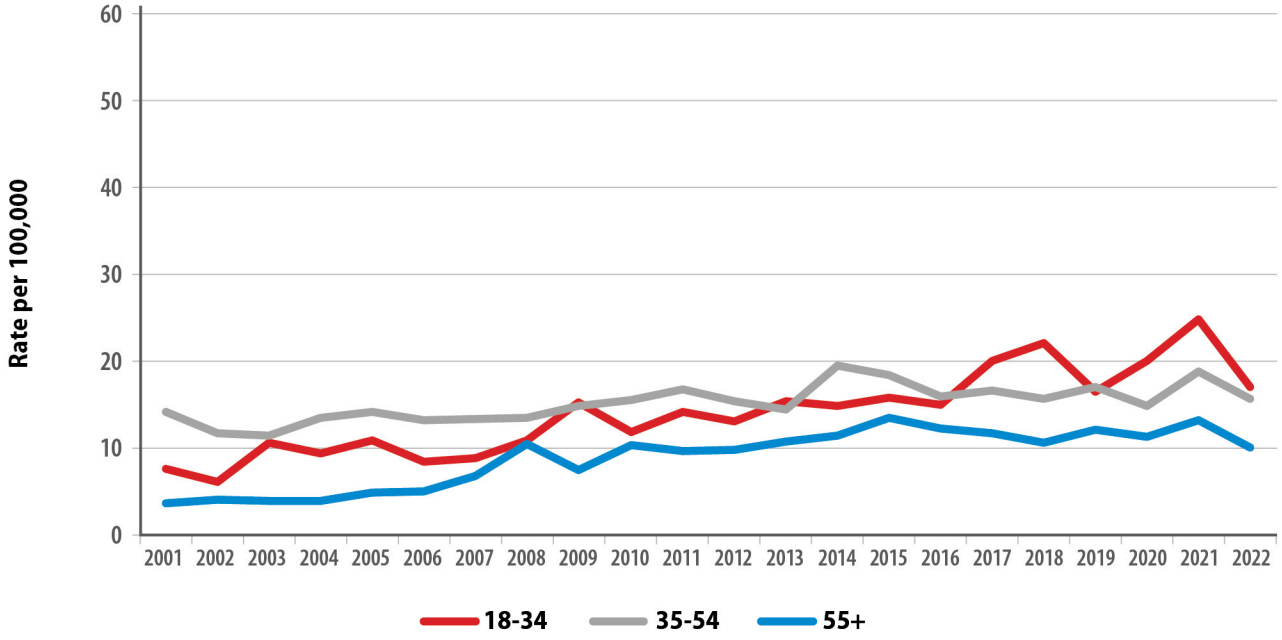
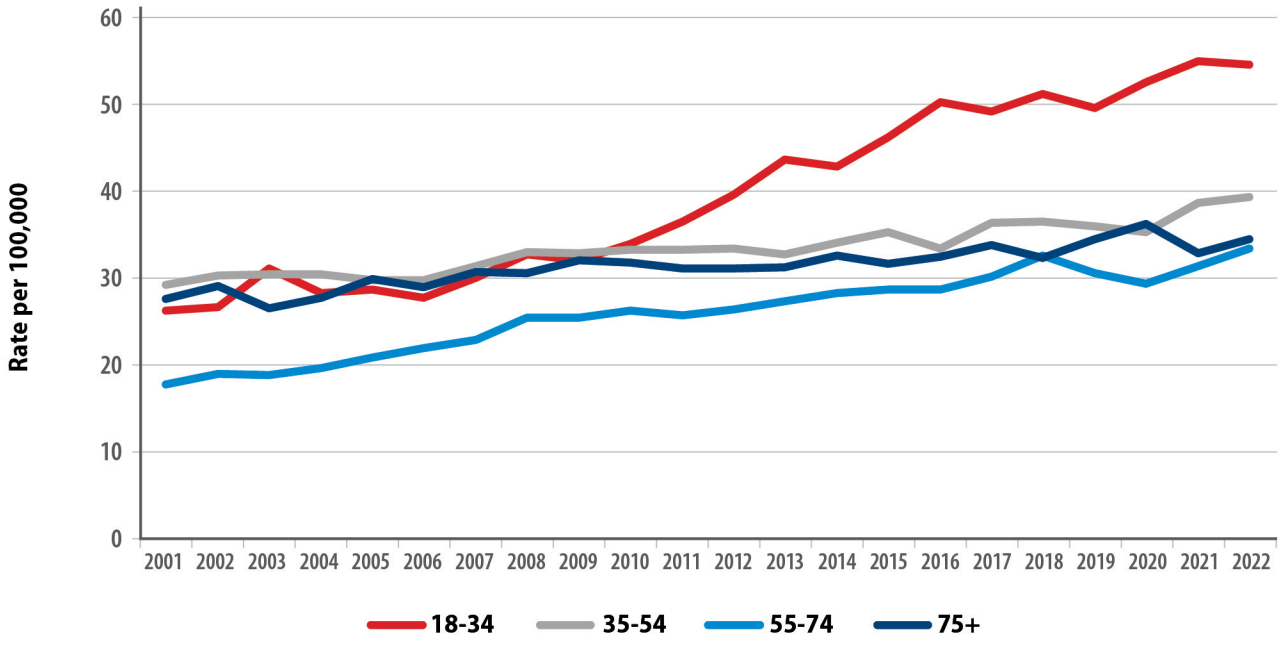


Figure 8: Unadjusted Suicide Rate, Male Veterans, by Age Group, 2001–2022



[29] As rates are specific to age- and sex-subgroups, adjustment was not applicable.

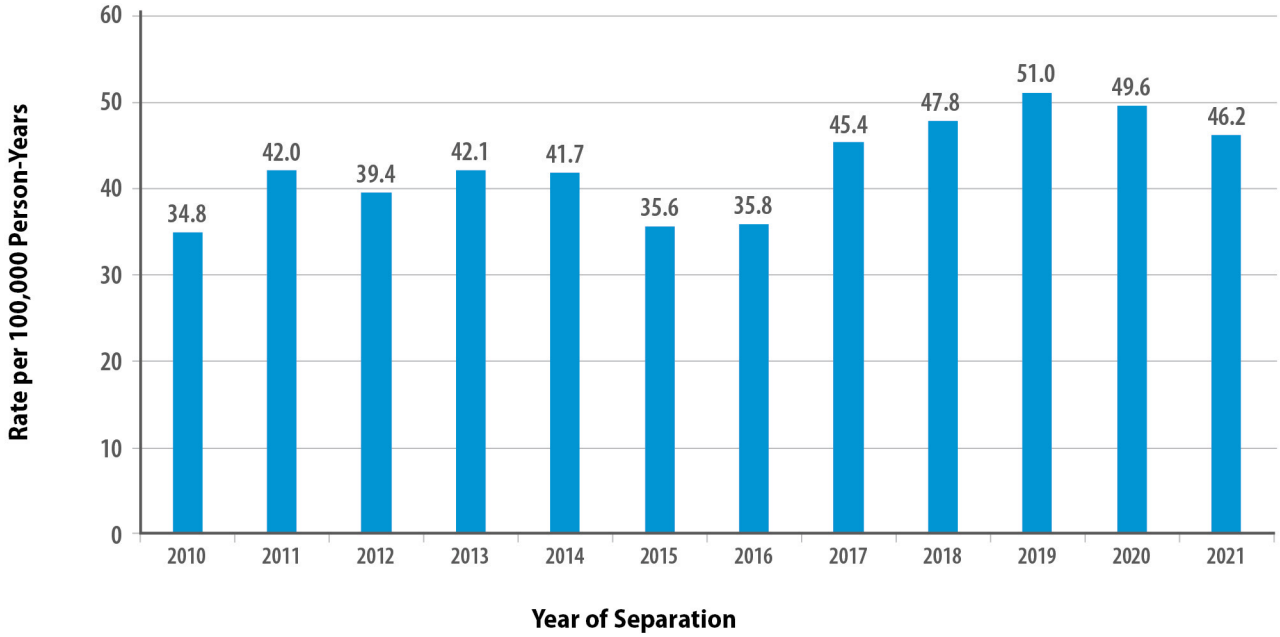
[30] Due to the small number of deaths among older age groups of female Veterans, the 55- to 74-years-old and 75-years-old and older age groups are combined, for reporting purposes.

In Year Following Military Separation

Figure 9 presents the unadjusted suicide rate per 100,000 over 12 months following Veterans' separation from active military service, by year of separation, 2010–2021.[31,32]

- Suicide rates in the 12 months following separations ranged from 34.8 per 100,000 for 2010, to 51.0 per 100,000 for Veterans who separated in 2019.

Figure 9: Unadjusted Suicide Rate, 12 Months Following Separation from Active Military Service, by Year of Separation, 2010–2021[33]



[31] Twelve-month suicide mortality rates are reported for cohorts of Veterans who separated from military service in the years 2010 through 2021. Separations were identified using VA/Department of Defense Identity Repository (VADIR) data. Reporting is not included for years prior to 2010 due to data constraints. Given small cell sizes, it was not possible to calculate adjusted rates. The 12-month observation period for the most recent cohort (separations in 2021) extended into 2022, using the most current available mortality data. Ninety-five percent confidence intervals (not shown) were overlapping for each year, indicating no statistical differences in rates.

[32] In 2010, there were 226,836 Veterans with most recent separations; there were 216,742 in 2021. For Veterans who separated in 2010, 16.8% were female and median age was 26. For those who separated in 2021, 17.6% were female and median age was 27. There were 79 and 100 Veteran suicides within 12 months of separations in 2010 and 2021, respectively.

[33] Data is reported for the final separation in the period 2010-2021. Suicide was assessed in the 12 months following separation.

Figure 10 presents unadjusted suicide rates in the 12 months following separation, by year of separation and service branch.

- For the most recent separation cohort, who separated from active military service in 2021, suicide rates over the following 12 months were highest among those who separated from the Marines Corps (67.9 per 100,000), followed by the Navy (46.9 per 100,000), Army (38.8 per 100,000), and Air Force (38.1 per 100,000).

Figure 10: Unadjusted Suicide Rate, 12 Months Following Separation from Active Military Service, by Branch of Service and Year of Separation, 2010–2021[34,35]

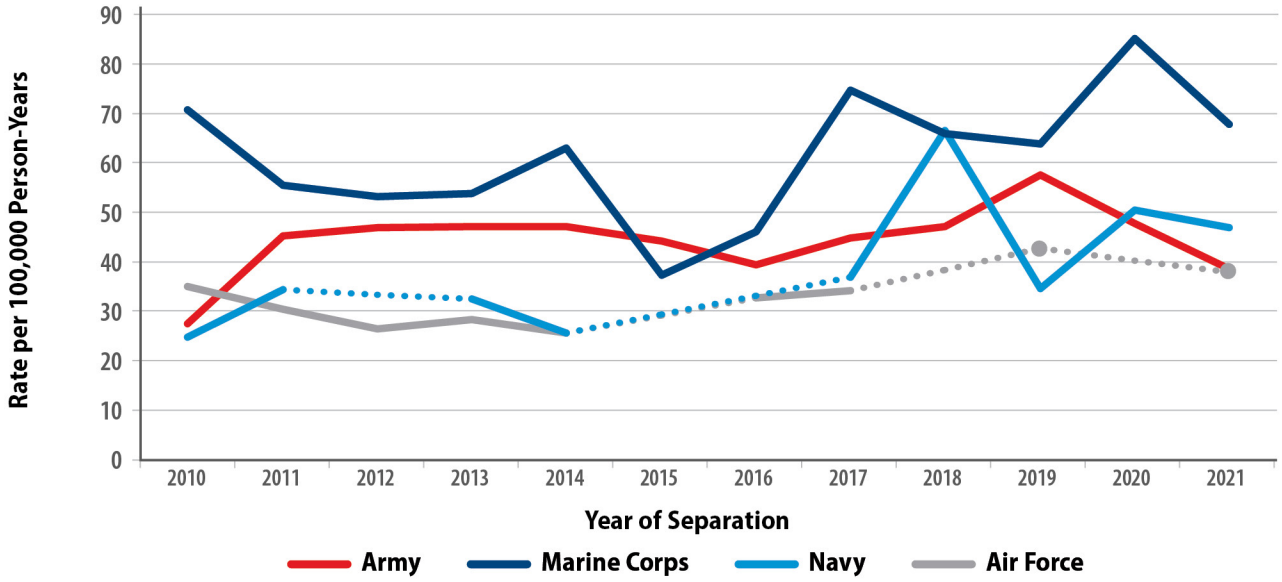
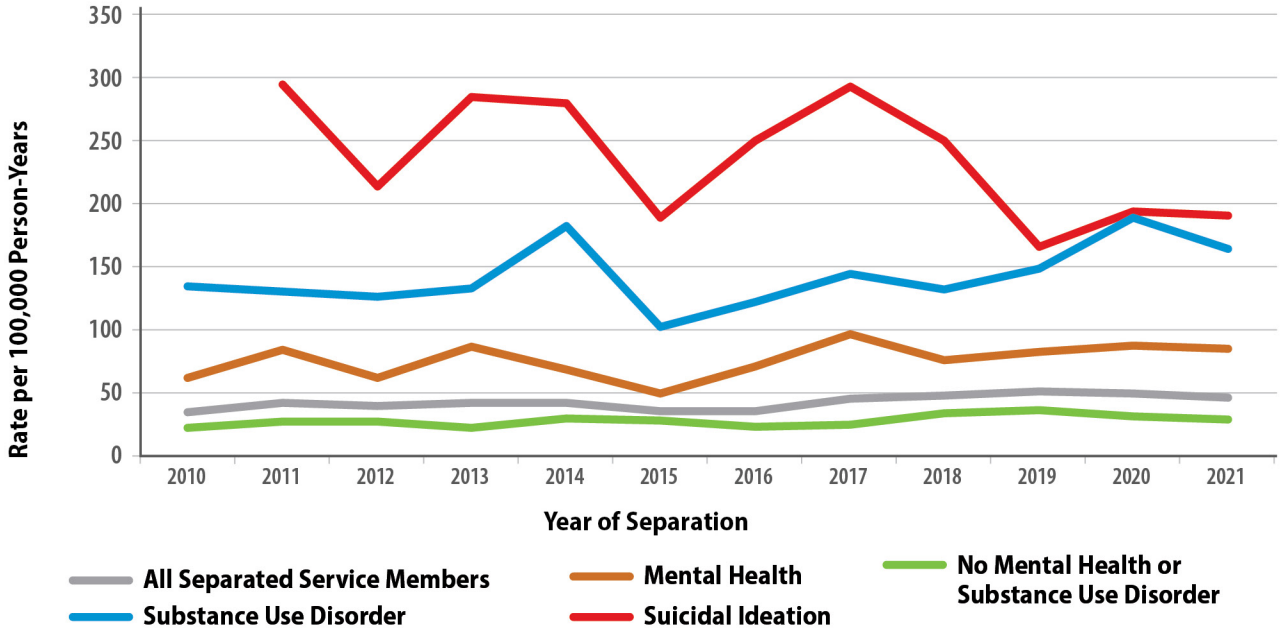


Figure 11 presents unadjusted suicide rates in the 12 months following separation, by year of separation, overall and for those with Defense Health Agency (DHA) diagnoses of suicidal ideation, SUDs, and mental health conditions.

- For the most recent separation cohort, who separated in 2021, suicide rates over the following 12 months were highest among those with DHA diagnoses of suicidal ideation (190.9 per 100,000), SUDs (164.1 per 100,000), and mental health diagnoses (84.8 per 100,000).

Figure 11: Unadjusted Suicide Rate, 12 Months Following Separation from Active Military Service, Overall and By Defense Health Agency Diagnoses in 12 Months Prior to Separation, Separation Cohorts, 2010–2021



[34] Rates are suppressed if there were fewer than 10 suicide deaths, with dotted lines connecting non-suppressed data points. The dotted lines represent suppressed rates and should not be interpreted as estimated rates.

[35] Data is reported for the final separation from active military service in the period 2010-2021. Suicide mortality is assessed in the 12 months following separation.

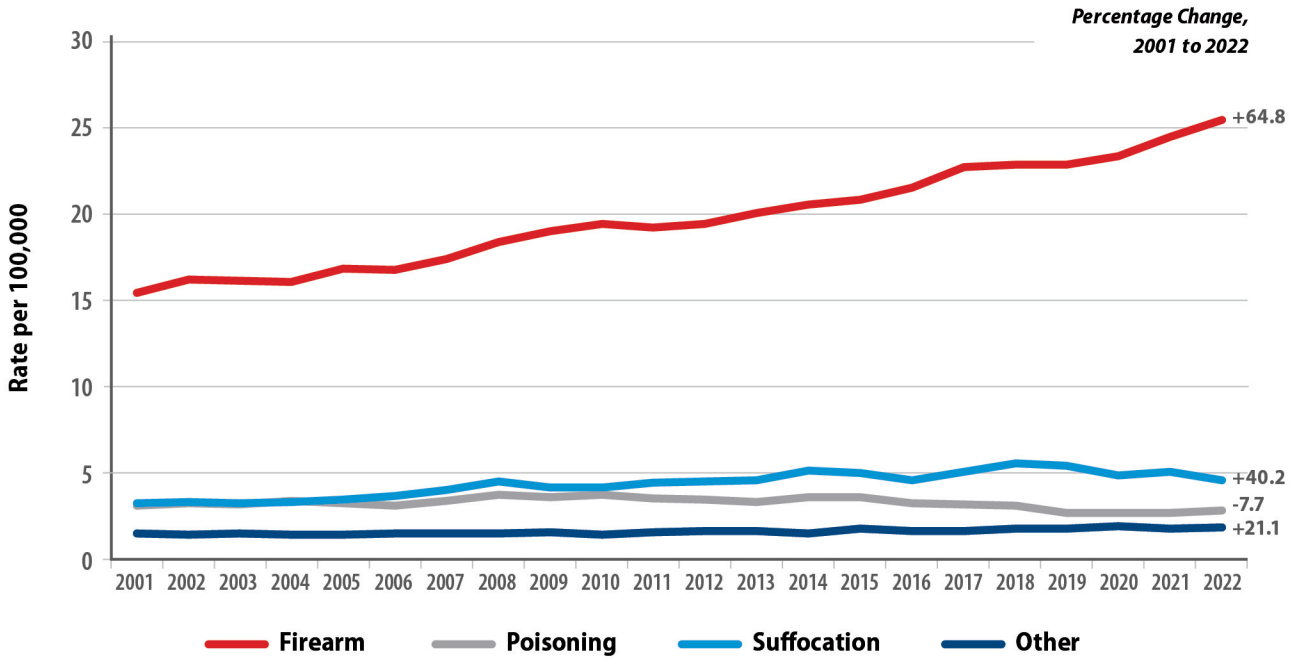
Method-Specific Suicide Rates

Figure 12 presents method-specific[36] suicide rates among Veterans, by year, 2001–2022, and the percentage change in rates from 2001–2022.

- In each year, Veteran firearm suicide rates exceeded those of all other categories.
- Changes in Veteran method-specific suicide rates are listed below:

	2001 to 2022	2020 to 2021	2021 to 2022
Firearm suicide rate	+64.9%	+4.7%	+4.0%
Poisoning suicide rate	(-7.5%)	(-1.5%)	+6.8%
Suffocation suicide rate	+40.1%	+4.3%	(-9.9%)
Other methods suicide rate	+20.8%	(-6.4%)	+2.9%

Figure 12: Unadjusted Method-Specific Suicide Rate, Veterans, 2001–2022, and Change from 2001 to 2022



Similar to patterns for Veterans, among non-Veteran U.S. adults, firearm suicide mortality rates exceeded all other method-specific suicide rates in each year.[37] For non-Veteran U.S. adults, there was also a decrease from 2001 to 2022 in poisoning suicide mortality rates (-2.6%) and increases in rates of firearm suicide mortality (+34.0%), suffocation suicide mortality (+68.7%), and suicide involving other methods (+45.0%).[38]

[36] Methods were assessed from death certificate data per ICD-10 codes X72-X74 for firearm, X60-X69 for poisoning (including intentional overdose), and X70 for suffocation (including strangulation). "Other Means" (U03, X71, X75-X84, Y87.0) included cutting/ piercing, drowning, falls, fire/flame, other land transport, being struck by/against, and other specified or unspecified injury.

[37] Results not shown.

[38] Firearms accounted for a larger portion of the overall Veteran suicide rate in 2001 and 2022 (66.5% and 73.5%, respectively) than for non-Veterans (52.7% and 52.2%, respectively).

Figures 13 and 14 show method-specific suicide rates for female and male Veterans.

Figure 13: Unadjusted Method-Specific Suicide Rate, Female Veterans, 2001–2022, and Change from 2001 to 2022[39]

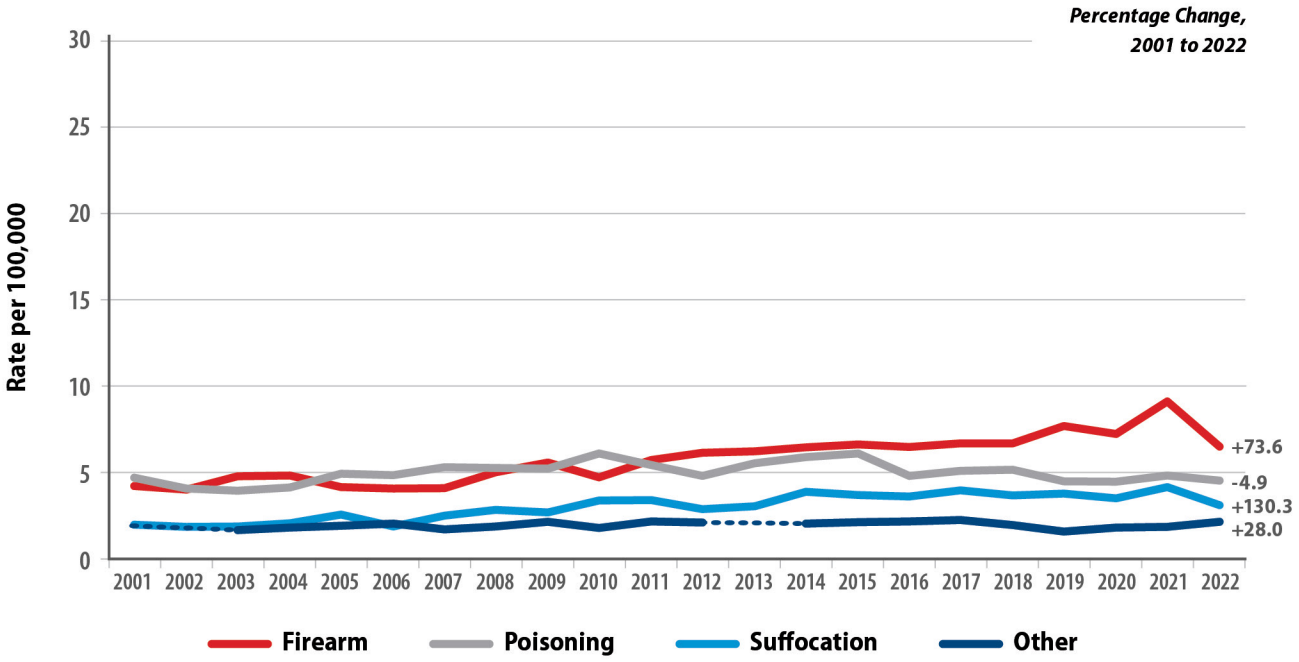
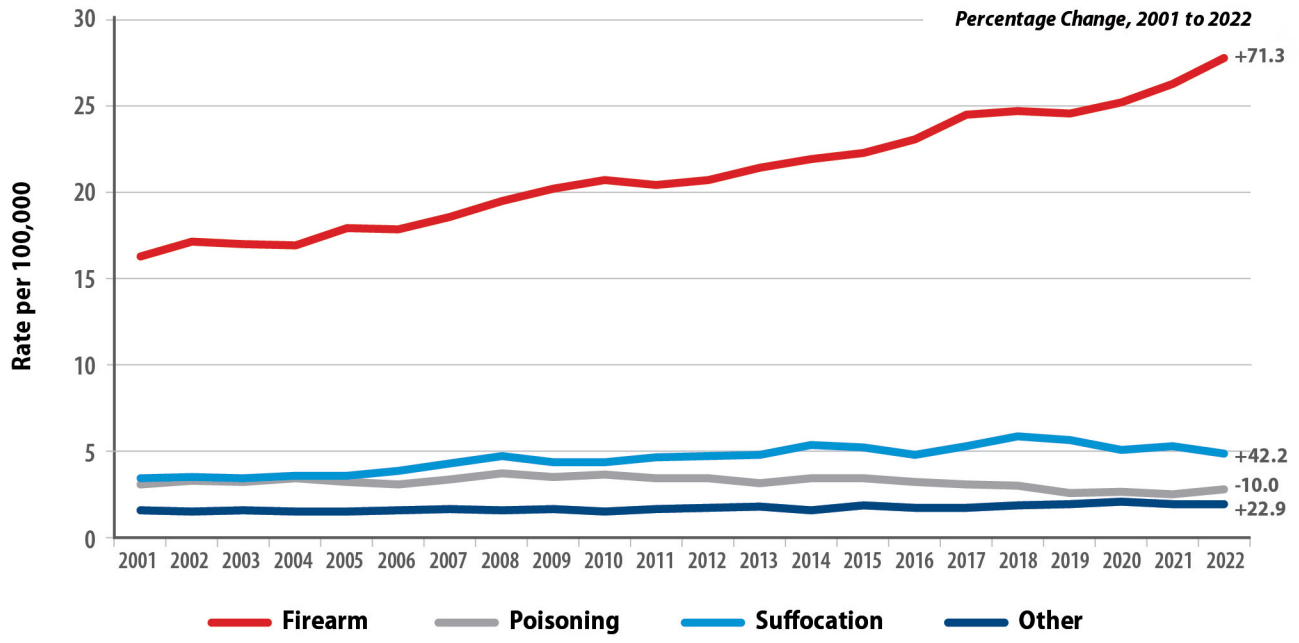


Figure 14: Unadjusted Method-Specific Suicide Rate, Male Veterans, 2001–2022, and Change from 2001 to 2022



[39] Rates are suppressed for female Veterans, Other Means, for 2002 and 2013. Dotted lines are for presentation purposes and do not represent estimated rates.

Method-Specific Suicide Rates, by Veteran Status and Sex

Here we compare method-specific rates of female Veterans and male Veterans, and we compare rates of female non-Veterans and male non-Veterans. As indicated below, method-specific suicide rates varied by sex for Veterans and non-Veterans. The magnitude of this variation differed by Veteran status.

- In each year, firearm suicide and suffocation suicide mortality rates were lower for female Veterans than for male Veterans, while poisoning suicide mortality rates were higher for female Veterans than for male Veterans. In 2022:
    - Firearm suicide rate: 356.3% higher for male Veterans than for female Veterans.
    - Suffocation suicide rate: 111.4% higher for male Veterans than for female Veterans.
    - Poisoning suicide rate: 30.0% lower for male Veterans than for female Veterans.
- In each year, all method-specific suicide rates were greater for male non-Veteran adults than for female non-Veteran adults. In 2022:
    - Firearm suicide rate: 557.6% higher for male non-Veteran adults than for female non-Veteran adults.
    - Suffocation suicide rate: 306.5% higher for male non-Veteran adults than for female non-Veteran adults.
    - Poisoning suicide rate: 6.8% higher for male non-Veteran adults than for female non-Veteran adults.

Method-Specific Suicide Rates, by Sex and Veteran Status

Here we compare method-specific rates of female Veterans to those of female non-Veterans, and we compare method-specific rates of male Veterans to those of male non-Veterans.[40] As indicated below, method-specific suicide rates varied by Veteran status, for both female and male adults. The magnitude of this variation differed by sex.

- In each year, 2001–2022, firearm suicide mortality and poisoning suicide mortality rates were higher for female Veterans than for female non-Veterans. In 2022:
    - Firearm suicide rate: 144.4% higher for female Veterans than for female non-Veterans.
    - Poisoning suicide rate: 75.9% higher for female Veterans than for female non-Veterans.
    - The suffocation suicide rate in 2022 was 23.9% higher for female Veterans than for female non-Veteran adults.[41]
- In each year, 2001–2022, firearm suicide mortality and poisoning suicide mortality rates were higher, and suffocation mortality rates were lower, for male Veterans than for male non-Veteran adults. In 2022:
    - Firearm suicide rate: 69.6% higher for male Veterans than for male non-Veteran adults.
    - Poisoning suicide rate: 15.3% higher for male Veterans than for male non-Veteran adults.
    - Suffocation suicide rate: 35.6% lower for male Veterans than for male non-Veteran adults.

[40] Compared to non-Veteran adults, Veterans are more likely to own firearms. Estimates derived from 2015 National Firearm Survey reports and VetPop data suggest that in 2015, firearm ownership was approximately 107% higher for female Veterans than for female non-Veteran adults, and it was approximately 62% higher for male Veterans than for male non-Veteran adults.

[41] This direction and scale of this differential ranged from 2006, when female Veterans had a 13.7% lower rate of suffocation suicide than female non-Veteran adults, to 2021, when female Veterans had an 88.0% higher suffocation suicide rate than female non-Veteran adults.

Lethal Means Involved in Suicide Deaths

Table 2 provides information on lethal means, or methods, involved in suicide deaths of Veterans and non-Veteran U.S. adults in 2022 and a measure of change compared to suicides in 2001.

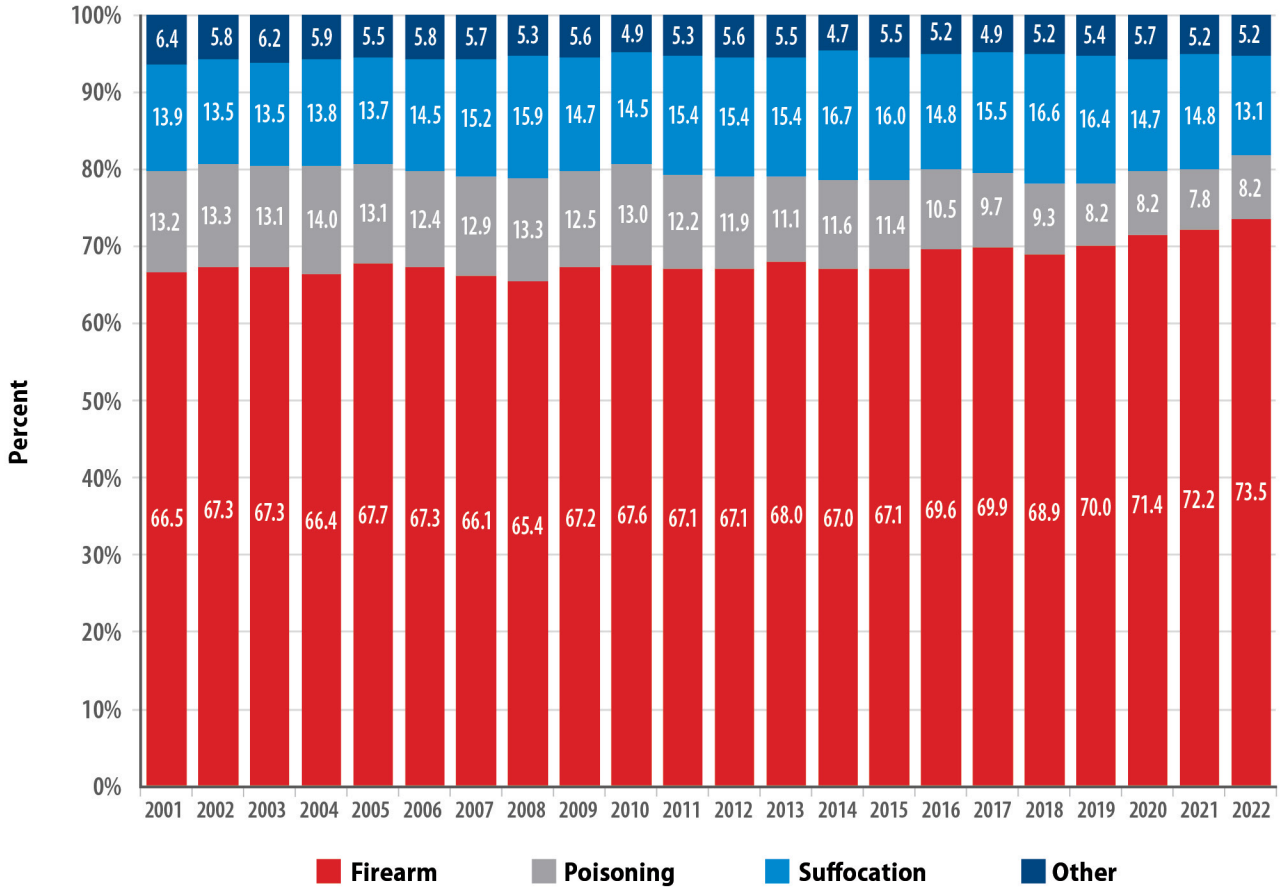
Table 2: Suicide Deaths, Methods Involved, 2022 and Difference From 2001, U.S. Adults, by Veteran Status, Sex and Age Groups[42]

	Veterans		Adults		Female Veterans		Female Non-Veterans		Male Veterans		Male Non-Veterans	
	2022	Change	2022	Change	2022	Change	2022	Change	2022	Change	2022	Change
All Ages												
Firearms	73.5%	+7.1%	52.2%	-0.5%	74.8%	+7.5%	57.4%	-0.7%	45.4%	+8.4%	34.5%	-0.9%
Poisoning	8.2%	-5.0%	13.3%	-5.2%	7.3%	-5.2%	8.2%	-4.1%	28.8%	-14.1%	30.4%	-7.7%
Suffocation	13.1%	-0.8%	25.9%	+5.1%	12.9%	-1.1%	26.1%	+3.7%	17.0%	+6.6%	25.4%	+9.6%
Other	5.2%	-1.2%	8.7%	+0.6%	5.0%	-1.3%	8.4%	+1.1%	8.9%	-0.9%	9.7%	-1.0%
Ages 18–34												
Firearms	67.4%	+6.5%	50.1%	-1.5%	68.7%	+6.55	54.7%	+0.1%	50.0%	+13.3%	32.4%	-3.4%
Poisoning	6.8%	-4.5%	9.6%	-3.1%	5.8%	-4.3%	6.4%	-2.9%	20.7%	-16.0%	22.1%	-8.4%
Suffocation	19.9%	-2.2%	31.0%	+2.6%	19.6%	-2.9%	29.9%	+0.6%	24.1%	--	35.3%	+11.2%
Other	5.9%	+0.2%	9.3%	+2.0%	5.9%	+0.7%	9.0%	+2.2%	--	--	10.2%	+0.5%
Ages 35–54												
Firearms	63.1%	+8.7%	45.8%	-0.8%	64.8%	+9.7%	49.3%	-2.6%	41.6%	+2.4%	34.5%	+1.9%
Poisoning	10.2%	-8.8%	14.0%	-10.9%	8.7%	-9.1%	9.1%	-8.4%	28.8%	-17.0%	29.7%	-14.5%
Suffocation	20.1%	+0.7%	31.3%	+11.4%	20.2%	+0.3%	32.7%	+10.3	19.2%	--	26.6%	+13.6%
Other	6.6%	-0.6%	9.0%	+0.3%	6.3%	-0.9%	8.9%	+0.8%	10.4%	--	9.2%	-1.0%
Ages 55–74												
Firearms	74.4%	-1.5%	57.0%	-6.0%	75.3%	-1.0%	64.0%	-7.1%	50.0%	--	35.8%	-6.1%
Poisoning	9.2%	-0.8%	16.4%	-0.4%	8.3%	-1.4%	9.6%	+0.1%	32.9%	--	36.8%	1.4%
Suffocation	11.6%	+3.2%	18.1%	+6.1%	11.7%	+3.3%	18.5%	+6.2%	--	--	17.1%	5.7%
Other	4.8%	-0.9%	8.5%	+0.3%	4.7%	-1.0%	7.9%	+0.9%	--	--	10.2%	-1.0%
Ages 75+												
Firearms	86.4%	+4.9%	71.2%	+2.4%	86.6%	+4.9%	78.8%	+0.4%	--	--	37.8%	+1.8%
Poisoning	5.4%	-1.1%	13.5%	+3.2%	5.2%	-1.3%	7.2%	+2.0%	--	--	40.9%	+13.5%
Suffocation	4.3%	-1.7%	9.5%	-3.6%	4.3%	-1.6%	8.7%	-2.3%	--	--	13.3%	-7.2%
Other	3.9%	-2.2%	5.8%	-2.0%	3.9%	-2.1%	5.3%	-0.1%	--	--	8.1%	-8.2%

[42] "Change" is the absolute difference comparing the percentage of suicide deaths in 2022 to the percentage of suicide deaths in 2001. Percentages and differences are not presented when based on fewer than 10 deaths, indicated by "--".

Figure 15 presents the distribution of methods involved in Veteran suicide deaths, from 2001–2022.

Figure 15: Methods Involved, Percentage, Veteran Suicide Deaths, 2001–2022



- From 2021 to 2022, among Veteran suicide deaths, the involvement of firearms and poisoning increased from 72.2% to 73.5% and 7.8% to 8.2%, respectively, while the involvement of suffocation decreased from 14.8% to 13.1%.
- In 2022, firearms were involved in 45.4% of suicides by female Veterans, down from 51.6% in 2021, and in 74.8% of suicides by male Veterans, up from 73.4% in 2021.
- Among non-Veteran U.S. adults from 2021 to 2022, involvement of poisoning increased from 12.4% to 13.3% and other methods increased from 8.6% to 8.7%, while suffocation decreased, from 26.8% to 25.9%.
- Considering trends from 2019, prior to the first year of the COVID-19 pandemic, from 2019 to 2022, among Veteran suicide deaths, the involvement of firearms increased from 70.0% to 73.5%, while the involvement of suffocation and other methods decreased, from 16.4% to 13.1% and 5.4% to 5.2%, respectively. Among non-Veteran U.S. adults from 2019 to 2022, involvement of firearms increased from 47.6% to 52.2%, while poisoning and suffocation decreased, from 13.9% to 13.3% and 29.7% to 25.9%, respectively.

Section B: Veterans with VHA or VBA Contact

Findings include suicide rates for annual cohorts of Veterans who received VHA health care[43] in the year or prior year, who in this report are described as "Recent Veteran VHA Users" or as "VHA Veterans," including by demographic and clinical subgroups, rurality, VHA enrollment, and VA eligibility priority groups. Rates are also included for Veterans by receipt of VBA benefits and for Veteran subgroups defined by receipt of VBA or VHA services. For Veterans who died from suicide in 2022, we report on points of VA contact, including receipt of VHA health care, VHA enrollment, and receipt of VBA services.

Veterans Affairs Health Care

VHA Health Care Engagement, 2001–2022

From 2001 to 2022, the Veteran population decreased by 28.4%. Over these years, VA continued to expand health care eligibility,[44] and there were substantial increases in Veteran receipt of VHA health care. Despite decreases in the overall Veteran population, the number of Veterans with VHA health care encounters in the year or prior year (Recent Veteran VHA Users) rose 61.9%, from 3.8 million in 2001 to 6.2 million in 2022. In 2022, Recent Veteran VHA Users accounted for 33.7% of all Veterans, up from 14.9% in 2001.

As noted previously, prior studies document population differences between Veterans with versus without VHA health care services utilization, consistent with a greater concentration of potential suicide risk factors among Veterans who are served by VHA health care providers. As a population, these Veterans have been found to be more likely to be unmarried, to use tobacco, to have received less formal education, have lower incomes, poorer self-reported health status,[45] more chronic medical conditions[46] and self-reported disability due to physical or mental health factors,[47] greater depression and anxiety,[48] and greater reporting of trauma, lifetime psychopathology, and current suicidality.[49] To inform Veteran suicide prevention approaches—including clinical- and community-focused initiatives—we continue to work to understand trends in suicide mortality among Recent Veteran VHA Users and among Other Veterans.

[43] VHA health care receipt is here defined as having at least one VHA inpatient or outpatient utilization record, per VHA Corporate Data Warehouse records. VHA health care is regarded "as good as or better than non-VA care in terms of clinical quality and safety." See: Apaydin EA, Paige NM, Begashaw MM, Larkin J, Miake-Lye IM, Shekelle PG. 2023. Veterans Health Administration (VA) vs. Non-VA Healthcare Quality: A Systematic Review. J Gen Intern Med. doi: 10.1007/s11606-023-08207-2. O'Hanlon C, Huang C, Sloss E, et al. 2016. Comparing VA and Non-VA Quality of Care: A Systematic Review. J Gen Intern Med. 32(1):105-121.

[44] For example, the National Defense Authorization Act of 2008 extended the period of eligibility for health care for Veterans who had served in a theater of combat operations after 11/11/1998 to five years following discharge or release. Qualifying Veterans would be eligible for enrollment in Priority Group 6 unless eligible for enrollment in a higher priority group.

[45] Agha Z, Lofgren RP, VanRuiswyk JV, Layde PM. 2000. Are Patients at Veterans Affairs Medical Centers Sicker? A Comparative Analysis of Health Status and Medical Resource Use. Arch Intern Med. 160:3252-3257.

[46] Dursa EK, Barth SK, Bossarte RM, Schneiderman AI. 2016. Demographic, Military, and Health Characteristics of VA Health Care Users and Nonusers Who Served in or During Operation Enduring Freedom or Operation Iraqi Freedom, 2009-2011. Public Health Reports. 131(6):839-843.

[47] Nelson KM, Starkebaum GA, Reiber GE. 2007. Veterans Using and Uninsured Veterans Not Using Veterans Affairs (VA) Health Care. Public Health Rep. 122:93-100.

[48] Fink DS, Stohl M, Mannes ZL, Shmulewitz D, Wall M, Gutkind S, Olfson M, Gradus J, Keyhani S, Maynard C, Keyes KM, Sherman S, Martins S, Saxon AJ, Hasin DS. 2022. Comparing Mental and Physical Health of U.S. Veterans by VA Healthcare Use: Implications for Generalizability of Research in the VA Electronic Health Records. BMC Health Services Research. 22:1500 https://doi.org/10.1186/s12913-022-08899-y.

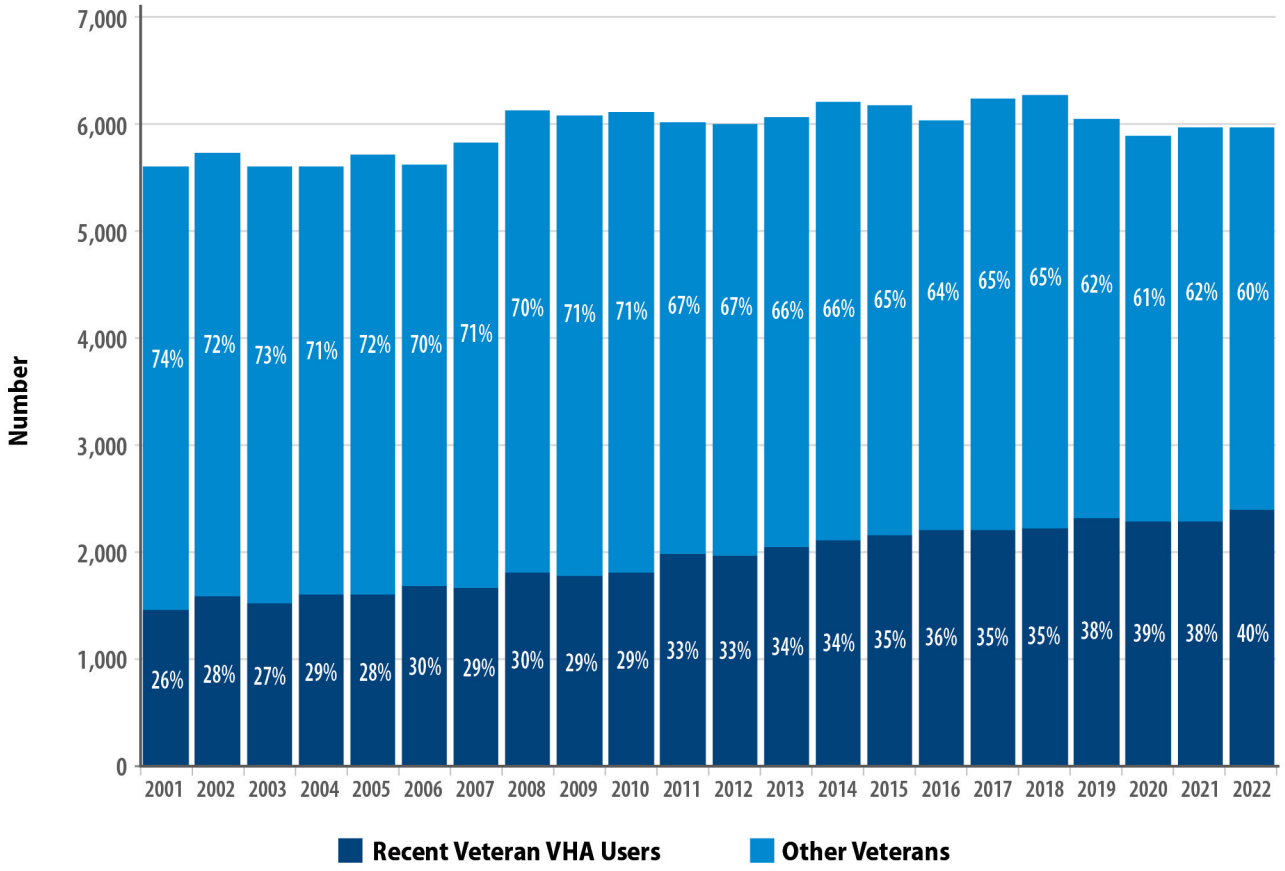
[49] Meffert BN, Morabito DM, Sawicki DA, Hausman C, Southwick SM, Pietrzak RH, Heinz AJ. 2019. U.S. Veterans Who Do and Do Not Utilize VA Health Care Services: Demographic, Military, Medical, and Psychosocial Characteristics. Primary Care Companion CNS Disorders. 21(1):doi:10.4088/PCC.18m02350.

Suicide Deaths

Figure 16 presents the annual number of Veteran suicide deaths, 2001–2022, and the percentage among Recent Veteran VHA Users (VHA Veterans) and Other Veterans.

- Among Veteran suicide decedents, the percentage with recent VHA encounters increased from 26.2% in 2001 to 40.1% in 2022.

Figure 16: Veteran Suicide Decedents, Number and Percentage With and Without Recent VHA Health Care Encounters,[50] 2001–2022



[50] With a VHA inpatient or outpatient health care encounter in the year of interest or the prior year.

Suicide Rates

Age and Sex

Table 3 presents changes in suicide rates from 2001 to 2022 and from 2021 to 2022 for age- and sex-subgroups of Recent Veteran VHA Users and Other Veterans.

Table 3: Suicide Rate per 100,000, Change from 2001 to 2022 and from 2021 to 2022, Veteran VHA Users and Other Veterans, by Sex and Age[51]

	2001	2022	Change	2021	2022	Change
Recent Veteran VHA Users						
Female						
Aged 18-34	--	17.5	--	37.44	17.5	-53.3%
Aged 35-54	17.2	19.2	+11.6%	20.78	19.2	-7.6%
Aged 55-74	--	14.4	--	11.57	14.4	+24.2%
Aged 75+	--	--	--	--	--	--
Male						
Aged 18-34	35.6	68.7	+92.9%	64.5	68.7	+6.6%
Aged 35-54	52.2	47.0	-9.9%	48.2	47.0	-2.5%
Aged 55-74	36.5	34.7	-5.0%	32.2	34.7	+7.9%
Aged 75+	43.9	51.2	+16.7%	48.4	51.2	+5.8%
Other Veterans						
Female						
Aged 18-34	7.3	16.9	+131.6%	18.7	16.9	-9.6%
Aged 35-54	13.4	13.5	+0.7%	17.7	13.5	-23.5%
Aged 55-74	--	9.4	--	15.8	9.4	-40.7%
Aged 75+	--	--	--	--	--	--
Male						
Aged 18-34	25.5	49.5	+93.8%	51.8	49.5	-4.5%
Aged 35-54	26.0	36.3	+39.9%	35.1	36.3	+3.6%
Aged 55-74	14.2	33.0	+132.4%	31.3	33.0	+5.2%
Aged 75+	23.8	26.6	+11.4%	26.3	26.6	+1.1%

[51] Rates are suppressed if there were fewer than 10 suicide deaths, and rates are more variable for smaller Veteran subpopulations.

Figure 17 presents age-adjusted suicide rates for Veterans, by sex, overall and by recent VHA care, and for non-Veteran U.S. adults, 2001–2022.

Figure 17: Age-Adjusted Suicide Rate, Veterans, by Sex, Overall and by Recent VHA Care, and Non-Veteran U.S. Adults, by Sex, 2001–2022

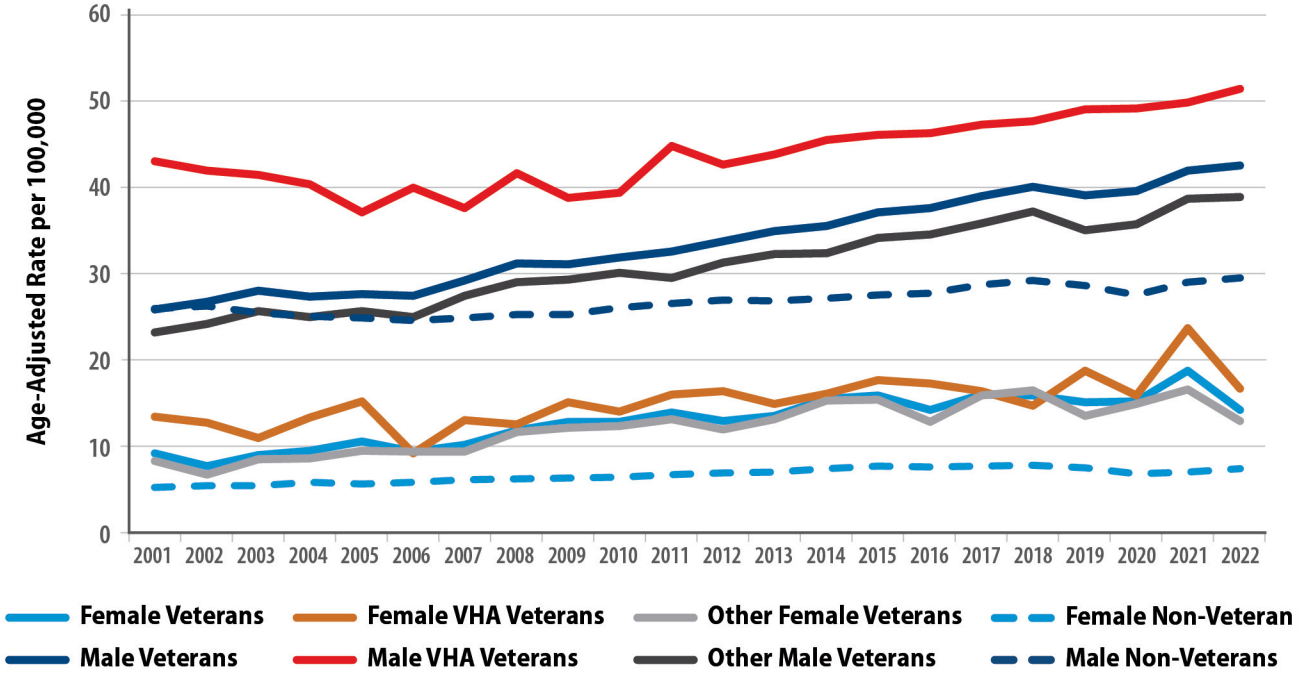
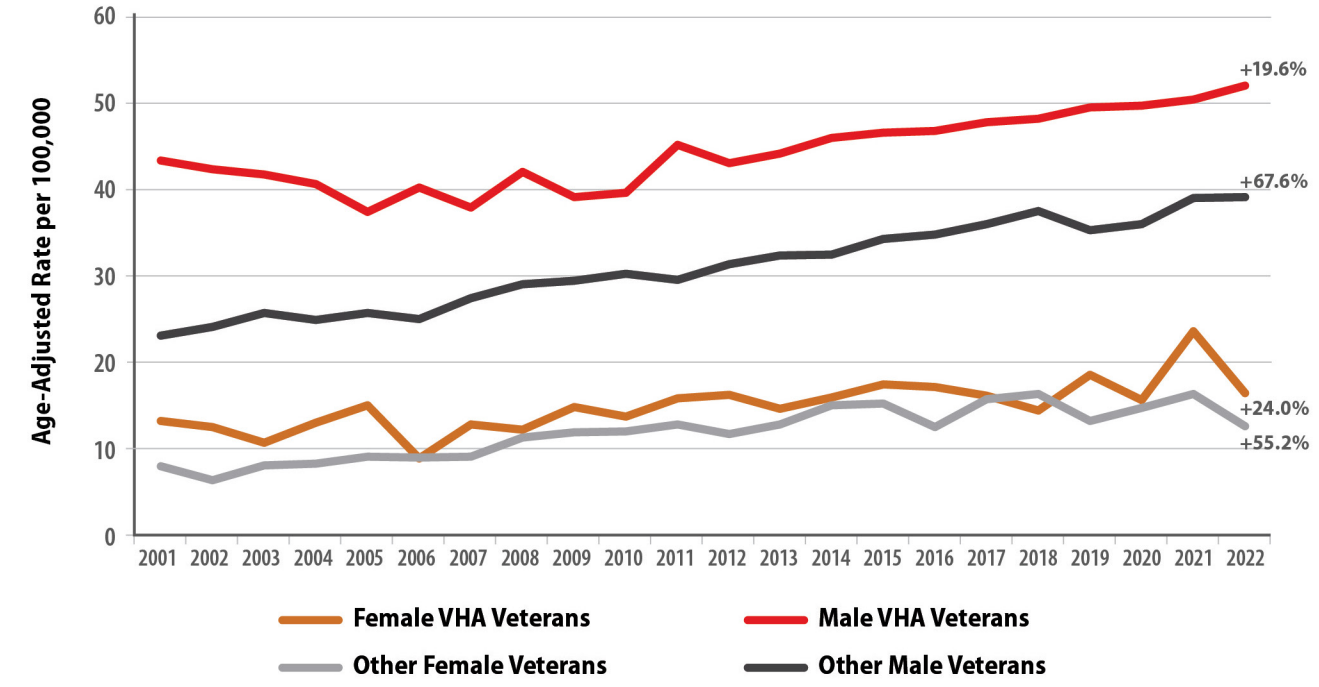


Figure 18 presents age-adjusted suicide rates for Recent Veteran VHA Users and for Other Veterans, 2001–2022, and the percentage increase in rates, from 2001 to 2022.

Figure 18: Age-Adjusted Suicide Rate,[52] Veterans, by Sex and Recent VHA Care, 2001–2022, and Change from 2001 to 2022



[52] Adjusted using the direct method and the 2000 U.S. population as the standard.

Table 4 presents comparisons, by sex, of age-adjusted suicide rates.

- From 2021 to 2022, age-adjusted rates fell for female Veterans in VHA care (-29.6%) and for female Veterans who were not Recent Veteran VHA Users (-22.0%). Concurrently, rates rose for both male Recent Veteran VHA Users (+3.2%) and male Veterans who were not Recent Veteran VHA users (+0.4%).
- From 2001 to 2022, age-adjusted suicide rates rose for all groups.

Table 4: Age-Adjusted Suicide Rate per 100,000, Change from 2001 to 2022 and from 2020 to 2022, Veteran VHA Users and Other Veterans, by Sex

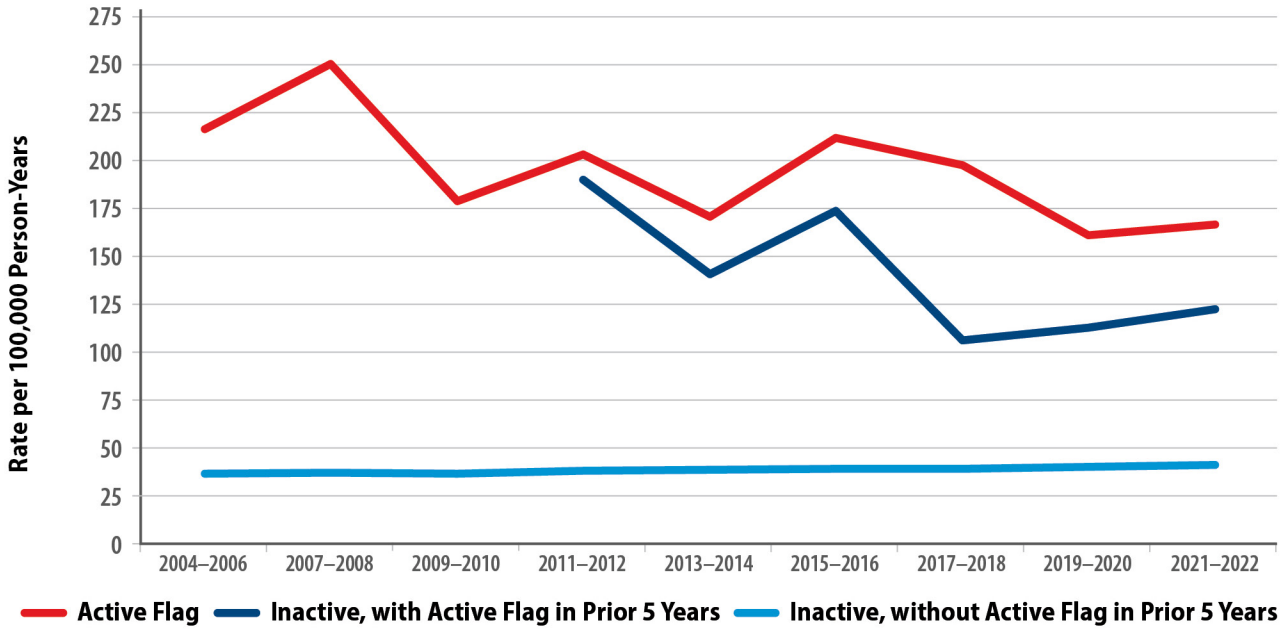
	2001	2022	Change	2021	2022	Change
Recent Veteran VHA Users						
Female	13.4	16.7	+24.0%	23.7	16.7	-29.6%
Male	43.1	51.6	+19.6%	50.0	51.6	+3.2%
Other Veterans						
Female	8.3	12.9	+55.2%	16.6	12.9	-22.0%
Male	23.2	38.9	+67.6%	38.8	38.9	+0.4%

Behavioral Patient Record Flag

Veterans in VHA care may receive Behavioral Patient Record Flags related to behavior that is intimidating, threatening, or dangerous or could put at risk the health and safety of health care workers, other patients, or other individuals.[53] VA is not authorized to refuse to deliver care,[54] and over many years, VA has developed strategies to provide care options that minimize risk while ensuring services delivery for the vulnerable population of Veterans with disruptive and assaultive behavior.[55] Over time, VA has enhanced systems for gathering and monitoring reports regarding disruptive behavior.[56]

Figure 19 presents suicide rates among Recent Veteran VHA Users with Behavioral Patient Record Flag-related indicators.[57]

Figure 19: Unadjusted Suicide Rate, Recent Veteran VHA Users, by Behavioral Patient Record Flag Status, for 3- and 2-Year Periods, 2004–2022



[53] Semeah L, Cowper-Ripley D, Freytes M, Jia H, Uphold C, Hart D, Campbell C. 2019. Occupational Hazard: Disruptive Behavior in Patients. Federal Practitioner. 36(4):158-163.

[54] Hodgson MJ, Mohr DC, Drummond DJ, Bell M, Van Male L. Managing Disruptive Patients in Health Care: Necessary Solutions to a Difficult Problem. 2012. American Journal of Industrial Medicine. 55:1009-1017.

[55] Blow FC, Barry KL, Copeland LA, McCormick RA, Lehmann LS, Ullman E. Repeated Assaults by Patients in VA Hospital and Clinic Settings. 1999. Psychiatric Services. 50:390-394.

[56] Hutton S, Vance K, Loftus SM, Roth G, Van Male LM. 2023. National Development and Implementation of a Democratized Disruptive Behavior Reporting System in Health Care. J Medical Systems. 47:104. https://doi.org/10.1007/s10916-023-01999-0.

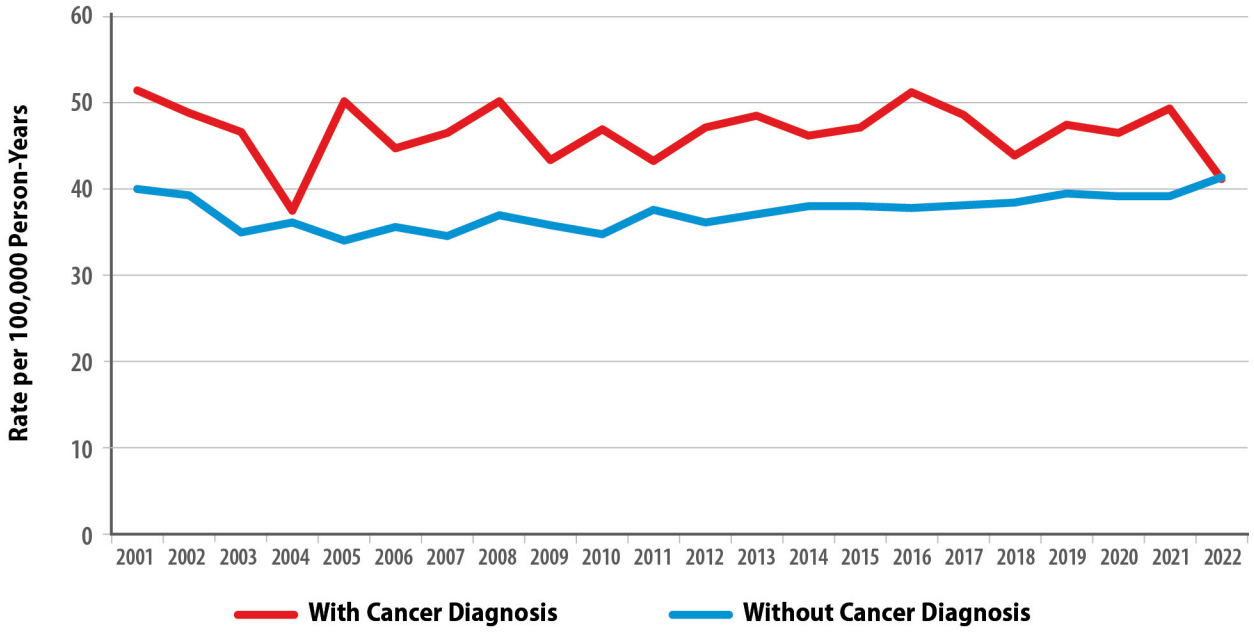
[57] There were 23,187 Veterans who had an active Behavioral Patient Record Flag in the period 2021–2022.

Cancer

Cancer diagnoses are associated with increased suicide risks.[58,59] Figure 20 presents suicide rates for Recent Veteran VHA Users with cancer diagnoses.

- Between 2001 and 2021, unadjusted suicide rates among Recent Veteran VHA Users were greater for those with cancer diagnoses compared to those without cancer diagnoses. In 2022, the rate for Veterans with cancer diagnoses was 0.5% lower than for Veterans without cancer diagnoses.
- From 2021 to 2022, the suicide rate for Recent Veteran VHA Users with cancer diagnoses fell 16.7%, from 49.5 per 100,000 to 41.3 per 100,000.

Figure 20: Unadjusted Suicide Rate, Veteran VHA Users, by Cancer Diagnosis Status, 2001–2022[60]



[58] Amiri S, Behnezhad S. 2019. Cancer Diagnosis and Suicide Mortality: A Systematic Review and Meta-Analysis. Archives of Suicide Research. 0:1-19.

[59] Dent KR, Szymanski BR, Kelley MJ, Katz IR, McCarthy JF. 2023. Suicide Risk Following a New Cancer Diagnosis Among Veterans in Veterans Health Administration Care. Cancer Medicine.12(3):3520-3531.

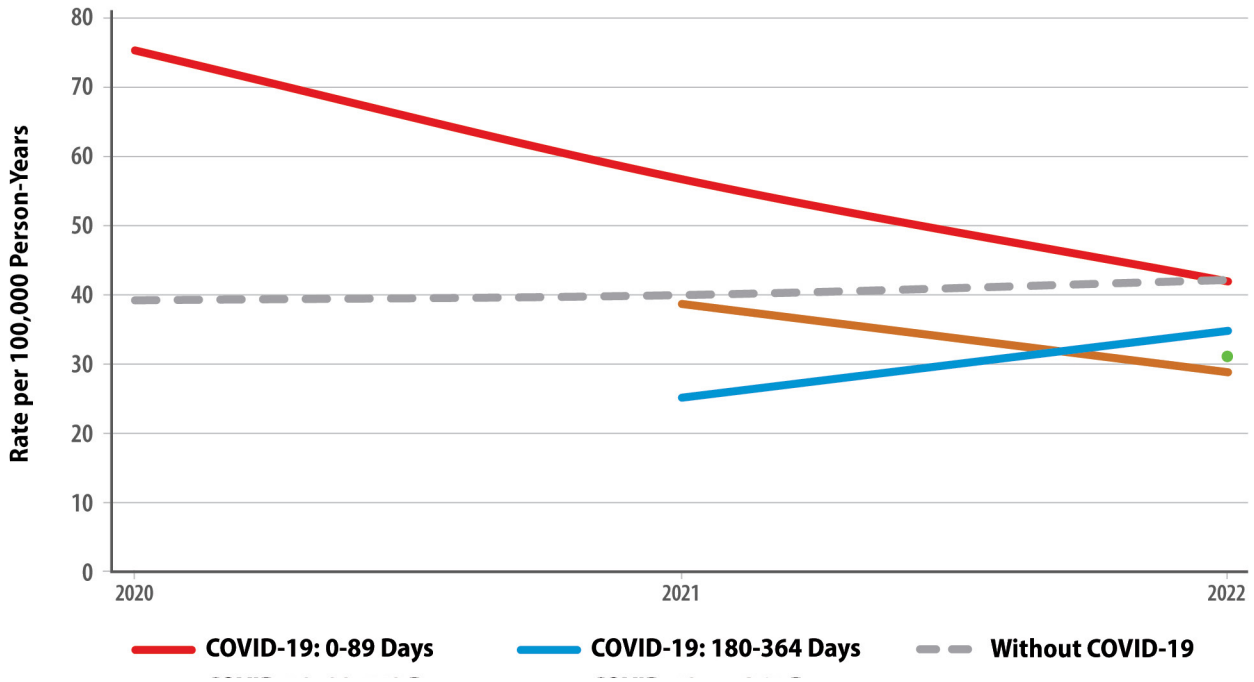
[60] Cancer diagnoses are defined as any ICD-10 cancer diagnosis present in the year or year prior. Cancer diagnoses include all reportable subtypes as specified by the National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER) Program: https://seer.cancer.gov/tools/conversion/.

COVID-19

In the first year of the COVID-19 pandemic, Veterans in VHA care were at increased risk for suicide attempts and other self-directed violence, particularly in the first month of infection.[61] Figure 21 presents suicide rates for Recent Veteran VHA Users, by COVID-19 infection status, in time intervals following indication of infections in 2020-2022.

- In 2020, the suicide rate for the initial three months following indication of COVID-19 infection was 91.9% higher than for those with no known indication of infection (75.5 per 100,000 versus 39.3 per 100,000); in 2021, the three-month COVID-19 suicide rate was 41.9% higher than for those without indications of infection (56.9 per 100,000 versus 40.1 per 100,000); and in 2022, the rates were virtually the same (42.1 per 100,000 versus 42.2 per 100,000).[62]

Figure 21: Unadjusted Suicide Rate, Recent Veteran VHA Users, by COVID-19 Status and Days Since Infection, 2020–2022



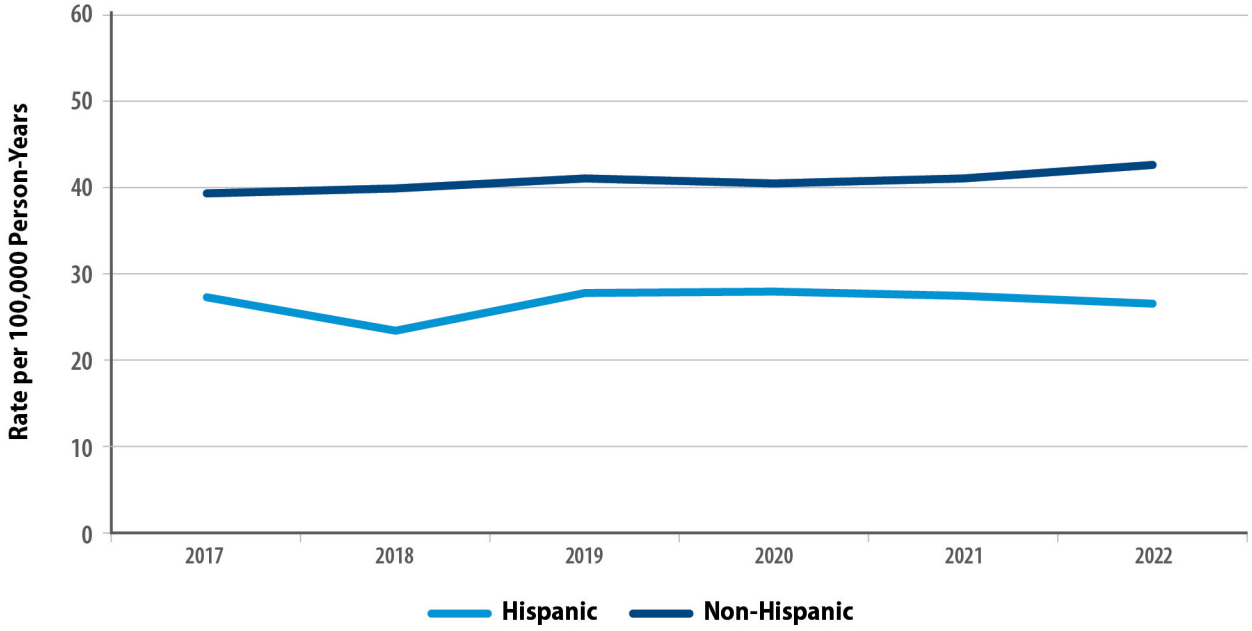
[61] Hynes DM, Niederhausen M, Chen JI, Shahoumian TA, Rowneki M, Hickok A, Shepherd-Banigan M, Hawkins EJ, Naylor J, Teo A, Govier DJ, Berry K, McCready H, Osborne TF, Wong E, Hebert PL, Smith VA, Barrett Bowling C, Boyko EJ, Ioannou GN, Iwashyna TJ, Maciejewski ML, O'Hare AM, Viglianti EM, Bohnert ASB. 2024. Risk of Suicide-Related Outcomes After SARS-COV-2 Infection: Results from a Nationwide Observational Matched Cohort of US Veterans. J Gen Intern Med. 39(4):626-635.

[62] Suicide rates after longer periods after infection were not available for 2020, however, they are presented for 2021 and 2022. Findings do not suggest elevated suicide rates after the initial 90 days following COVID-19 infections.

Ethnicity

Figure 22 presents suicide rates among Recent Veteran VHA Users by ethnicity for the years 2017-2022. In each year, suicide rates were lower for Veterans with Hispanic ethnicity, compared to non-Hispanic Veterans.

Figure 22: Unadjusted Suicide Rate, Recent Veteran VHA Users, by Hispanic Ethnicity, 2017–2022



Gender Identity

VA is continuing work to enhance data resources to inform suicide prevention for Veteran subgroups by gender identity. Self-identified gender identity remains the best approach for ascertaining gender identity, including transgender identity. However, current systems are not yet sufficiently developed for comprehensive reporting. Transgender Veterans—whose gender identity differs from the identity assumed by their assigned sex at birth—in VHA care are at increased risk for suicidal ideation[63] and non-fatal suicide attempts.[64] For this report, we assessed a measure of transgender identity using diagnosis indicators[65] linked to transgender identity that are most often used in the context of gender-affirming therapy.[66]

To enhance sensitivity of ascertainment, we generated annualized suicide rates for cohorts from 2011–2021, for suicide in the year of interest through the end of the subsequent year, for Recent Veteran VHA Users with a VHA diagnosis related to gender identity occurring in the year or the prior three years.

[63] https://www.va.gov/HEALTHEQUITY/docs/LGBT_Veterans_Disparities_Fact_Sheet.pdf.

[64] Blosnich JR, Boyer TL, Brown GR, Kauth MR, Shipherd JC. 2021. Differences in Methods of Suicide Death Among Transgender and Nontransgender Patients in the Veterans Health Administration, 1999-2016. Med Care. 59:S31-S35.

[65] Diagnoses related to gender identity include ICD-9-CM codes 302.5, 302.6, and 302.85 and ICD-10-CM codes F64 and Z87.890.

[66] This approach likely undercounts the number of transgender Veterans in VHA care.

The number of Veteran VHA patients with diagnoses related to gender identity increased from 2,513 in 2011 to 10,457 in 2021 (Table 5), and the unadjusted annualized suicide rate fell from 268.0 per 100,000 person-years in 2011 to 88.8 per 100,000 person-years in 2021.

Table 5: Unadjusted Suicide Rate in Year and Following Year, Veteran VHA Users with Diagnoses Related to Gender Identity, 2011–2021[67]

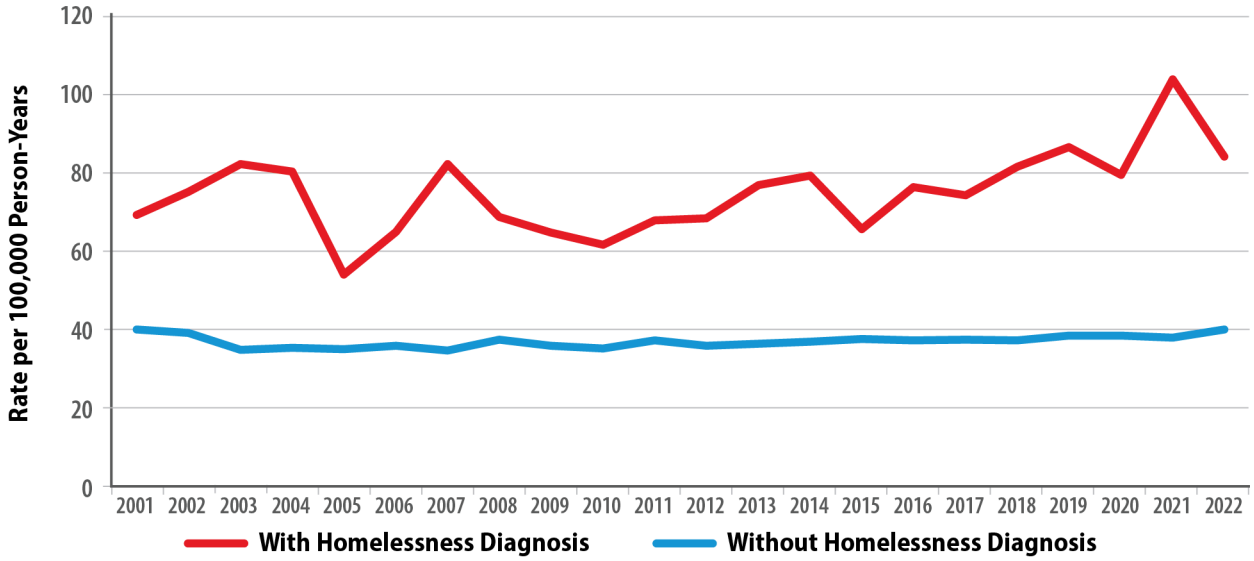
Year	Veteran VHA Patients with Diagnoses Related to Gender Identity in Year or Prior 3 Years	Percentage of Veteran VHA Users	Suicide Deaths in Year or Subsequent Year	Unadjusted Suicide Rate in Year and Following Year per 100,000 Person-Years
2011	2,513	0.04%	13	268.0
2012	2,842	0.05%	--	--
2013	3,310	0.05%	--	--
2014	3,829	0.06%	10	134.7
2015	4,623	0.07%	12	133.1
2016	5,555	0.09%	11	101.7
2017	6,434	0.10%	17	136.1
2018	7,421	0.11%	18	124.9
2019	8,318	0.13%	17	104.7
2020	9,198	0.14%	15	83.8
2021	10,457	0.16%	18	88.8

Homelessness

Figure 23 presents suicide rates among annual cohorts of Recent Veteran VHA Users, by homelessness status,[68] 2001–2022.

- In each year, the unadjusted suicide rate of Recent Veteran VHA Users with indications of homelessness was elevated compared to those without indications of homelessness.
  - In 2001, the suicide rate for Recent Veteran VHA Users with indications of homelessness was 73.1% higher than for those without indications of homelessness.
  - In 2022, the suicide rate for homeless Recent Veteran VHA Users was 110.2% higher than for those without indications of homelessness.
- In 2022, the unadjusted suicide rate among Recent Veteran VHA Users with diagnoses of homelessness was 21.4% higher than in 2001, 5.9% higher than in 2020, and 19.1% lower than in 2021.

Figure 23: Unadjusted Suicide Rate, Recent Veteran VHA Users, by Homelessness Diagnosis Status, 2001–2022



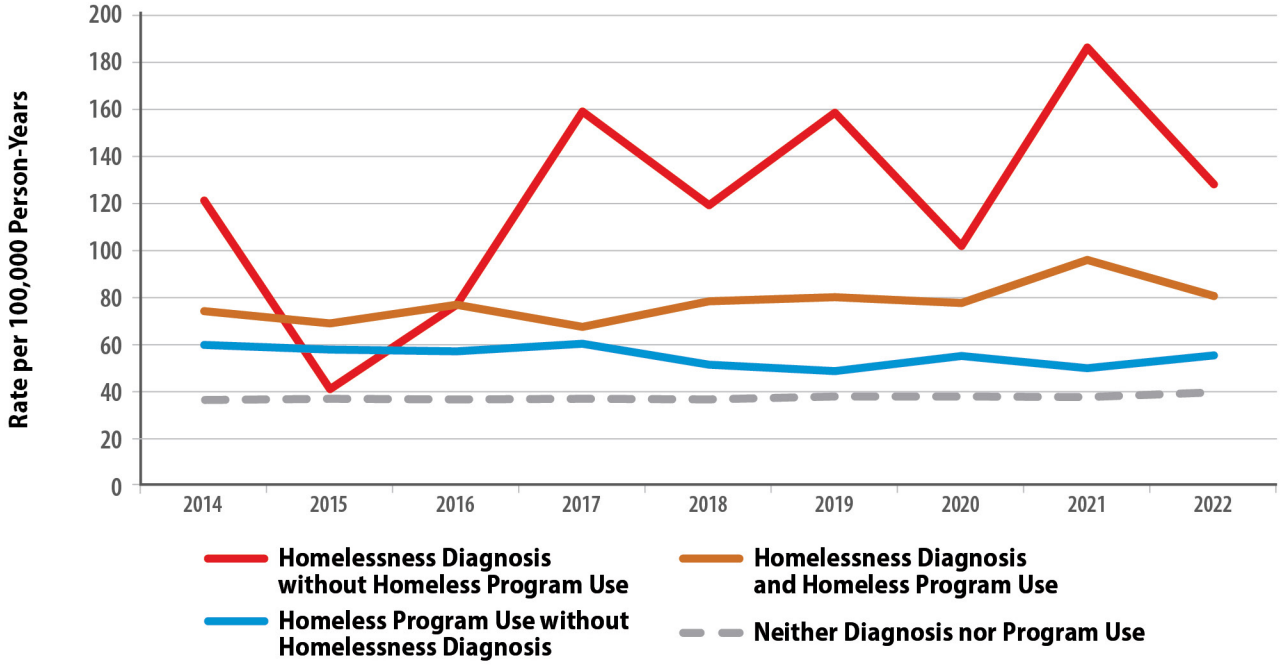
[67] Information is not presented when based on fewer than 10 suicide deaths. Note that suicide mortality is assessed for the year and the subsequent year. For example, for the 2021 cohort, we assess suicide mortality in 2021 and in 2022.

[68] Homelessness is identified using ICD-9 code V60.0 and ICD-10 code Z59.0 recorded during encounters at VA hospitals. We considered individuals as having an indication of homelessness if they had an ICD code in an encounter in the year or year prior.

Figure 24 presents suicide rates among Recent Veteran VHA Users, by receipt of diagnoses of homelessness or VA homeless program services.

- In 2022, for Veterans with homelessness diagnosis, the suicide rate was 37.1% lower for those who also received VA homeless program services (80.4 per 100,000) than for those who did not receive these services (128.1 per 100,000).
- The suicide rate was 55.1 per 100,000 for those who received homeless program services and who did not have a diagnosis of homelessness, and for those with neither a homelessness diagnosis nor homeless program services, the suicide rate was 39.8 per 100,000.

Figure 24: Unadjusted Suicide Rate, Recent Veteran VHA Users, by Homelessness Diagnosis and Homeless Program Use Status, 2014–2022

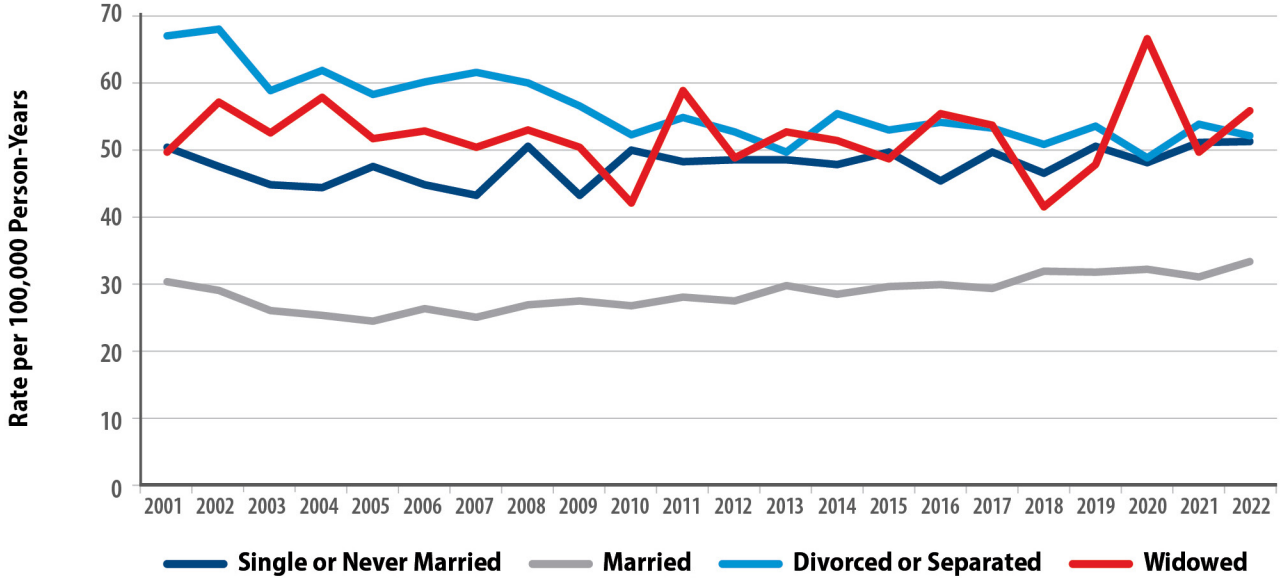


Marital Status

Figure 25 presents suicide rates among Recent Veteran VHA Users by marital status.[69]

- In each year, suicide rates were lowest among Recent Veteran VHA Users who were married, compared to those with other categories of marital status.

Figure 25: Unadjusted Suicide Rate, Recent Veteran VHA Users, by Marital Status, 2001–2022



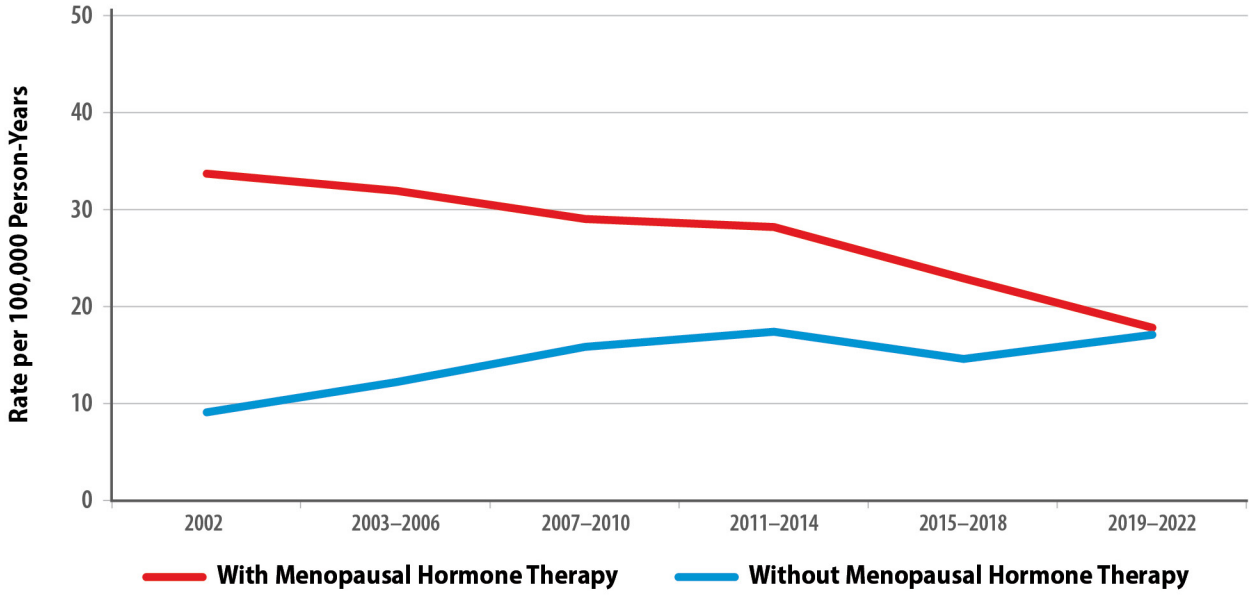
[69] Per VHA visit records, using the most recent status in the year or prior year. Excludes those with unknown marital status.

Menopausal Hormone Therapy Receipt

Figure 26 presents suicide rates for female Recent Veteran VHA Users between the ages of 40 and 64, by receipt of VHA menopausal hormone therapy.[70]

Among female Veterans in VHA care aged 40-64 who received menopausal hormone therapy, the suicide rates fell 47.4% from 2002 (33.7 per 100,000) to the years 2019-2022 (17.7 per 100,000). Conversely, for those who did not receive menopausal hormone therapy, the suicide rate rose 88.6% from 2002 (9.0 per 100,000) to the years 2019-2022 (17.0 per 100,000).

Figure 26: Unadjusted Suicide Rate, Female Recent Veteran VHA Users Age 40-64,[71] by Menopausal Hormone Therapy Receipt, for 2002 and for 4-Year Periods, 2003–2022



Mental Health and Substance Use Disorder Diagnoses

Ensuring access to mental health (MH) and substance use disorder (SUD) services is a VHA priority and part of VA's National Strategy for Preventing Veteran Suicide.[72]

The prevalence of VHA MH or SUD diagnoses among annual cohorts of Recent Veteran VHA Users was 27.8% in 2001; 41.7% in 2020; and then 41.8% and 43.4% in 2021 and 2022, respectively.[73]

- Among annual cohorts of Recent Veteran VHA Users who died from suicide, VHA MH or SUD diagnoses were documented for 56.1% of those who died in 2001; 58.0% of suicide decedents in 2020; 61.1% of suicide decedents in 2021; and 60.2% of suicide decedents in 2022.
- Among those who died from suicide in 2022, the prevalence of depression was 38.6%, anxiety 26.1%, PTSD 24.9%, alcohol use disorder 19.6%, cannabis use disorder 8.8%, bipolar disorder 8.1%, personality disorder 4.4%, opioid use disorder 3.9%, other psychotic disorders[74] 3.8%, attention-deficit hyperactivity disorder (ADHD) 3.2%, and schizophrenia 3.0%.
- Conversely, 39.8% of Recent Veteran VHA Users who died from suicide in 2022 did not have a documented VHA MH or SUD diagnosis.

[70] Menopausal hormone therapy was indicated per receipt of estrogen hormone therapy per VHA medication classes HS300 and GU500. Information from annual assessments is reported for 2002 and for four-year periods from 2003-2022.

[71] Excludes Veterans with diagnoses of gender identity disorder given potential receipt of hormone therapy for gender-affirming purposes rather than treatment of menopause symptoms. See: Gibson CJ, Li Y, Jasuja GK, Self KJ, Seal KH, Byers AL. 2021. Menopausal Hormone Therapy and Suicide in a National Sample of Midlife and Older Women Veterans. Medical Care. 59:S70-S76.

[72] https://www.mentalhealth.va.gov/suicide_prevention/docs/Office-of-Mental-Health-and-Suicide-Prevention-National-Strategy-for-Preventing-Veterans-Suicide.pdf (Accessed 7/10/2023).

[73] Diagnoses were assessed in the year or prior calendar year. An individual's likelihood of having a documented diagnosis may vary by the number of VHA health care contacts in the relevant period. VHA transitioned from International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) to ICD-10-CM diagnosis codes on Oct. 1, 2015. Diagnoses were not mutually exclusive, and analyses do not adjust for demographic differences or comorbidities.

[74] Non-schizophrenia and non-bipolar disorder conditions that involved psychoses. See: McCarthy JF, Blow FC. 2004. Older Patients with Serious Mental Illness: Sensitivity to Distance Barriers for Outpatient Care. Medical Care. 42(11):1073-1080.

- The suicide rate among cohorts of Recent Veteran VHA Users with MH or SUD diagnoses fell from 77.9 per 100,000 in 2001 to 56.4 per 100,000 in 2022. In 2019, prior to the COVID-19 pandemic, the rate was 57.3 per 100,000. This fell to 54.4 per 100,000 in 2020 and then rose to 56.9 per 100,000 in 2021. By contrast, the rate among Recent Veteran VHA Users who did not have documented MH or SUD diagnoses rose from 25.5 per 100,000 in 2001 to 29.6 per 100,000 in 2022. This fell from 29.0 per 100,000 in 2020 to 27.2 per 100,000 in 2021, then rose to 29.6 per 100,000 in 2022.
- Trends in rates varied by condition. From 2001 to 2022, suicide rates fell 27.6% for patients with MH/SUD diagnoses, while rising 16.2% for patients without documented MH/SUD diagnoses.
- From 2001 to 2022, suicide rates fell for Recent Veteran VHA Users with diagnoses of:
  - Anxiety (-35.1%)
  - Depression (-34.5%)
  - PTSD (-31.6%)
  - Sedative use disorder (-21.8%)[75]
  - Alcohol use disorder (-13.7%)
  - Substance use disorders (-11.4%)
  - Schizophrenia (-11.3%)
- From 2001 to 2022, suicide rates rose for Recent Veteran VHA Users with diagnoses of:
  - Other psychotic disorder (+80.8%)
  - Cocaine use disorder (+33.5%)
  - Other substance use disorders (+29.7%)
  - Cannabis use disorder (+19.6%)
  - Opioid use disorder (+16.2%)
  - Bipolar disorder (+2.6%)
  - Stimulant use disorder (+2.4%)

For 2022 and 2021 Recent Veteran VHA User cohorts, Table 6 presents the number of suicide deaths and unadjusted suicide rates per 100,000.

- From 2021 to 2022, suicide rates fell for those with any MH or SUD diagnosis, while increasing for patients with any SUD diagnosis and for patients without a MH or SUD diagnosis.

Table 6: Suicide Deaths and Unadjusted Suicide Rates, Recent Veteran VHA Users, by Mental Health (MH) and Substance Use Disorder (SUD) Diagnoses,[76] 2021 and 2022

Diagnoses	Suicide Deaths		Suicide Rates per 100,000 Person-Years		
	2021	2022	2021	2022	Rate Change[77]
Without MH/SUD Condition	**952**	**1,024**	**27.2**	**29.6**	**+2.4**
With Any MH/SUD Condition	**1,495**	**1,548**	**56.9**	**56.4**	**-0.5**
Anxiety	679	671	66.2	60.3	-5.8
Attention-Deficit Hyperactivity Disorder	85	83	76.4	64.4	-12.0
Bipolar Disorder	213	209	129.1	125.4	-3.6
Depression	943	992	65.2	65.1	-0.1
Other Psychoses	86	98	181.4	207.1	+25.7
Personality Disorder	102	112	139.5	153.3	+13.8
Post-Traumatic Stress Disorder	623	640	52.9	51.3	-1.6
Schizophrenia	84	77	98.7	92.6	-6.1
Substance Use Disorder	**621**	**646**	**88.7**	**89.3**	**+0.6**
Alcohol use disorder	482	503	90.9	92.1	+1.2
Cannabis use disorder	204	227	109.2	114.8	+5.6
Cocaine use disorder	70	62	84.5	76.2	-8.4
Opioid use disorder	104	99	119.4	114.3	-5.1
Sedative use disorder	30	37	183.1	236.7	+53.6
Stimulant use disorder	96	87	174.8	153.6	-21.2

[75] In 2001, there were 21 suicides among Recent Veteran VHA Users with sedative use disorder. In 2022, there were 37.

[76] Diagnosis categories are not mutually exclusive.

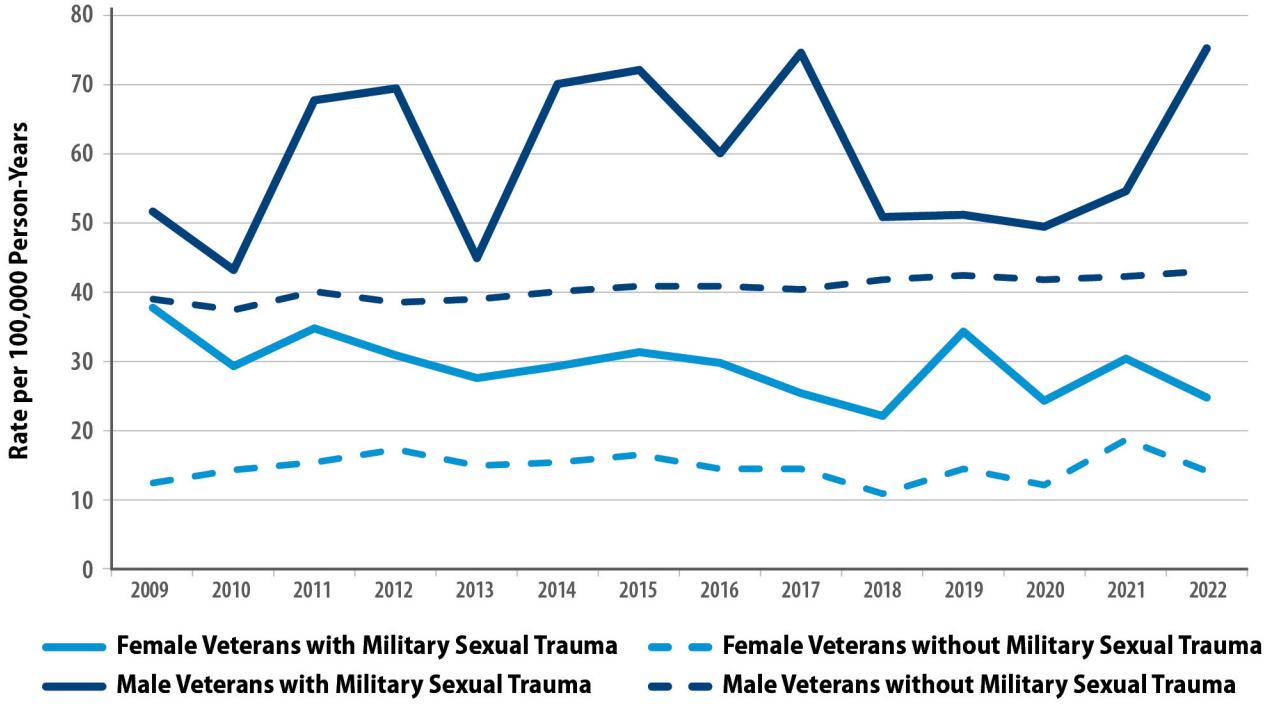
[77] Change in suicide deaths per 100,000; these were calculated using non-rounded numbers.

Military Sexual Trauma

Suicide risks are elevated among Veterans in VHA care who report experiences of sexual assault or sexual harassment during military service, known as military sexual trauma (MST).[78,79] Figure 27 presents suicide rates for Recent Veteran VHA Users, by sex and military sexual trauma screening responses, 2009-2022.

In each year from 2009 through 2022, the suicide rate among female and male Recent Veteran VHA Users was greater for those who reported having experienced MST than among those who indicated that they had not experienced MST. For example, among female Recent Veteran VHA Users in 2022, the suicide rate was 75.0% higher for those with positive screens for MST (25.0 per 100,000 for those with positive MST screens and 14.3 per 100,000 for those with negative screens) and the rate was 74.6% higher for male Recent Veteran VHA Users with positive screens for MST (75.5 per 100,000 for those with positive screens and 43.2 per 100,000 for those with negative screens).

Figure 27: Unadjusted Suicide Rate, Recent Veteran VHA Users, by Sex and Military Sexual Trauma Status,[80] 2009–2022



[78] Kimerling R, Makin-Byrd K, Louzon S, Ignacio RV, McCarthy JF. 2016. Military Sexual Trauma and Suicide Mortality. Am J Prev Med. 50(6):684-691.

[79] Galovski TE, Street AE, Creech S, Lehavot K, Kelly UA, Yano EM. 2022. State of the Knowledge of VA Military Sexual Trauma Research. J Gen Intern Med. 37(Suppl 3):S825-S830.

[80] The figure is specific to MST screen responses of "Yes" (positive) or "No" (negative). Results for "Declined" are not presented given annual counts of less than 10. Results for responses of "Unknown" are available upon request (e.g., the suicide rate in 2022 for female Veterans with screen results of "Unknown" was 12.1 per 100,000, and for male Veterans it was 50.5 per 100,000.)

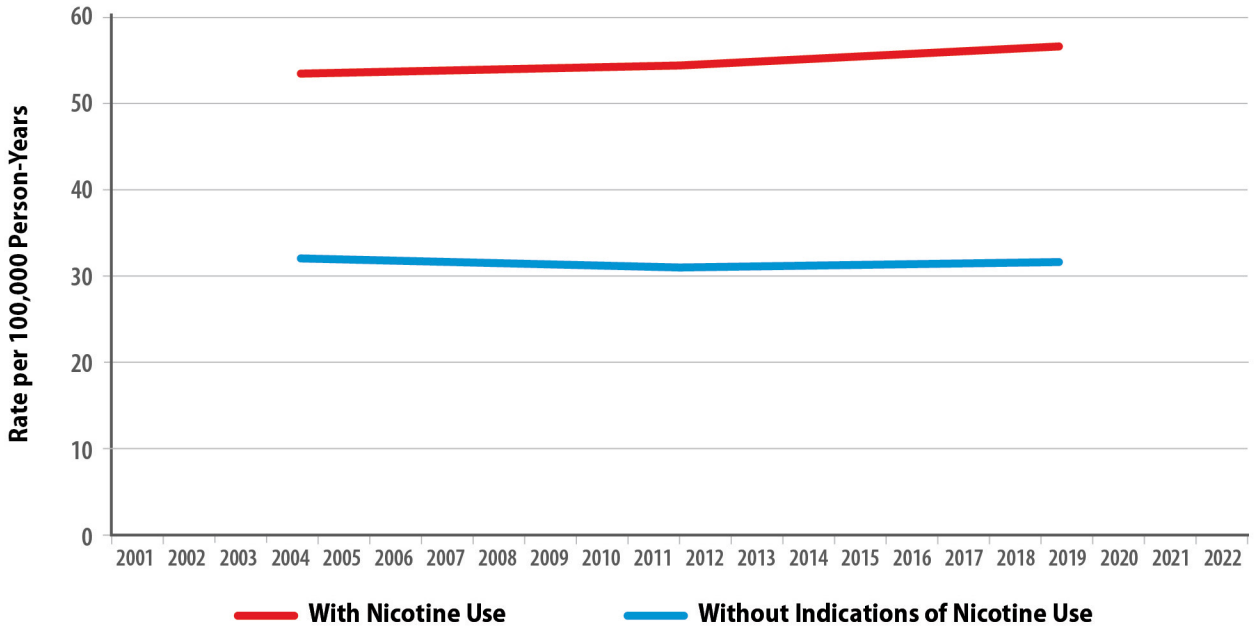
Nicotine Use

Figure 28 presents information on suicide rates among Recent Veteran VHA Users who completed a VHA screen regarding nicotine use during a health care encounter in the year of interest or the prior year. Rates are stratified by nicotine use as identified by a positive screen or a recent diagnosis of tobacco use disorder.[81]

In 2022, the suicide rate among Veterans in VHA care with indications of nicotine use (56.6 per 100,000) was 78.8% higher than the suicide rate for Veterans in VHA care without indications of nicotine use (31.6 per 100,000).

- The suicide rate in 2022 among Veterans in VHA care with indications of nicotine use was 4.0% higher than in 2021.

Figure 28: Unadjusted Suicide Rate, Recent Veteran VHA Users with a VHA Screen for Nicotine Use, by Nicotine Use,[82] 2020–2022



Priority Eligibility Groups

Veterans who apply for VHA care are assigned to one of eight priority eligibility groups, which affect care costs.[83] Group status is based on military service history, disability rating, income, Medicaid qualification, and other factors.

[81] Separate analyses, not shown here, examined suicide rates among Veterans in VHA care with VHA diagnoses of tobacco use disorder, compared to other Veterans in VHA care, 2001–2022. In 2022, the suicide rate for Veterans with a VHA diagnosis of tobacco use disorder (69.3 per 100,000) was 79.1% higher than for Veterans without this diagnosis (38.7 per 100,000).

[82] This analysis was specific to Recent Veteran VHA Users who completed a tobacco use screen (including cigarettes, cigars, pipe smoking, snuff, dip, or chewing tobacco). Nicotine use was indicated by positive screens or diagnoses of tobacco use disorder.

[83] https://www.va.gov/health-care/about-va-health-benefits/cost-of-care/ (Accessed 7/12/2023).

Table 7 presents suicide rates for enrolled Recent Veteran VHA Users, by priority group, 2011–2022.[84]

Each year from 2005 to 2022, rates were highest for Veterans in Priority Eligibility Group 5, which includes income-based eligibility.

- In 2022, the suicide rate per 100,000 was highest for Group 5 (56.7 per 100,000), followed by groups 8 (46.4 per 100,000), 4 (43.8 per 100,000), 7 (41.6 per 100,000), 1 (38.2 per 100,000), 3 (35.8 per 100,000), 6 (33.8 per 100,000), and 2 (32.0 per 100,000).
- From 2021 to 2022, suicide rates increased for groups 2 (+0.3%), 3 (+17.4%), 4 (+14.1%), 5 (+2.9%), and 8 (+11.8%), and rates fell for groups 1 (-2.8%), 6 (-1.5%), and 7 (-8.8%).
- For groups 5 and 8, the suicide rates in 2022 were higher than in any of the prior 21 years.

Table 7: Unadjusted Suicide Rate, Enrolled Recent Veteran VHA Users, by VHA Priority Eligibility Group, 2012–2022

Suicide Rate per 100,000 Person-Years											
Group[85]	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Group 1	39.4	38.4	39.5	41.8	38.8	38.8	39.6	40.3	39.4	39.3	38.2
Group 2	33.1	28.7	32.3	27.7	30.1	29.1	33.7	29.5	32.8	31.9	32.0
Group 3	28.5	29.7	29.8	31.9	31.9	32.9	32.9	34.6	28.2	30.5	35.8
Group 4	41.6	25.0	43.0	45.4	48.7	37.8	39.1	42.2	44.7	38.4	43.8
Group 5	48.0	49.7	51.3	49.4	51.2	52.5	48.9	51.6	51.1	55.1	56.7
Group 6	20.1	17.5	23.0	25.1	21.1	25.8	32.3	28.8	32.1	34.3	33.8
Group 7	33.5	37.4	35.8	39.9	44.9	35.7	36.1	44.7	33.5	45.6	41.6
Group 8	35.6	41.3	37.9	37.9	39.3	38.9	36.5	41.2	45.5	41.5	46.4

[84] Group 8 refers to subgroups A-D. Group 8EG (non-enrolled) is not reported due to small numbers for most years. In 2022, Veteran VHA Users in Group 8EG had 25 suicides and a suicide rate of 50.6 per 100,000 person-years. Reporting does not include Veterans whose eligibility was categorized as No Priority. Per the VA Enrollment System Administrative Data Repository. https://www.va.gov/health-care/eligibility/priority-groups/.

[85] Eligibility priority group criteria:

Group 1: Veterans with a singular or combined rating of 50 percent or greater based on one or more service-connected disabilities or unemployability; and Veterans awarded the Medal of Honor.

Group 2: Veterans with a singular or combined rating of 30 percent or 40 percent based on one or more service-connected disabilities.

Group 3: Veterans who are former prisoners of war; veterans awarded the Purple Heart; Veterans with a singular or combined rating of 10 percent or 20 percent based on one or more service-connected disabilities; Veterans who were discharged or released from active military service for a disability incurred or aggravated in the line of duty; Veterans who receive disability compensation under 38 U.S.C. § 1151; Veterans whose entitlement to disability compensation is suspended pursuant to 38 U.S.C. § 1151, but only to the extent that such veterans' continuing eligibility for that care is provided for in the judgment or settlement described in 38 U.S.C. § 1151; Veterans whose entitlement to disability compensation is suspended because of the receipt of military retired pay; and Veterans receiving compensation at the 10 percent rating level based on multiple noncompensable service-connected disabilities that clearly interfere with normal employability.

Group 4: Veterans who receive increased pension based on their need for regular aid and attendance or by reason of being permanently housebound and other Veterans who are determined to be catastrophically disabled by the Chief of Staff (or equivalent clinical official) at the VA facility where they were examined.

Group 5: Veterans not in Priority Groups 1, 2, 3, or 4 who are determined to be unable to defray the expenses of necessary care under 38 U.S.C. § 1722(a) based on having an annual income level below adjusted income limits (based on resident ZIP code), or receiving VA pension benefits, or eligible for Medicaid programs.

Group 6: Veterans of World War II; Veterans solely seeking care for a disorder associated with exposure to a toxic substance or radiation, for a disorder associated with service in the Southwest Asia theater of operations during the Gulf War (the period between August 2, 1990, and November 11, 1998), or for any illness associated with service in combat in a war after the Gulf War or during a period of hostility after November 11, 1998, as provided and limited in 38 U.S.C. § 1710(e); Camp Lejeune Veterans pursuant to § 17.400; and veterans with 0 percent service-connected disabilities who are nevertheless compensated, including Veterans receiving compensation for inactive tuberculosis. Returning combat Veterans are eligible for these enhanced benefits for ten years after discharge. At the end of this enhanced enrollment period, VA assigns Veterans to the highest priority group they qualify for at that time.

Group 7: Veterans whose gross household income is below the geographically adjusted income limits (GMT) for where the Veteran lives and the Veteran agrees to pay copays.

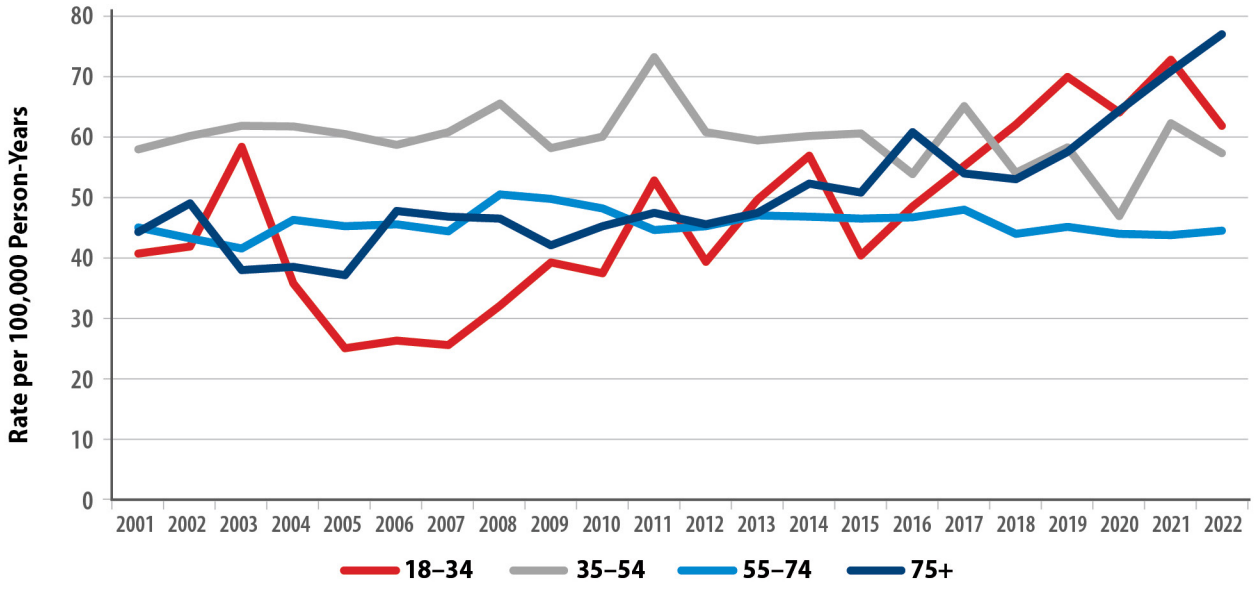
Group 8: Veterans not included in priority groups 4 or 7, who are eligible for care only if they agree to pay the applicable copayment due to gross household income being above VA income limits and GMT for where the Veteran lives. Eligibility for VA health care benefits will depend on further subprioritization within this group.

Each year from 2005 to 2022, rates were highest for Veterans in Group 5, which includes income-based eligibility.

- In 2022, the suicide rate per 100,000 was highest for Group 5 (56.7 per 100,000), followed by groups 8 (46.4 per 100,000), 4 (43.8 per 100,000), 7 (41.6 per 100,000), 1 (38.2 per 100,000), 3 (35.8 per 100,000), 6 (33.8 per 100,000), and 2 (32.0 per 100,000).
- From 2021 to 2022, suicide rates increased for groups 2 (+0.3%), 3 (+17.4%), 4 (+14.1%), 5 (+2.9%), and 8 (+11.8%), and rates fell for groups 1 (-2.8%), 6 (-1.5%), and 7 (-8.8%).
- For Groups 5 and 8, suicide rates in 2022 were higher than in the prior 21 years.

Figure 29 provides rates by age group for Recent Veteran VHA Users in Priority Group 5, 2001–2022.[86] In Priority Group 5, Veterans aged 75-years-old and older had the highest suicide rate in 2022 (77.1 per 100,000). From 2021 to 2022, the suicide rate decreased 15.1% for those aged 18- to 34-years-old and 8.0% for those aged 35-54 and increased 1.8% for those aged 55- to 74-years-old and 8.6% for those aged 75-years-old and older.

Figure 29: Unadjusted Suicide Rate, Enrolled Recent Veteran VHA Users in Priority Group 5, by Age Group, 2001–2022



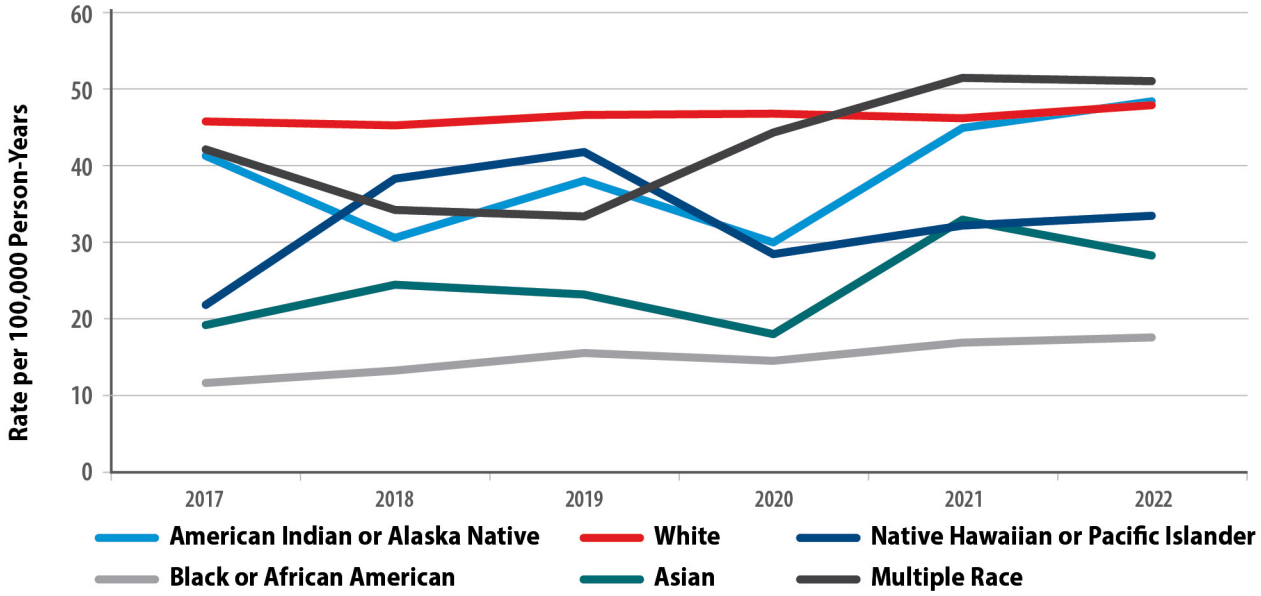
[86] For all other priority groups, reporting is unavailable by age groups in these years due to small numbers.

Race

Among Veterans in VHA care, suicide rates in 2022 were highest for Multiple Race Veterans, followed by American Indian or Alaska Native Veterans; White Veterans; Native Hawaiian or Pacific Islander Veterans; Asian Veterans; and Black or African American Veterans.

Figure 30 presents suicide rates among Recent Veteran VHA Users by race for the years 2017–2022.[87]

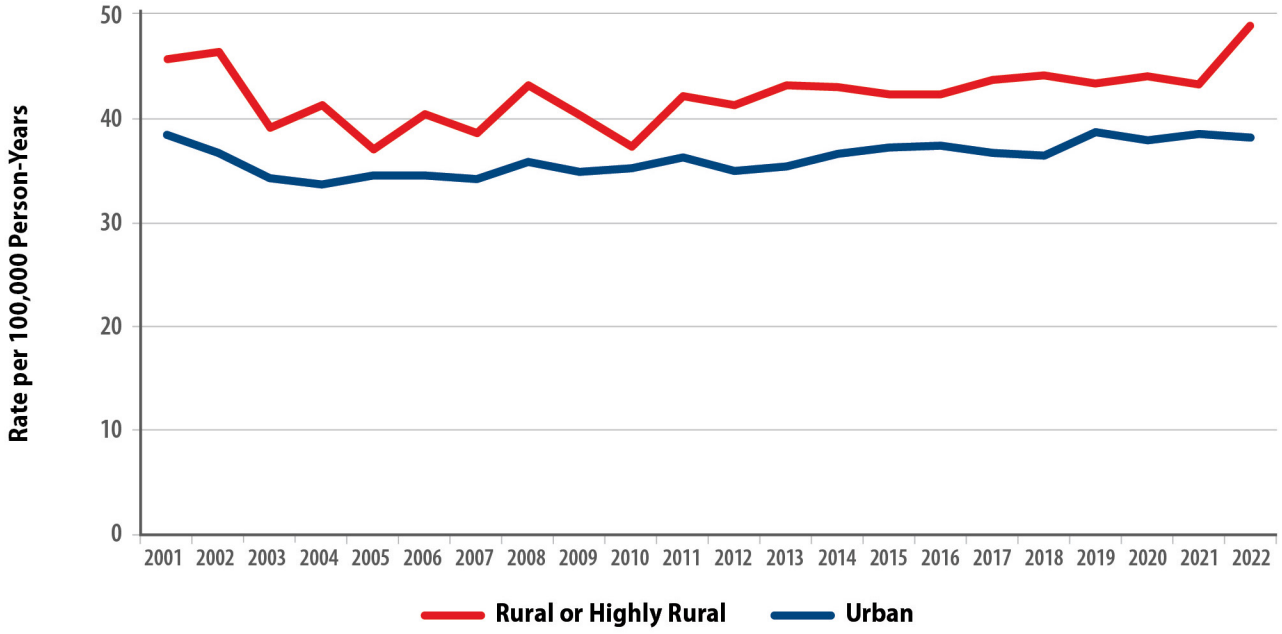
Figure 30: Unadjusted Suicide Rate, Recent Veteran VHA Users, by Race, 2017–2022



Rurality

- Among Recent Veteran VHA Users, suicide rates were elevated for residents of rural areas, compared to urban areas (Figure 31). For example, in 2022, for individuals in rural or highly rural areas, the rate was 48.9 per 100,000, and it was 38.1 per 100,000 for those in urban areas.

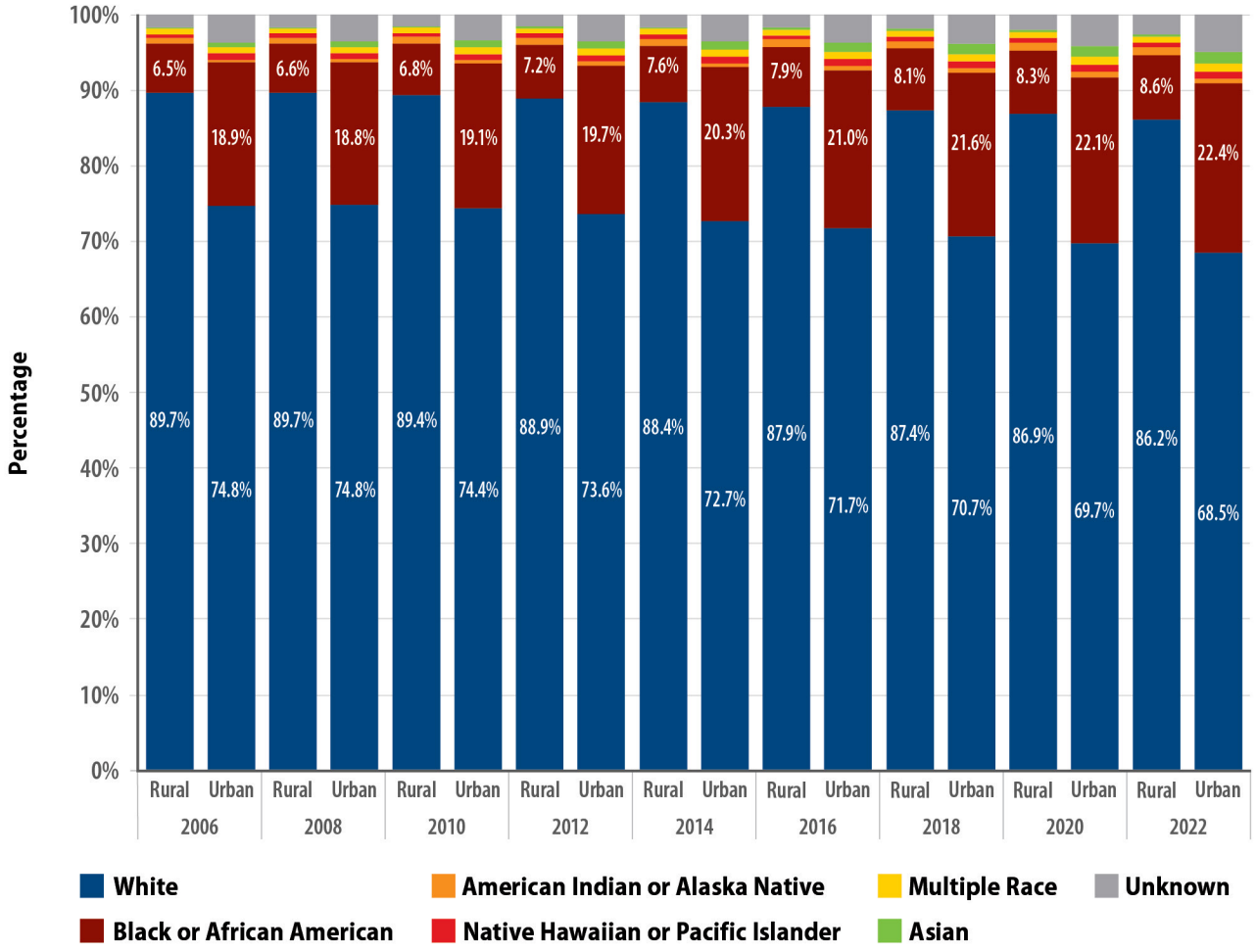
Figure 31: Unadjusted Suicide Rate, Recent Veteran VHA Users, By Urban, Rural or Highly Rural Status, 2001–2022



[87] Analyses are not presented prior to 2017 or for the overall Veteran population due to data limitations. Sources: Veterans Health Information System Technology Architecture, Oracle Health, MedSAS, and Vital Status File data, based on Veteran self-identified race or staff documentation. For each data*respondent-source combination, we identified the most frequent indication and if multiple values were documented from a given source, race was coded as Multiple Race. After reviewing all sources, race was classified with highest priority to CDW self-identified data and lowest to Vital Status File data. Information from most recent year with non-missing data was used for all prior years.

Differences in suicide rates by rurality status may relate to the demographic characteristics of Veterans in rural areas (Figure 32).[88]

Figure 32: Prevalence by Race, 5-Year Rolling Cohorts of Recent Veteran VHA Users, by Rural/Highly Rural or Urban Status, Every Other Year, 2006-2022[89]

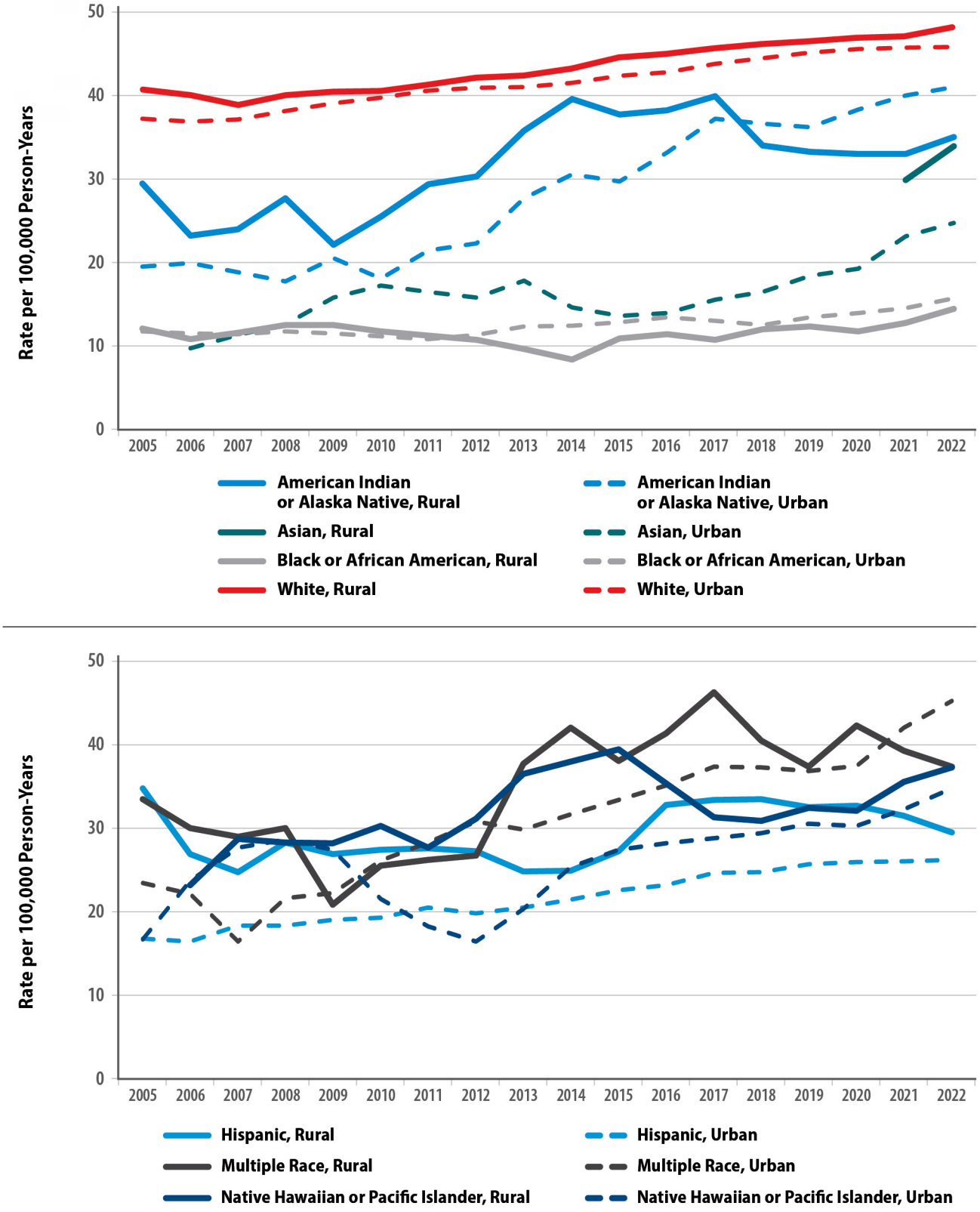


[88] Of note, as indicated in the figure, rural or highly rural areas included a higher percentage of White Veterans and a lower percentage of Black or African American Veterans than urban areas See: Peltzman T, Gottlieb DJ, Levis M, Shiner B. 2022. The Role of Race in Rural-Urban Suicide Disparities. Journal of Rural Health. 38(2):346-354.

[89] Data presented at two-year intervals to simplify presentation.

Figure 33 presents suicide rates by rurality, stratified by race.[90]

Figure 33: Five-Year Rolling Unadjusted Suicide Rate, Recent Veteran VHA Users, by Select Race/Ethnicity Categories and Urban or Rural/Highly Rural Status, 2005–2022[91]



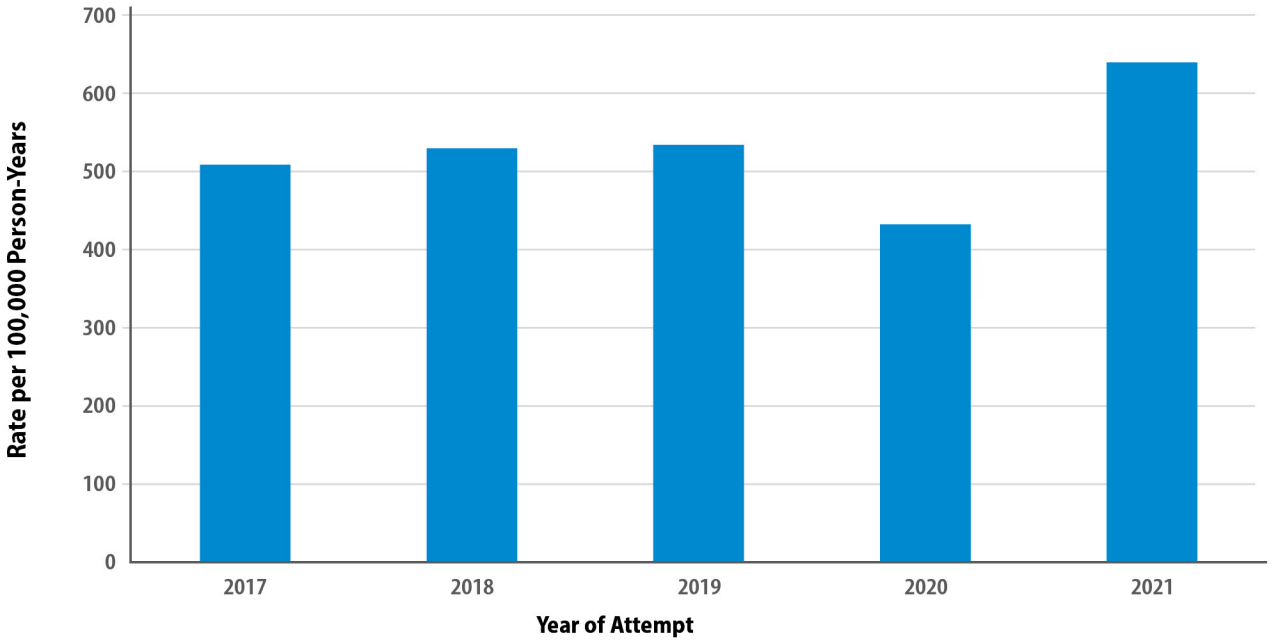
[90] In 2022, 7.7% of those in rural areas had Hispanic ethnicity, compared to 3.1% for those in urban areas.

[91] Five-year rolling rates combine numerators and denominators for the year and the prior four years. "Asian, Rural" rates are suppressed in all years except 2021 and 2022 due to counts less than 10.

Suicide Attempts

Few studies have assessed Veteran suicide mortality following non-fatal suicide attempts.[92,93] Figure 34 presents information on suicide rates in the 12 months following Veterans' first VHA indication of a non-fatal suicide attempt in each year, 2017 through 2021. Suicide rates ranged from 432.7 per 100,000 for those with indication of a non-fatal attempt in 2020 to 641.1 per 100,000 for those with indications in 2021.

Figure 34: Unadjusted Suicide Rate, 12 Months Following VHA Documented Non-Fatal Suicide Attempt, Veterans, by Year, 2017–2021[94]



[92] Weiner J, Richmond TS, Conigliaro J, Wiebe DJ. 2011. Military Veteran Mortality Following a Survived Suicide Attempt. BMC Public Health, 11(1), 374. doi: 10.1186/1471–2458-11-374.

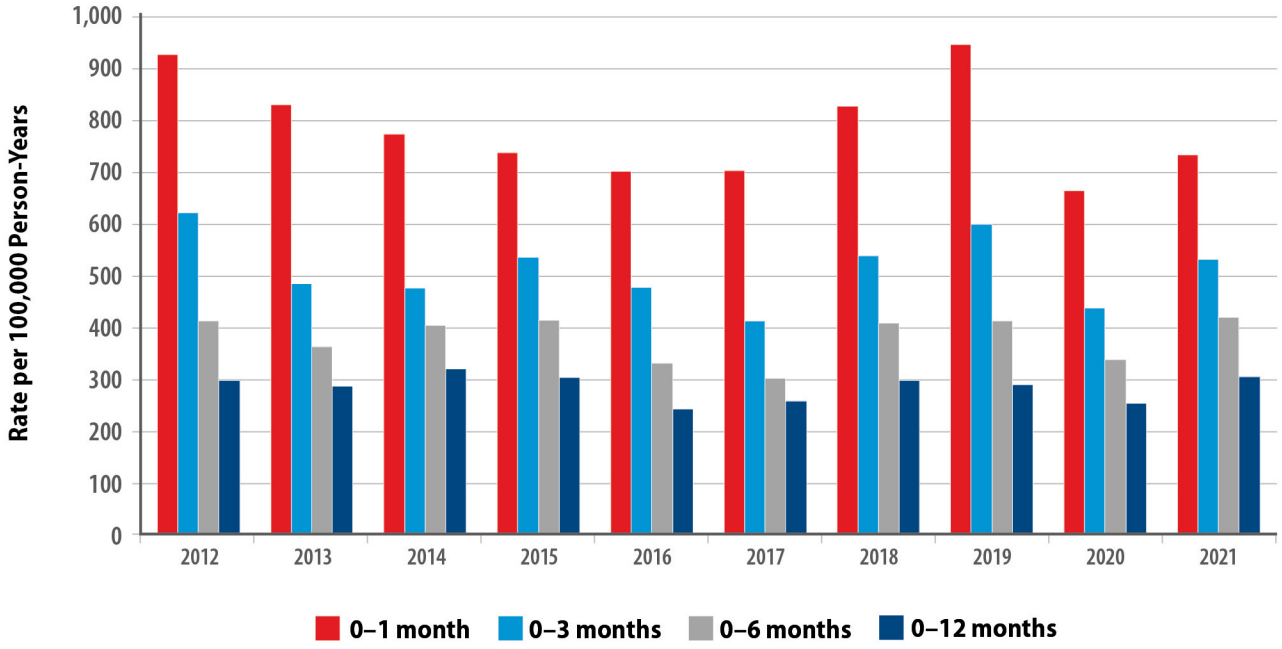
[93] Among Veterans with a VHA diagnosis of a non-fatal suicide attempt in 2005, 1.6% died from suicide over the subsequent 12 years, compared to 0.3% of Veterans without a suicide attempt diagnosis. Suicide rates diminished over time, yet remained elevated over the 12-year follow-up period, exceeding 114 per 100,000 in the following 9-12 years. See: Hein TC, Cooper SA, McCarthy JF. 2022. Mortality Following Non-Fatal Suicide Attempts by Veterans in Veterans Health Administration Care. Suicide & Life-Threatening Behavior. 52(2):222-230.

[94] Non-fatal suicide attempts were identified by ICD-10 codes (T14.91XA, T14.91XD) and VHA site reports (Suicide Prevention Applications Network; Suicide Behavior and Overdose Report; Comprehensive Suicide Risk Evaluation), per The Self-Directed Violence Classification System. Risk time began on the day following the non-fatal suicide attempt, if event data was documented, or on the day following the date of diagnosis of the non-fatal suicide attempt, whichever came first in the year. Risk time ended at death or the conclusion of a 365-day follow-up period, whichever occurred first. Analyses were limited to individuals who were alive at the start of the first day of follow-up. Results are presented for annual cohorts, 2017-2021. The number of Veterans included in each cohort was 19,011 in 2017; 20,541 in 2018; 24,368 in 2019; 22,014 in 2020; and 22,161 in 2021.

Veterans Crisis Line Use

- Prior work documents that VHA patients with documented contact with the Veterans Crisis Line have elevated suicide risks.[95] Figure 35 presents information on suicide rates in the one, three, six, and 12 months following first documented contact with the Veterans Crisis Line (including by phone, text, or chat) for Veterans who received VHA health care encounters in the prior 24 months.[96] For those with Veterans Crisis Line contacts in 2021, the suicide rate was 734.0 per 100,000 in the subsequent 30 days and 303.3 per 100,000 through 12 months.

Figure 35: Unadjusted Suicide Rate after Veterans Crisis Line Contact,[97] Veterans with VHA Care in Prior 24 Months, by Time Since Contact, 2012–2021



Veterans Justice Programs

Among Veterans in VHA care, those with legal system involvement are at increased risk of suicide-related behavior.[98] VHA connects with Veterans who are at various points in the legal system through Veterans Justice Programs. These support Veterans in prison through the Health Care for Re-Entry Veterans program and they support Veterans in courts, jails, and law enforcement settings through the Veterans Justice Outreach program.

[95] Hannemann CM, Katz IR, McCarthy ME, Hughes GJ, McKeon R, McCarthy JF. 2020. Suicide Mortality and Related Behavior Following Calls to the Veterans Crisis Line by Veterans Health Administration Patients. Suicide & Life-Threatening Behavior. 51(3):596-605.

[96] Risk time begins on the day following the first Veterans Crisis Line contact date, and analyses exclude individuals who died on that day.

[97] Risk time begins on the day after the first documented Veterans Crisis Line contact in the year.

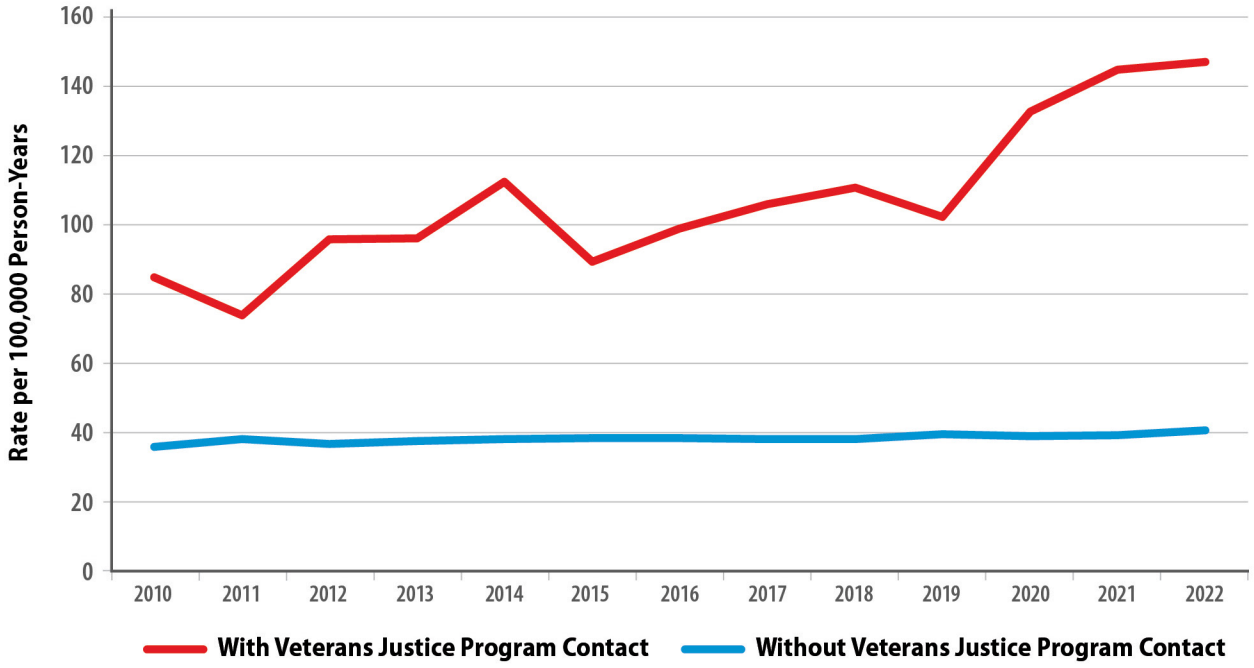
[98] Palframan KM, Blue-Howells J, Clark SC, McCarthy JF. 2020. Veterans Justice Programs: Assessing Population Risks for Suicide Deaths and Attempts. Suicide & Life-Threatening Behavior. 50(4):792-804.

Figure 36 presents information on suicide rates among annual cohorts of Recent Veteran VHA Users who received services through these programs.

In each year, suicide rates for Recent Veteran VHA Users were elevated among those with Veterans Justice Program services compared to those without such contact. In 2022, the suicide rates for Recent Veteran VHA Users who received Veterans Justice Program services (147.3 per 100,000) was 264.6% higher than for Veterans in VHA care who did not receive these services.

- The suicide rate for recipients of Veterans Justice Program services was 1.6% higher in 2022 than in 2021, while rising 3.8% for other Veterans in VHA care.

Figure 36: Unadjusted Suicide Rate, Recent Veteran VHA Users, by Receipt of Veterans Justice Program Services, 2010–2022[99]



Behavioral Health Autopsy Program Reviews

For Veterans whose suicide deaths are reported to VHA suicide prevention teams,[100] the VA Behavioral Health Autopsy Program (BHAP) gathers information that may help to prevent future suicides. Through BHAP, suicide prevention teams perform standardized reviews of health records to identify factors relevant to Veteran suicides, considering all available information.[101] VHA electronic health record reviews include assessment of clinical diagnoses and conditions (e.g., notes regarding pain), life circumstances, and psychosocial factors.

Findings provide a unique resource for understanding the characteristics and contexts of Veteran suicide deaths among Recent Veteran VHA Users.[102]

[99] Per outpatient encounters codes 591 (Health Care for Re-Entry Veterans) or 592 (Veterans Justice Outreach) or encounters for which "Justice Outreach" was listed as the activity type in the year or the prior year.

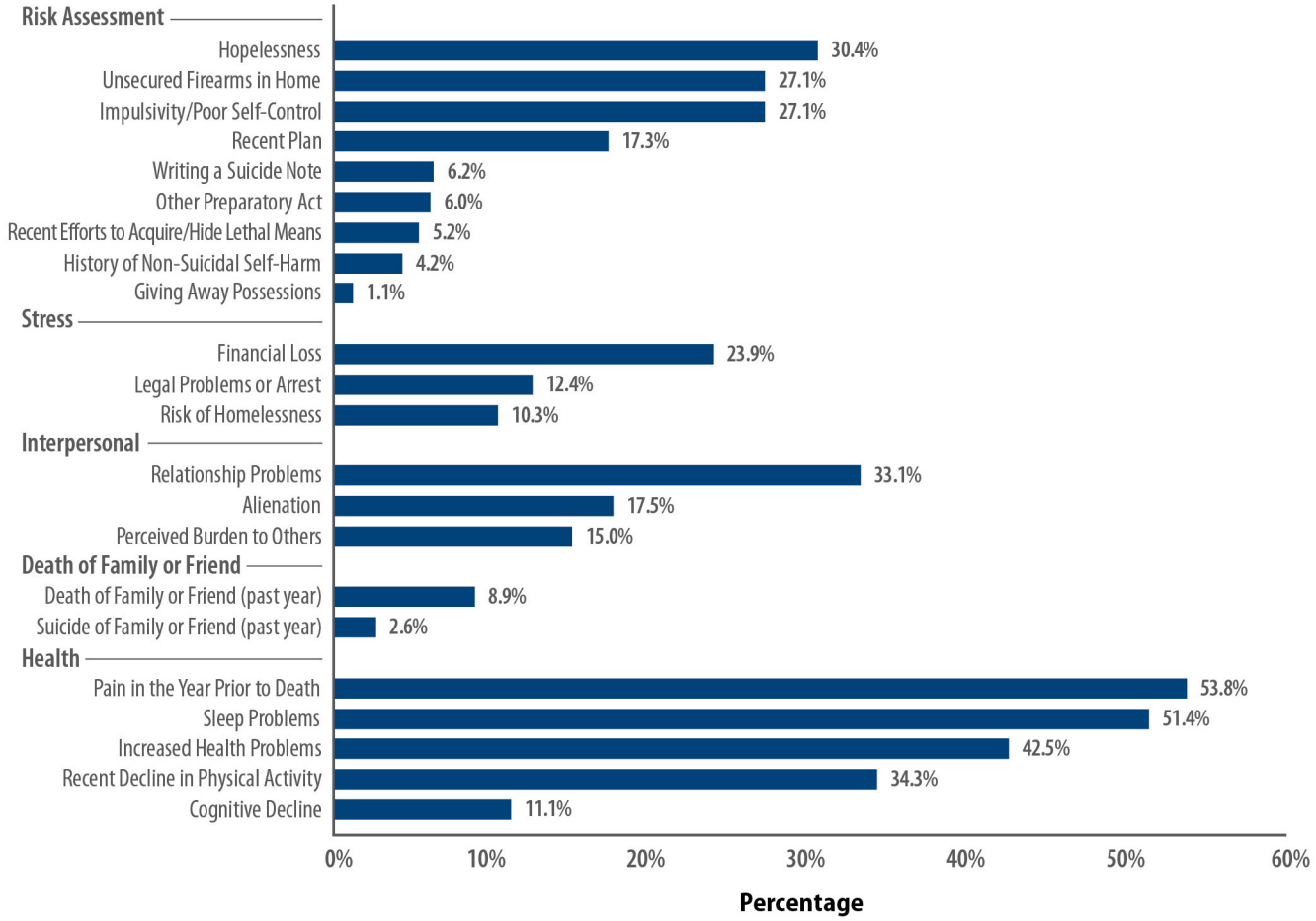
[100] Palframan KM, Szymanski BR, McCarthy JF. 2021. Ascertainment of Patient Suicides by VA Facilities and Associations with Veteran, Clinical, and Suicide Characteristics. American Journal of Public Health. 111(S2):S116-S125.

[101] Sources include health records, coroner and medical examiner reports, death certificate records, reports from law enforcement agencies, media and news outlets, and information shared by family members.

[102] Caution should be exercised when drawing conclusions, as the absence of documentation of a characteristic does not necessarily indicate that the Veteran did not experience the risk factor. It only indicates that no documentation of this risk factor was located within the medical chart or any other available source of information.

Figure 37 presents the prevalence of documented risk factors in the year prior to death among 2,654 Recent Veteran VHA Users whose suicide deaths occurred in 2020-2022 and were reported to VHA suicide prevention teams. Results are presented in five domains, related to Risk Assessment, Stress, Interpersonal Factors, Death of Family or Friend, and Health. The most frequently identified risk factors were pain (53.8%), sleep problems (51.4%), increased health problems (42.5%), recent declines in physical ability (34.3%), relationship problems (33.1%), hopelessness (30.4%), impulsivity (27.1%), and unsecured firearms in the home (27.1%).

Figure 37: Documented Suicide Risk Factors, Percentage, Recent Veteran VHA Users Who Died by Suicide in 2020-2022 and Received BHAP Reviews



Community Care

Figure 38 presents unadjusted suicide rates among Veterans who received VHA direct care and VA-funded Community Care services,[103] by year, for 2020, 2021, and 2022.[104]

- In each year, suicide rates were highest for Veterans who received any Community Care services, followed by Veterans who received any VHA care, and suicide rates were lowest among Veterans who did not receive either Community Care or VHA care.[105]

Figure 38: Unadjusted Suicide Rate, Veterans with Any Community Care and Veterans with Any VHA Care[106] in Year or Prior Year, 2020–2022

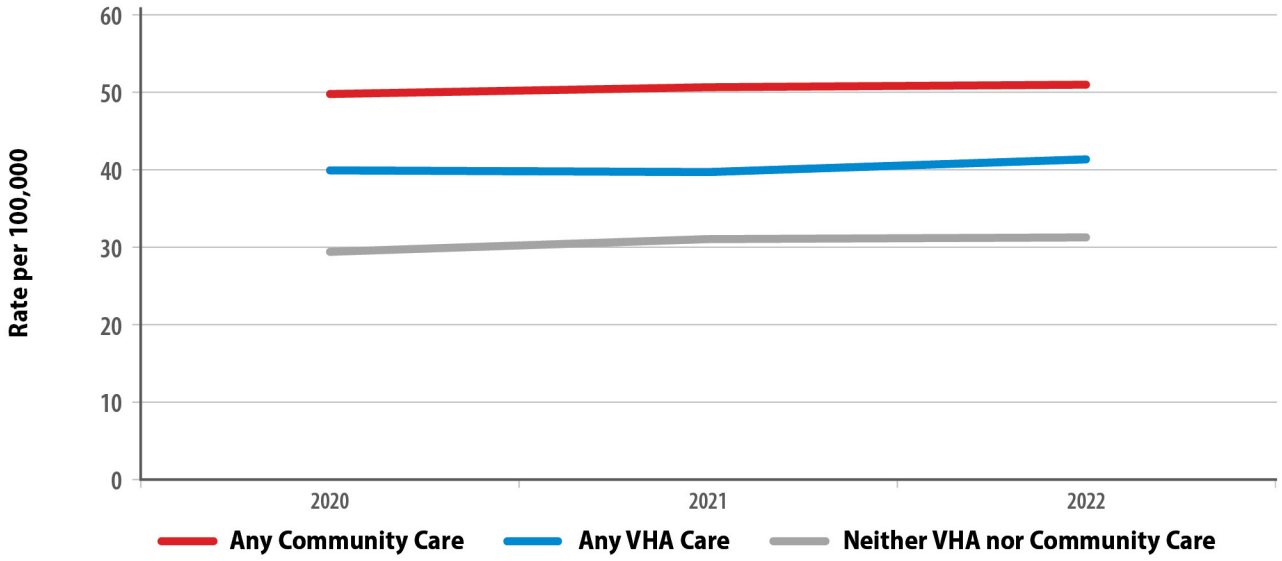
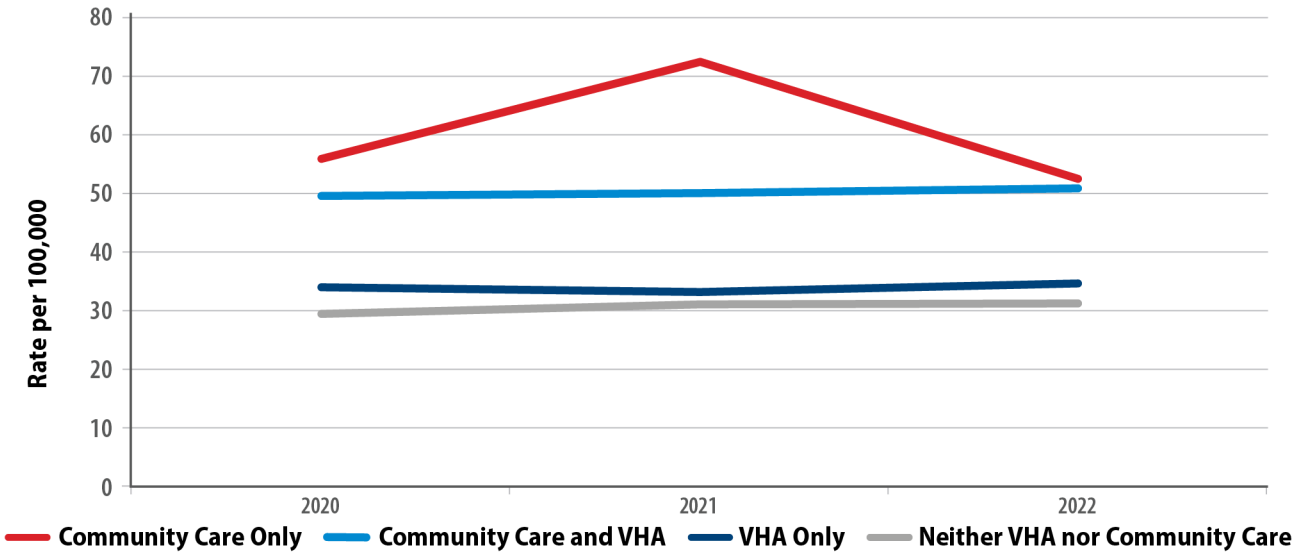


Figure 39 presents unadjusted suicide rates among Veterans by mutually exclusive categories of VHA direct care and VA Community Care services receipt in the year or prior year, for 2020, 2021, and 2022.

Figure 39: Unadjusted Suicide Rate, Veterans, by Mutually Exclusive Categories of VHA and VA Community Care Services Receipt, by Year, 2020–2022



[103] Caution should be exercised when drawing conclusions, as the absence of documentation of a characteristic does not necessarily indicate that the Veteran did not experience the risk factor. It only indicates that no documentation of this risk factor was located within the medical chart or any other available source of information.

[104] Services receipt was measured by any care in the calendar year of interest or in the prior year.

[105] The categories "Any Community Care" and "Any VHA Care" were not mutually exclusive.

[106] Here and throughout this report, VHA care refers to VHA-delivered care by VHA providers, also known as VHA direct care. Community Care refers to VA-purchased care. See: https://www.va.gov/COMMUNITYCARE/programs/veterans/CCN-Veterans.asp.

In 2020, 2021, and 2022, among those receiving care through VHA, when comparing those solely receiving VA Community Care services versus those receiving VHA direct care services, Veterans who "received Community Care services only" had higher suicide rates than those who "received VHA direct care alone."[107]

Supplemental analyses among Veterans with VHA services in 2019-2020 documented a greater burden of risk factors among those who also received VA-funded Community Care, compared to those without such care.[108]

Table 8 presents descriptive information regarding Veterans in the mid-year population for 2022 who in 2021-2022 received VHA and/or VA-funded Community Care (CC).

Table 8: Characteristics, Clinical Measures, and 2022 Mortality Rates of Veterans with VHA and/or VA-Funded Community Care (CC) in 2021-2022, by Categories of Services Receipt Category[109]

	CC Only	VHA Only	CC and VHA
Mid-year population, 2022	70,616	3,609,988	2,613,055
Female, %	8.5%	10.0%	13.1%
Male, %	91.5%	90.0%	86.9%
Age in years, average (SD)	57.7 (18.9)	61.5 (17.5)	61.6 (16.3)
Urban, %	51.7%	73.9%	61.2%
Rural, %	48.3%	26.1%	38.8%
Driving distance (miles) to nearest VHA primary care facility, average (SD)	25.4 (28.1)	14.6 (13.8)	17.7 (18.4)
Priority Group 1, %	31.1%	34.5%	49.5%
Priority Group 2, %	8.7%	7.7%	7.1%
Priority Group 3, %	14.9%	13.5%	11.5%
Priority Group 4, %	0.7%	0.6%	1.1%
Priority Group 5, %	20.3%	13.9%	15.8%
Priority Group 6, %	4.5%	5.0%	2.6%
Priority Group 7, %	3.4%	4.4%	2.5%
Priority Group 8, %	13.7%	13.7%	9.4%
With VHA mental health or substance use disorder diagnoses, %	N/A	36.6%	54.8%
With non-VHA (CC) mental health or substance use disorder diagnoses, %	18.6%	N/A	21.9%

Comparisons of characteristics and clinical indicators for Veterans in 2022 who received either Community Care only; Community Care and VHA Care; or VHA care only indicated that: 1) Recipients of Community Care Only were younger, more often male, living in rural areas, residing farther from VHA primary care facilities, less often in VHA priority group 1 and more often in priority groups 2, 3, and 5, and had the highest rates of suicide and all-cause mortality. 2) Among VHA users, those who also received Community Care were more often female, in rural areas, residing farther from VHA primary care facilities, in priority group 1 and 5, with greater

[107] Comparisons of characteristics and clinical indicators for Veterans in 2022 who received either Community Care only; Community Care and VHA care; or VHA care only indicated that: 1) Recipients of Community Care Only were younger, more often male, living in rural areas, residing farther from VHA primary care facilities, less often in VHA Priority Group 1 and more often in priority groups 2, 3, and 5, and had the highest rates of suicide and all-cause mortality; 2) Among VHA users, those who also received Community Care were more often female, in rural areas, residing farther from VHA primary care facilities, in priority groups 1 and 5, with greater prevalence of VHA diagnosed mental health and substance use disorder conditions, greater receipt of VHA inpatient care and outpatient services, and substantially elevated suicide and all-cause mortality rates; and 3) Among Community Care users, those who received VHA care had greater receipt of Community Care mental health or substance use disorder diagnoses and Community Care inpatient and outpatient services than those who did not receive VHA care and greater suicide and all-cause mortality rates. Findings are available upon request.

[108] Analyses examined data for 6,214,396 Veterans who were alive as of 1/8/2021 and had VHA encounters in the prior two years; 42.1% had received VA-funded Community Care in this period. Proportional hazards regression documented elevated suicide risk in 2021–2022 for those with VA-funded Community Care compared to those without such care, when adjusting for age, sex, race, ethnicity, VHA priority eligibility group, rurality, driving time to the nearest VHA facility, and REACH VET suicide prediction risk score (hazard ratio 1.11, $p<0.001$). However, this association became non-significant when the statistical model also included prior suicide attempts, receipt of mental health or substance use disorder diagnoses, and receipt of mental health treatment encounters.

[109] Clinical measures and VHA and/or CC services receipt were assessed for the period 2021-2022. Excludes those with missing data: Rural/urban status (3.5% for CC only, 0.1% for VHA Only, 0.1% for CC and VHA); Driving distance (1.7% for CC only, 0.7% for VHA Only, and 0.1% for CC and VHA). Categorization of VHA and CC inpatient and outpatient utilization differed (e.g., discharges vs. encounters) due to differences in source data structures and definitions. Analyses also included Veterans in Priority Group 8EG (CC Only: 1.1%; VHA Only 1.3%; CC and VHA: 0.1%) and Veterans without a documented Priority Group (CC Only: 1.6%; VHA Only 5.4%; CC and VHA: 0.4%).

prevalence of VHA diagnosed mental health and substance use disorder conditions, greater receipt of VHA inpatient care and outpatient services, and substantially elevated suicide and all-cause mortality rates. 3) Among Community Care users, those who received VHA care had greater receipt of Community Care mental health or substance use disorder diagnoses and Community Care inpatient and outpatient services than those who did not receive VHA care and greater suicide and all-cause mortality rates. Findings are available upon request

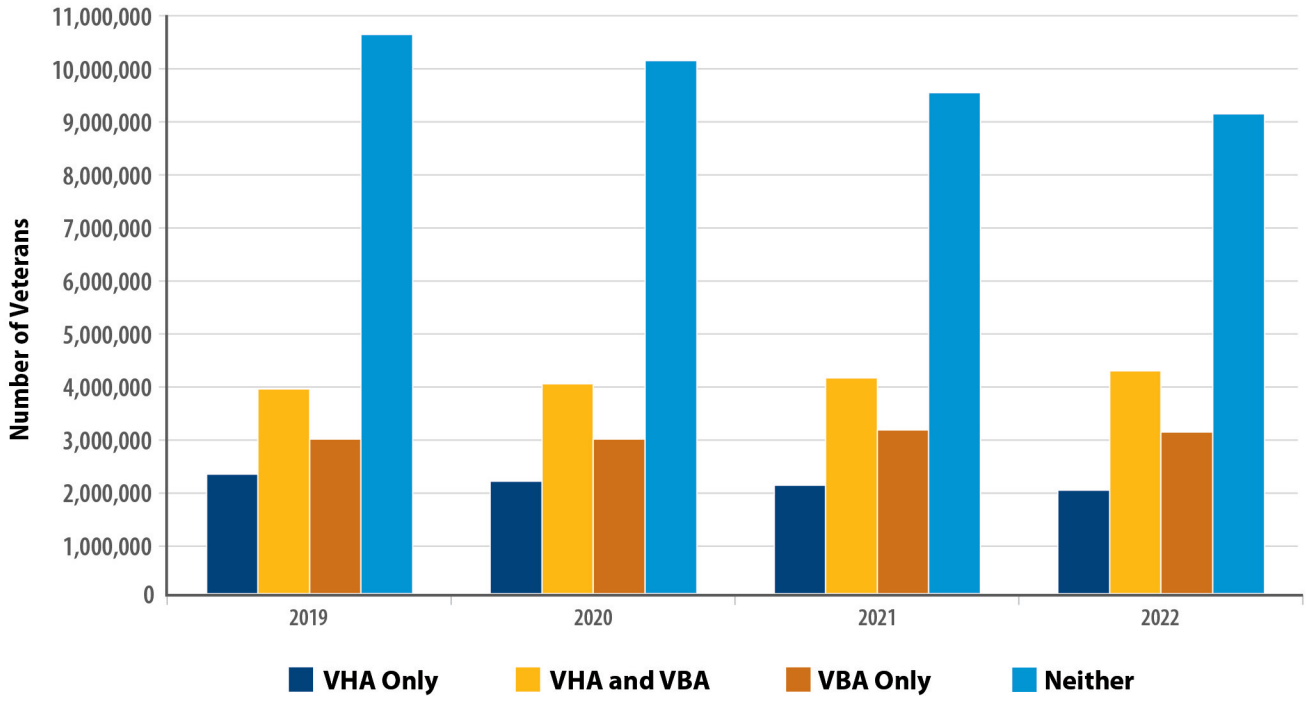
Supplemental analyses among Veterans with VHA services in 2019-2020 documented greater burden of risk factors among those Veterans who also received VA-funded Community Care, compared to those without such care.[110]

Receipt of VBA and VHA Services

Figure 40 presents the distribution of Veterans by categories of contact with VBA and VHA, in the year or prior year, 2019-2022.

- Over 7.3 million Veterans had some VBA contact and over 6.2 million Veterans had some VHA contact, in either 2021 or 2022. This included over 1.9 million Veterans who only received VHA care, nearly 3.1 million who only received VBA services, and over 4.2 million who received both VBA and VHA services.
- The prevalence of receipt of VBA or VHA services rose from 2019 through 2022. In 2022, 50.4% of Veterans had received either VBA or VHA services that year or in the prior year.
- From 2019 to 2022, the number of Veterans who received only VBA services in the year or prior year increased 4.4%, the number receiving only VHA services fell by 13.6%, the number receiving both VBA and VHA services increased by 8.7%, and the number receiving neither VBA nor VHA services decreased by 14.2%.[111]

Figure 40: Number of Veterans, by Categories of VBA and VHA Contact[112] in the Year or Prior Year, 2019–2022



[110] Analyses examined data for 6,214,396 Veterans who were alive as of 1/8/2021 and had VHA encounters in the prior 2 years; 42.1% had received VA-funded community care in this period. Proportional hazards regression documented elevated suicide risk in 2021-2022 for those with VA-funded Community Care, compared to those without such care, when adjusting for age, sex, race, ethnicity, VHA eligibility priority group, rurality, driving time to the nearest VHA facility and REACH VET suicide prediction risk score (Hazard Ratio 1.11, $p < 0.001$). However, this association became non-significant when the statistical model also included prior suicide attempts, receipt of mental health or substance use disorder diagnoses, and receipt of mental health treatment encounters.

[111] From 2019 to 2022, the overall Veteran population fell 4.9%, from 19,817,000 to 18,468,000.

[112] Counts are based on mid-year estimates.

In 2022, 10.7% of the Veteran population received VHA care only, 23.0% received both VHA and VBA services, 16.7% received only VBA services, and 49.6% received neither VHA nor VBA services.[113]

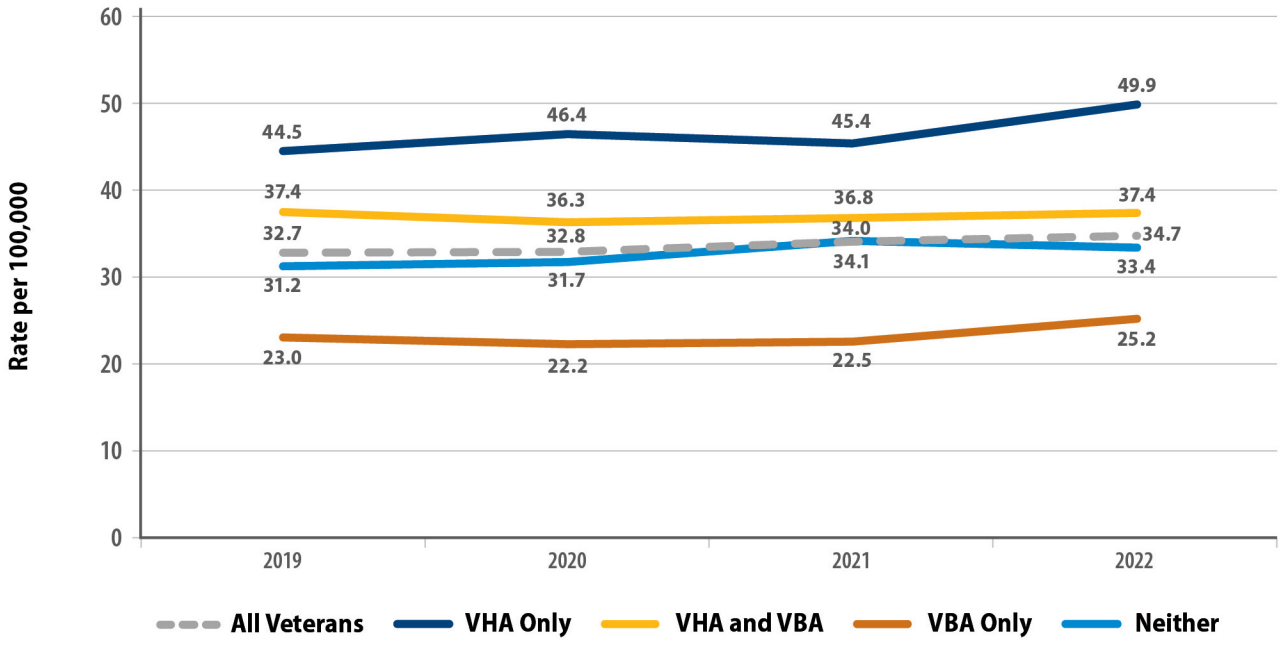
In 2022, among VBA service recipients, most received VBA compensation and pension benefits (75.2%), followed by home loan services (42.4%), life insurance (16.4%), educational benefits (8.1%), and Veteran Readiness and Employment services (2.7%).[114]

Suicide Rates, by Receipt of VBA or VHA Services

Figure 41 presents unadjusted suicide rates among Veterans by mutually exclusive categories of VHA and VBA services receipt in the year or prior year, by year, from 2019 to 2022.

Suicide rates were highest among Veterans who only received VHA services, followed by those who received both VHA and VBA services, then those who received neither VHA nor VBA services. Suicide rates were lowest among Veterans who received VBA services and did not receive VHA services.

Figure 41: Unadjusted Suicide Rate, Veterans, by Mutually Exclusive Categories of VHA and VBA Services Receipt,[115] by Year, 2019–2022



[113] Distribution of Veteran Population, Percentage, by VBA and VHA Contact in Year or Prior Year, 2019–202

	2019	2020	2021	2022
VHA Only	11.5%	11.1%	10.9%	10.7%
VHA and VBA	19.7%	20.8%	21.8%	23.0%
VBA Only	14.9%	15.3%	16.6%	16.7%
Neither	53.8%	52.8%	50.7%	49.6%

[114] VBA Services Received, Percentage, Veterans with VBA Services in Year or Prior Year, 2019–2022

	2019	2020	2021	2022
Compensation and Pension	74.1%	75.4%	74.1%	75.2%
Home Loan	35.7%	37.5%	41.1%	42.4%
Life Insurance	17.9%	17.4%	16.7%	16.4%
Education	10.7%	9.9%	9.0%	8.1%
Veteran Readiness and Engagement	1.2%	1.3%	2.2%	2.7%

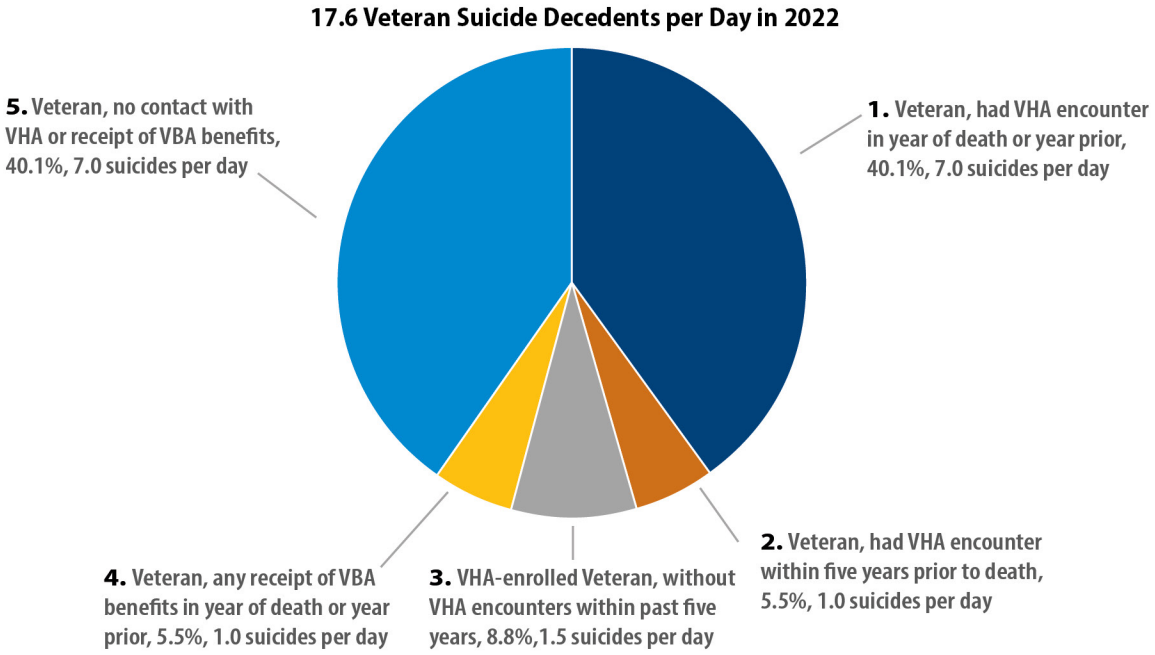
Counts are based on mid-year estimates. Veteran Readiness and Employment includes Chapter 31 benefit recipients, excluding those whose status at the beginning of the year was "Applicant," "Not Eligible," "Rehabilitated," "Interrupted" or "Discontinued."https://benefits.va.gov/BENEFITS/about.asp.

[115] Suicide rates were calculated as the number of suicide deaths among individuals with that category of services receipt in the year or prior year, divided by the mid-year population estimate of individuals with that category of services receipt, multiplied by 100,000. Information includes data for individuals identified as Veterans by VBA.

Veteran Suicide Decedents in 2022: Contacts with VHA and VBA

This section presents analyses regarding points of VA contact by Veteran decedents, including VHA health care encounters, VHA enrollment and VBA contacts. We present findings for the 6,407 Veterans who died from suicide in 2022 (Figure 42).

Figure 42: Veteran Suicide Decedents in 2022, Sequential Mutually Exclusive Categories of VA Points of Contact, Percentage and Average Suicides Per Day[116]



Veteran Suicide Decedents, VBA Contact and VBA Services Received

Among Veterans who died from suicide in 2019, 33.1% had VBA contact in that year or the prior year. This percentage rose to 33.4% in 2020, 34.6% in 2021, and 36.9% in 2022.

For Veterans who died from suicide in 2022, 79.5% had received compensation or pension benefits, 31.6% home loan benefits, 21.5% life insurance benefits, 6.8% education benefits, and 2.8% Veteran Readiness and Employment services.[117]

[116] Sequential mutually exclusive categories of VA points of contact are ordered from 1 to 5.

[117] VBA Services Receipt, Percentage, Veteran Suicide Decedents with VBA Contact in the Year or Year Prior to Death, 2019-2022

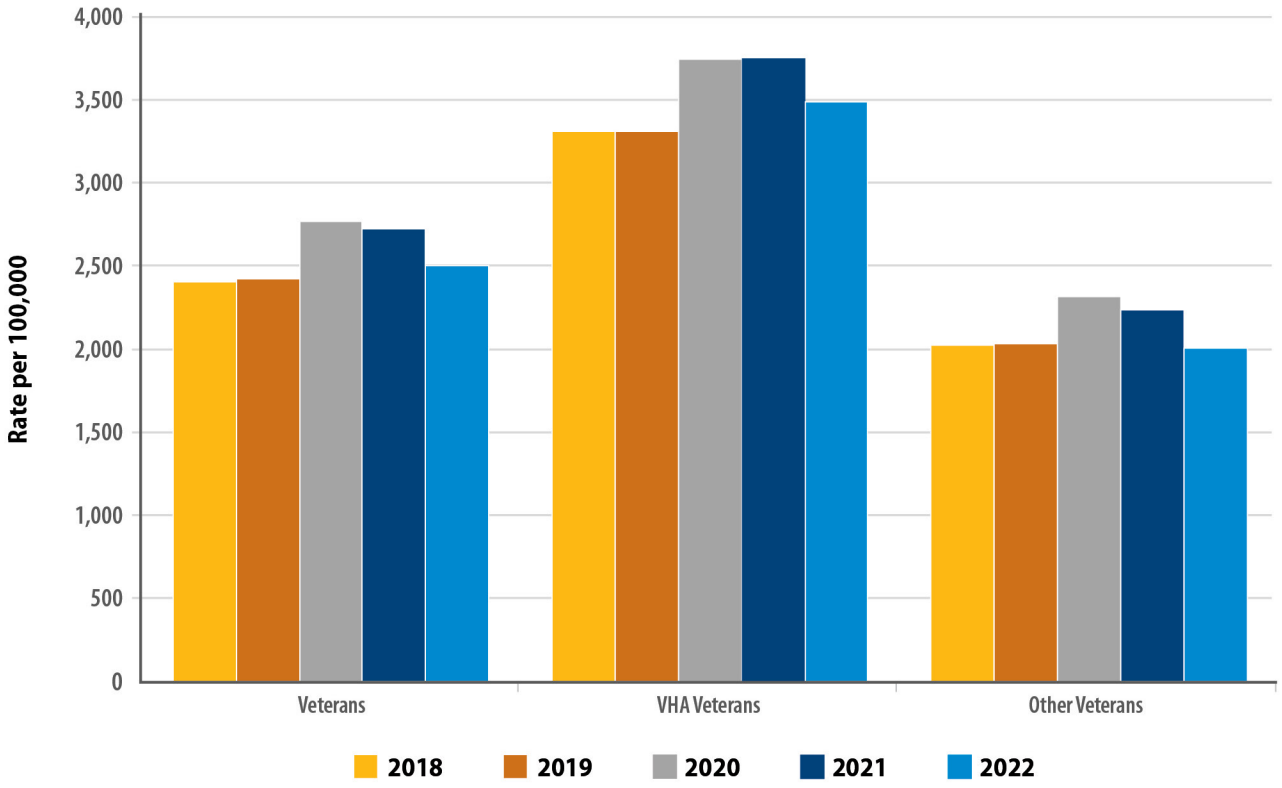
	2019	2020	2021	2022
Compensation and Pension	78.7%	80.0%	80.6%	79.5%
Home Loan	28.2%	29.7%	33.2%	31.6%
Life Insurance	14.3%	13.5%	12.5%	21.5%
Education	9.0%	9.1%	6.8%	6.8%
Veteran Readiness and Engagement	1.1%	1.1%	1.7%	2.8%

Section C: Suicide as a Leading Cause of Veteran Mortality

All-Cause Mortality

Figure 43 shows Veteran unadjusted all-cause mortality rates from 2018-2022.[118] All-cause mortality rates were elevated in 2020-2021, the initial years of the COVID-19 pandemic, and rates fell in 2022. Consistent with reports of increased morbidity among Veterans who seek VHA care, all-cause mortality was greater for Recent Veteran VHA Users than for Other Veterans. These findings highlight the increased burdens of morbidity and mortality among Veterans during the pandemic years and the greater morbidity and mortality among Veterans who seek care from the VA health system.

Figure 43: Unadjusted All-Cause Mortality, Veterans, Overall and by VHA Engagement, 2018–2022



[118] Understanding patterns of all-cause mortality over this period is helpful to understanding trends in suicide risk factors, including medical morbidity and stressors, and patterns of risk across Veteran populations.

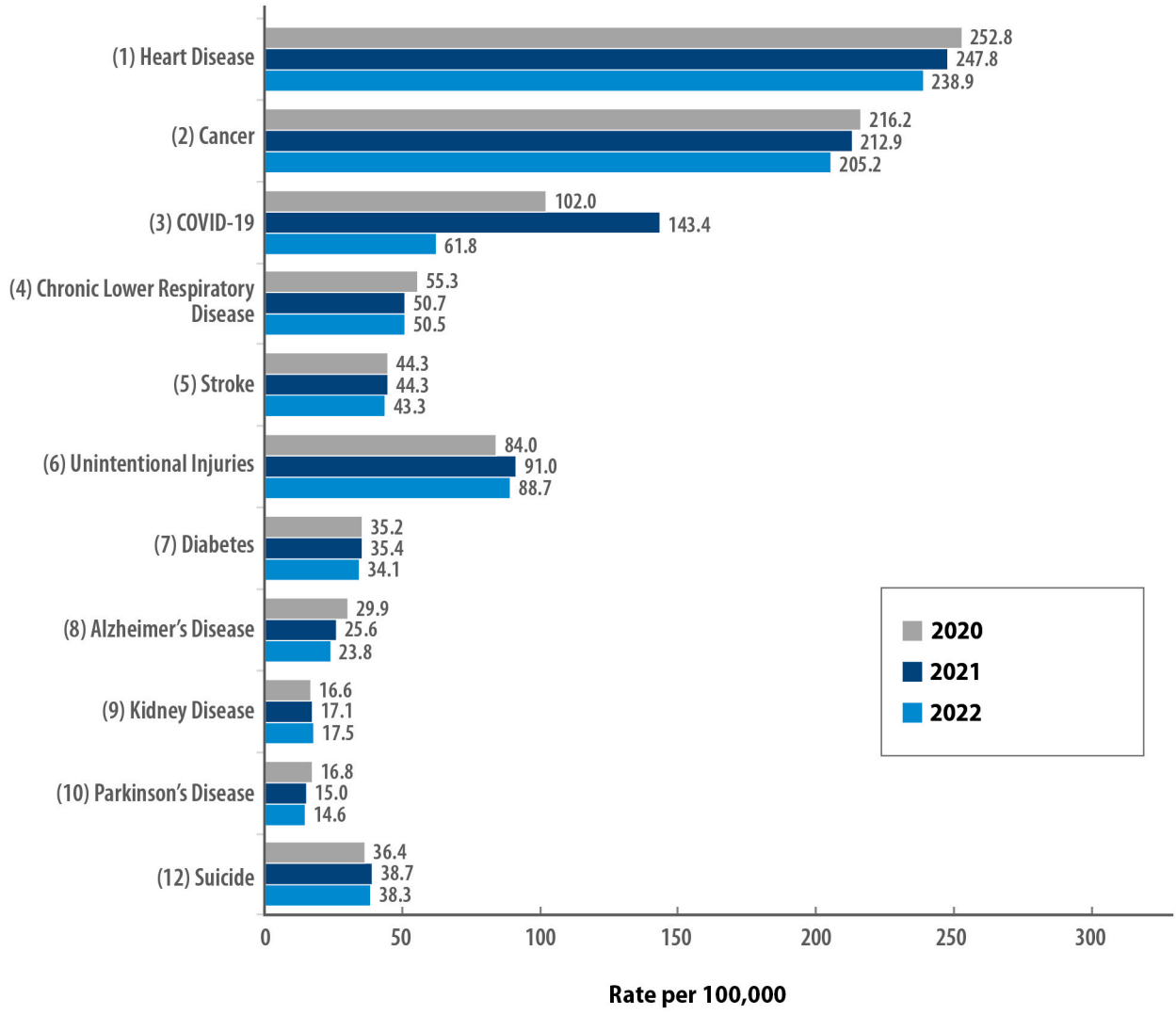
Leading Causes of Death

Veterans, Overall

This section provides information on suicide as a leading cause of death among Veterans in 2022. For each leading cause, we also report age-adjusted cause-specific mortality rates for 2020, 2021, and 2022. In 2022, suicide was the 12th-leading cause of death among Veterans overall.[119]

Figure 44 presents leading causes of death, based on counts of deaths in 2022, and the age-adjusted mortality rate per 100,000,[120] for each cause, in 2020–2022.

Figure 44: Leading Causes of Death in 2022 and Suicide, Veterans, and Associated Age-Adjusted Mortality Rates, 2020–2022



[119] There were 536,536 Veteran deaths in 2020, 517,163 in 2021, and 465,047 in 2022. The unadjusted all-cause Veteran mortality rate in 2020 was 2,783.3 per 100,000, 2,744.9 per 100,000 in 2021, and 2,518.1 per 100,000 in 2022. Causes of death are classified based on the underlying cause of death; leading causes are ranked based on the number of deaths in 2022, by cause.

[120] More detailed age categories were used here than for other age-adjusted rates in this report. This explains why the age-adjusted rate for suicide reported here is 0.1 per 100,000 greater than in other sections of this report.

The relative rank of suicide as a leading cause of death was higher among younger Veterans (Table 8).

Table 8: First and Second Leading Causes of Death and Suicide Ranking, Veterans, by Age and Sex, 2022[121]

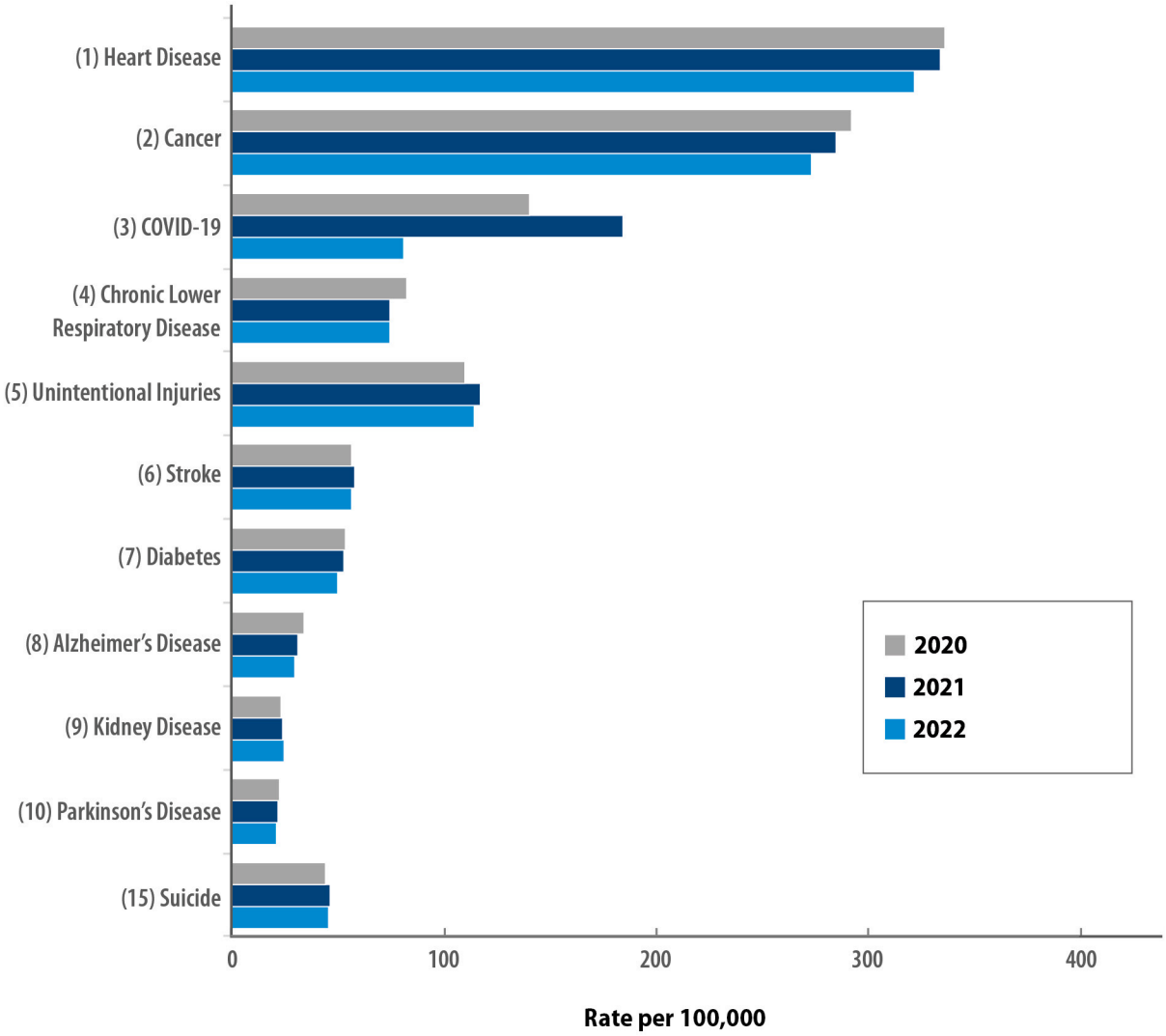
	First Leading Cause	Second Leading Cause	Rank of Suicide
All Veterans			
All Ages	Heart Disease	Cancer	12th
18 to 34	Accident (Unintentional Injury)	***Suicide***	2nd
35 to 44	Accident (Unintentional Injury)	***Suicide***	2nd
45 to 54	Heart Disease	Accident (Unintentional Injury)	4th
55 to 64	Cancer	Heart Disease	9th
65 to 74	Cancer	Heart Disease	14th
75 to 84	Heart Disease	Cancer	16th
85 and older	Heart Disease	Cancer	17th
Female Veterans			
All Ages	Cancer	Heart Disease	10th
18 to 34	Accident (Unintentional Injury)	***Suicide***	2nd
35 to 44	Accident (Unintentional Injury)	***Cancer***	3rd
45 to 54	Cancer	Accident (Unintentional Injury)	4th
55 to 64	Cancer	Heart Disease	10th
65 to 74	Cancer	Heart Disease	15th
75 to 84	Cancer	Heart Disease	--
85 and older	Heart Disease	Alzheimer's disease	--
Male Veterans			
All Ages	Heart Disease	Cancer	12th
18 to 34	Accident (Unintentional Injury)	***Suicide***	2nd
35 to 44	Accident (Unintentional Injury)	Suicide	2nd
45 to 54	Heart Disease	Accident (Unintentional Injury)	4th
55 to 64	Heart Disease	Cancer	9th
65 to 74	Cancer	Heart Disease	14th
75 to 84	Heart Disease	Cancer	16th
85 and older	Heart Disease	Cancer	17th

[121] Ranking is not reported when based on fewer than 10 deaths, indicated by "--."

Recent Veteran VHA Users

- Among Recent Veteran VHA Users in 2022, suicide was the 15th-leading cause of death (Figure 45).

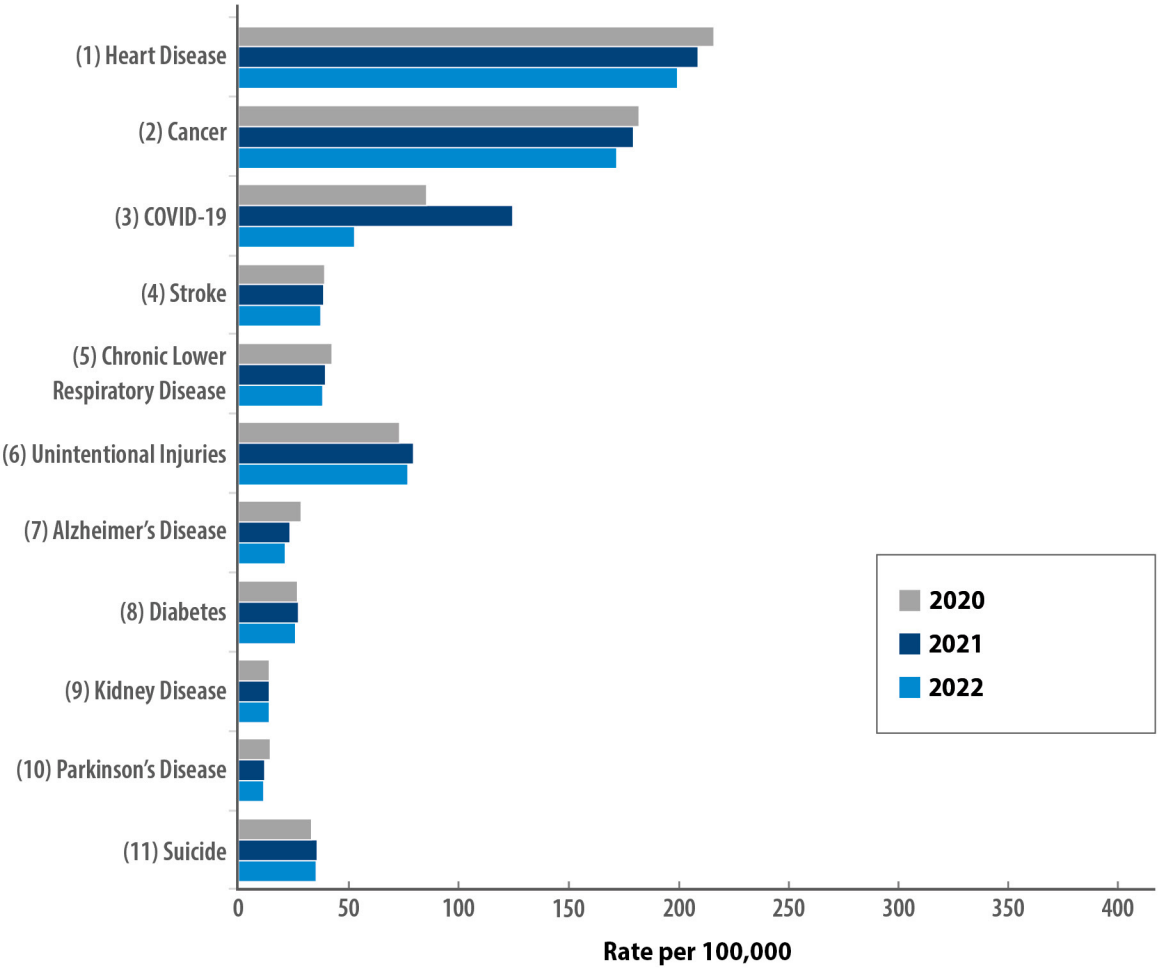
Figure 45: Top 10 Leading Causes of Death, and Suicide, in 2022, Recent Veteran VHA Users, and Associated Age-Adjusted Mortality Rates, 2020–2022



Other Veterans

- Among Other Veterans in 2022, suicide was the 11th-leading cause of death (Figure 46).

Figure 46: Top 10 Leading Causes of Death, and Suicide, in 2021, Other Veterans, and Associated Age-Adjusted Mortality Rates, 2020-2022



- While sharing the same top three leading causes of death (heart disease, cancer, COVID-19), Recent Veteran VHA Users and Other Veterans differed in the ranking of other leading causes of death.
- Despite suicide having a lower rank among leading causes for Recent Veteran VHA Users than for Other Veterans, Recent Veteran VHA Users had a higher age-adjusted suicide mortality rate.

Years of Potential Life Lost

A measure of the relative impact of different causes of death is their contributions to premature mortality, measured in terms of years of potential life lost (YPLL).[122] Suicide returned to the fourth-leading cause of premature mortality among Veterans in 2022, after ranking fifth in 2020 and 2021 due to deaths from COVID-19.[123]

How to Refer to this Report

To refer to this report, please use the following citation:

U.S. Department of Veterans Affairs, Office of Suicide Prevention. 2024 National Veteran Suicide Prevention Annual Report. 2024. Retrieved {date} from <<location>>.

[122] YPLL for individuals who died before age 75 are calculated as (75 minus age at death). YPLL are set to zero for individuals who died at age 75 or older.

[123] The average number of years of premature mortality per Veteran suicide decreased from 18.1 in 2021 to 17.5 in 2022. In 2022, the 6,407 Veteran suicide deaths resulted in an estimated 112,306 years of potential life lost, 6.7% of all YPLL for Veterans who died in 2022. While in 2020 COVID-19 was the fourth-leading cause of premature mortality, in 2022, COVID-19 ranked fifth, with 83,603 estimated YPLL (5.0% of all YPLL for Veterans who died in 2022).