

# ***Suicide Among Veterans and Other Americans***

## **2001–2014**

Office of Suicide Prevention

**3 August 2016**

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U.S. Department  
of Veterans Affairs

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## I. Introduction

The top priority of the U.S. Department of Veterans Affairs (VA) is the health and well-being of all of our Nation's Veterans, including Veterans who have chosen not to enroll in, or are not eligible for, VA health care. As the largest integrated health care system in the country, VA is committed to providing timely access to high-quality, recovery-oriented mental health care that anticipates and responds to Veterans' needs, such as treatment for PTSD, substance use disorders, depression, and suicidal ideation.

In 2014, suicide was the 10th-leading cause of death in the United States, and rates of suicide in the U.S. general population are increasing. Centers for Disease Control and Prevention (CDC) data released in an [April 2016 report](#) indicated that between 1999 and 2014, suicide rates increased among the general population, for both men and women and for all ages. Regardless of suicide rates or the number of cases, one life lost to suicide is too many.

VA has worked tirelessly to develop suicide prevention resources for every Veteran who is experiencing a mental health crisis, whether or not that Veteran is enrolled in the VA Health Care System. In fact, of about 21.6 million\* Veterans across the country — including almost 2 million women — just over 8.5 million\*\* are enrolled for care from a VA provider. VA is committed to identifying and reaching all Veterans who may be at risk for suicide and continues to enhance programs designed to reduce risk among those who receive services from the Veterans Health Administration (VHA). As highlighted in a recent VA-led Call to Action to Prevent Veteran Suicide, eliminating the burden of suicide among Veterans will require participation from a broad group of federal government and community partners. In recognition of this need, VA and its partners are developing innovative strategies to find and help Veterans at risk for suicide through community-based collaborations and expanded supportive services.

As part of the Call to Action, VA has undertaken the most comprehensive analysis of Veteran suicide in our nation's history, examining more than 55 million records from 1979 to 2014 from all 50 states, Puerto Rico, and Washington, D.C. This report describes the results of this effort. It builds on data from previous VA Suicide Data Reports, which were primarily limited to information on Veterans who used VHA health services and to mortality records obtained directly from a small number of states, which included approximately 3 million records. This report on Veteran suicide is unprecedented in its breadth and depth of information about the characteristics of suicide among Veterans. It contains the first comprehensive assessment of differences in rates of suicide among Veterans with and without use of VHA services and comparisons between Veterans and other Americans. This report serves as a foundation for informing and evaluating suicide prevention efforts inside the VHA health care system and for developing lifesaving collaborations with community health care partners.

***Data on Veteran deaths by suicide included in the “Suicide Among All U.S. Veterans, 2001–2014” report have been updated to align with the final 2016 version of the Suicide Data Repository. We note that in the initial report, released in August 2016, some data points regarding overall Veteran suicide mortality in Part 2 included U.S. territories while others excluded them, making the data points inconsistent and therefore not comparable. This updated report excludes U.S. territories from these analyses, due to variations in the availability of National Death Index (NDI) data for the territories. This is consistent with the CDC’s published aggregate suicide counts and rates for the general U.S. population. These revisions have a minimal impact on the overall report.***

\*Source: VA Benefits & Health Care Utilization Pocket Card, Updated 5/13/16; Veteran Population as of 09/30/15 (<http://www.va.gov/vetdata/docs/pocketcards/fy2016q3.pdf>)

\*\*Source: VA Benefits & Health Care Utilization Pocket Card, Updated 5/13/16; Produced by the National Center for Veterans Analysis and Statistics. (<http://www.va.gov/vetdata/docs/pocketcards/fy2016q3.pdf>)

## II. Executive Summary

This report provides information regarding suicide mortality for the years 2001–2014. It incorporates the most recent mortality data from the VA/Department of Defense (DoD) Joint Suicide Data Repository and includes information for deaths from suicide among all known Veterans of U.S. military service. Data for the Joint VA/DoD Suicide Data Repository were obtained from the CDC National Center for Health Statistics' NDI through collaboration with the DoD and the VA/DoD Joint Suicide Data Repository initiative. Data available from the NDI include reports of mortality submitted from vital statistics systems in all 50 U.S. states, Washington, D.C., Puerto Rico, and the U.S. Virgin Islands. However, in Section 2, data reported by Puerto Rico and the U.S. Virgin Islands were excluded due to variations in the availability of data for the U.S. territories.

This report is unprecedented in its comprehensive analysis of suicide rates among all U.S. Veterans. Unlike previous VA reports, this report provides information on all recorded suicides among all known Veterans living in the United States. Additional enhancements include direct comparisons of Veterans' suicide rates with those of analogous civilian populations, calculation of suicide rates among populations with known elevations in suicide risk (e.g., with mental health diagnoses) and groups with emerging risk (e.g., patients who are prescribed opioids), and comparisons between Veterans who do and do not use VHA services. In contrast to previous VA reports, rates of suicide have been calculated by calendar year to facilitate comparison with national statistics and reports from other agencies.

Findings on suicide counts and rates are based on analyses conducted at the VHA Office for Suicide Prevention with support from the VISN 2 Center of Excellence for Suicide Prevention; VISN 19 Mental Illness Research, Education and Clinical Care Center; and the Post-Deployment Health Service. Results from analyses included in this report were obtained using all available information to identify Veterans who died by suicide. This report includes the years 2001–2014. Subsequent analyses will include data from earlier years. Key findings from this year's report include:

- In 2014, an average of 20 Veterans died by suicide each day. Six of the 20 were recent users of VHA services in 2013 or 2014.
- In 2014, Veterans accounted for 18 percent of all deaths by suicide among U.S. adults and constituted 8.5 percent of the U.S. adult population (ages 18 and older). In 2010, Veterans accounted for 20.1 percent of all deaths by suicide and represented 9.6 percent of the U.S. adult population.
- The burden of suicide resulting from firearm injuries remains high. In 2014, about 67 percent of all Veteran deaths by suicide were the result of firearm injuries.
- There is continued evidence of a high burden of suicide among middle-aged and older Veterans. In 2014, about 65 percent of all Veterans who died by suicide were ages 50 and older.
- After adjusting for differences in age and sex, risk for suicide was 22 percent higher among Veterans compared with U.S. civilian adults. (2014)
- After adjusting for differences in age, risk for suicide was 19 percent higher among male Veterans compared with U.S. civilian adult men. (2014)
- After adjusting for differences in age, risk for suicide was 2.5 times higher among female Veterans compared with U.S. civilian adult women. (2014)
- In 2014, rates of suicide were highest among younger Veterans (ages 18–29) and lowest among older Veterans (ages 60 and older).

### III. Background

Rates of suicide have been increasing for both men and women and across all age groups in the United States. According to a recent CDC report, the age-adjusted rate of suicide increased by 24 percent between 1999 and 2014.<sup>1</sup> Findings from this same report show that increases in rates of suicide were higher between 2006 and 2014 than they were during earlier time periods. Although women have lower rates of suicide compared to men in the general population, rates of suicide increased more among women than among men during the study period. While overall rates of suicide have increased in the United States, suicides resulting from a firearm injury have decreased since 1999. According to the CDC, the proportion of suicides resulting from a firearm injury decreased by more than 10 percent among men and 16 percent among women in the U.S. general population. Finally, different patterns were seen in the distribution of suicide rates across age groups for men and women. With some slight variability, rates of suicide increased with age among men in the U.S. general population, with the highest rates of suicide among men ages 75 and older. In contrast, rates of suicide among women in the U.S. general population peaked during middle age, with the highest rates among women ages 45–64.

VA has released two previous Suicide Data Reports (2012, 2014). While these previous reports did not include information on the characteristics of suicide among all Veterans, the available information did provide valuable insight into potential differences between suicide among those with history of U.S. military service and other Americans. Of particular importance were findings of increases in rates of suicide among younger Veterans (ages 18–29), sex-based differences in changes in rates among female Veterans who used VHA services, and a comparatively high prevalence (approximately 66 percent) of suicides resulting from a firearm injury. Results included in this report provide the first systematic assessment of characteristics of suicide among Veterans with and without use of VHA services and comparison to rates of suicide among other Americans (i.e., civilians).

### IV. Methodology

Data for this report were obtained by linking information from VA and DoD administrative records with cause of death information included in the CDC's NDI. Information from multiple program offices and record systems was combined to create a comprehensive population record of Veterans for the years of interest. From VA, information was obtained from population rosters maintained by the Office of Policy and Planning, deployment and service rosters maintained by the Post-Deployment Health Service, and VHA clinical and administrative records. Information on all Veterans who separated from active duty service or who had been activated during service in a Reserve component or the National Guard was obtained from the DoD Defense Manpower Data Center. In total, more than 50 million records were submitted to the NDI for retrieval of information on fact and cause of death.

This report is divided into two sections, parts 1 and 2. Part 1 includes information on rates of suicide among all VHA patients and compares these rates to suicide rates among the general U.S. population. Consistent with past practice, rates of suicide and estimates of relative risk presented in the first section include information on all users of VHA services (Veterans and other users) with comparison to rates of suicide among members of the U.S. general population. Part 2 includes information on rates of suicide among only Veterans, including both those who used VHA clinical services and those who did not. The report compares these with suicide rates among non-Veteran adult civilians. In both sections of this report, Veteran suicide decedents were considered users of VHA services if there was at least one record of inpatient or outpatient care in the calendar year of or before death.

## **V. Results – Part 1: Suicide Among VHA Patients With Comparison to the U.S. General Population, 2001–2014**

This section provides information regarding suicide mortality among all VHA patients, including those who were not Veterans. Findings on suicide counts, rates, and risk factors in this section are based on analyses conducted at the VHA's Office of Mental Health Operations' Serious Mental Illness Treatment Resource and Evaluation Center. For the years 2001–2014, the rates of suicide among patients who used VHA health care services in the year of death or in the previous calendar year have been evaluated overall and by sex and age group.

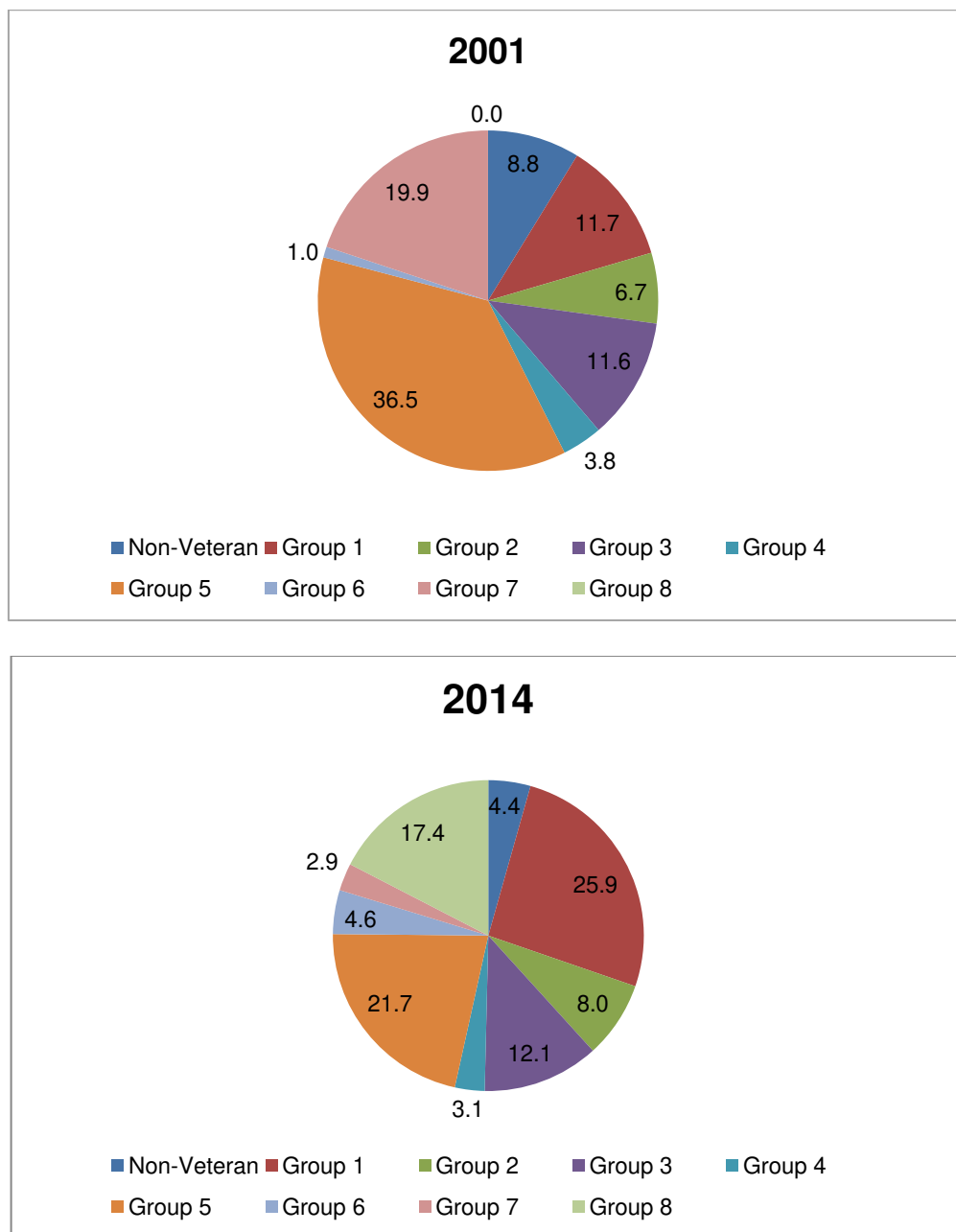
### **A. VHA Patient Population**

VHA provides health care to a large and diverse patient population and, as is true with many health systems, provides care for patients with complex health problems, some of which are associated with increased risk for suicide. It is also important to note that not all Veterans are equally eligible to receive VHA services. One way of understanding the characteristics of VHA's patient population is to examine the type of eligibility assigned to each Veteran who received VHA care. Veterans are assigned priority groups that determine their eligibility status for VHA services. Eligibility is largely, but not solely, based on service-connected disability level and income. Since 2001, some notable changes in the VHA patient population have occurred. Specifically, the proportion of VHA Veterans with a 50 percent or higher service-connected disability has more than doubled, increasing from 11.7 percent in 2001 to 25.9 percent of all VHA patients in 2014. At the same time, the proportion of non-Veteran VHA patients has decreased significantly, dropping from 8.8 percent in 2001 to 4.4 percent of all VHA patients in 2014.<sup>2</sup> Additional changes in the patient population distribution by priority enrollment group can be seen in Figure 1.

1. Curtin SC, Warner M, Geedegaard H. Increase in suicide in the United States, 1999–2014. NCHS data brief, no. 241. Hyattsville, MD: National Center for Health Statistics. 2016.

2. Details on priority group enrollment criteria can be found at: [http://www.va.gov/HEALTHBENEFITS/resources/priority\\_groups.asp](http://www.va.gov/HEALTHBENEFITS/resources/priority_groups.asp)

Figure 1. VHA Patient Distribution by Enrollment Priority Group (percent), 2001 and 2014



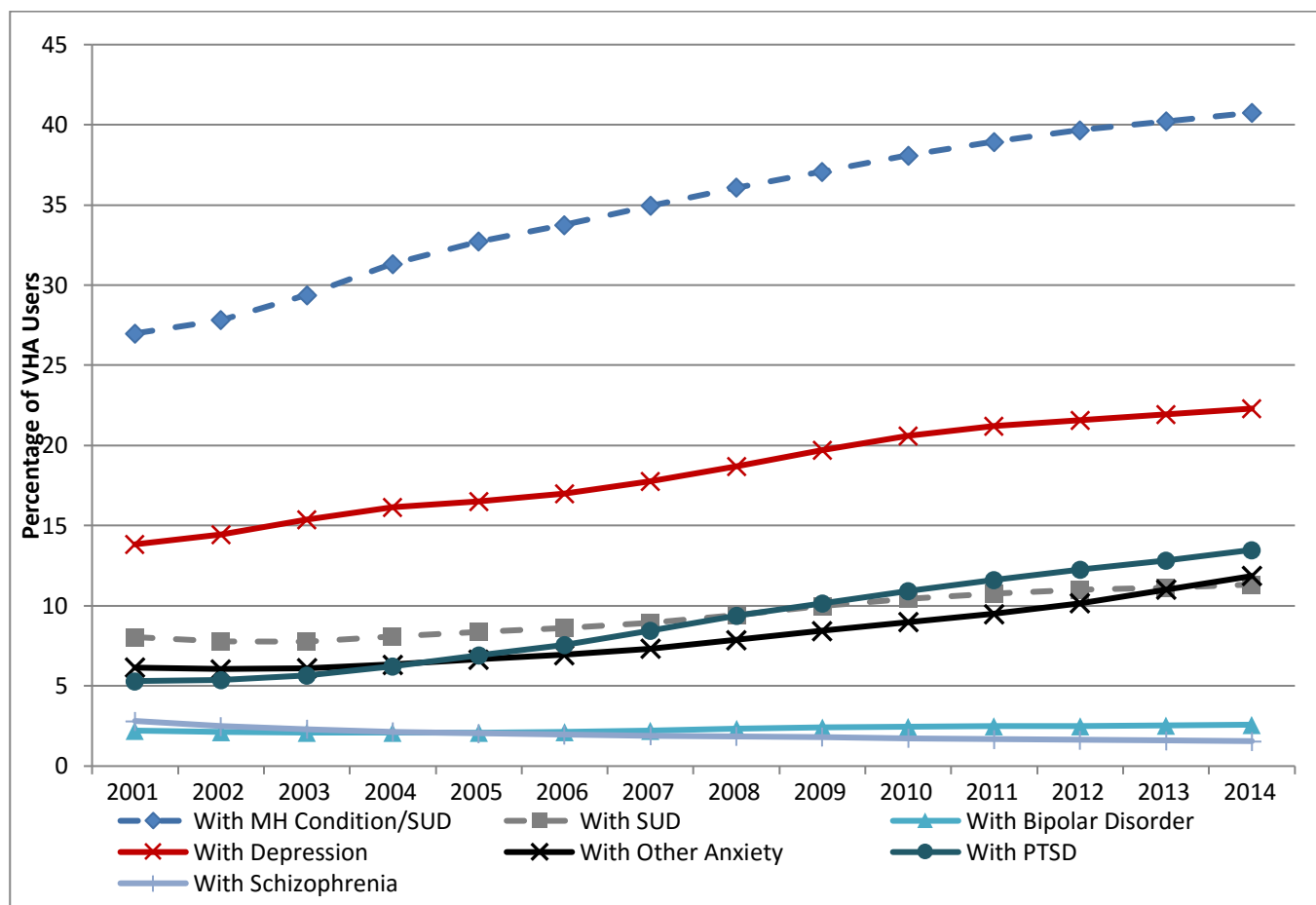
Priority Group Descriptions: **Group 1** = ≥ 50 percent service-connected disability; **Group 2** = 30–40 percent service-connected disability; **Group 3** = 20 percent service-connected disability, prisoners of war, other special categories; **Group 4** = Veterans who are receiving aid and attendance or housebound benefits from VA, or Veterans who have been determined to be catastrophically disabled; **Group 5** = nonservice-connected Veterans and noncompensable service-connected Veterans rated 0 percent disabled by VA with annual income below the VA and geographically (based on resident ZIP code) adjusted income limits, Veterans receiving VA pension benefits, Veterans eligible for Medicaid programs; **Group 6** = all other Veterans not required to make a copay; **Group 7** = Veterans with gross household income below the geographically adjusted income limits for their resident location and who agree to pay copays; **Group 8** = Veterans with gross household income above the VA and the geographically adjusted income limits for their resident location and who agree to pay copays.



## B. Mental Health and Substance Use Disorders Among VHA Patients

Mental health disorders, including major depression and other mood disorders, have been associated with increased risk for suicide.<sup>3</sup> Since 2001, the proportion of VHA users with mental health conditions or substance use disorders (SUD) has increased from 27 percent in 2001 to 41 percent in 2014. The increased prevalence of mental health disorders among VHA patients compared to the U.S. adult population should not be taken as an indicator of the overall mental health of the larger Veteran population. Rather, this information may explain differences in suicide rates among VHA patients compared to rates of suicide in the general population.

Figure 2. Percentage of VHA Users With Diagnoses of Mental Health (MH) Condition/Substance Use Disorder (SUD) by Calendar Year

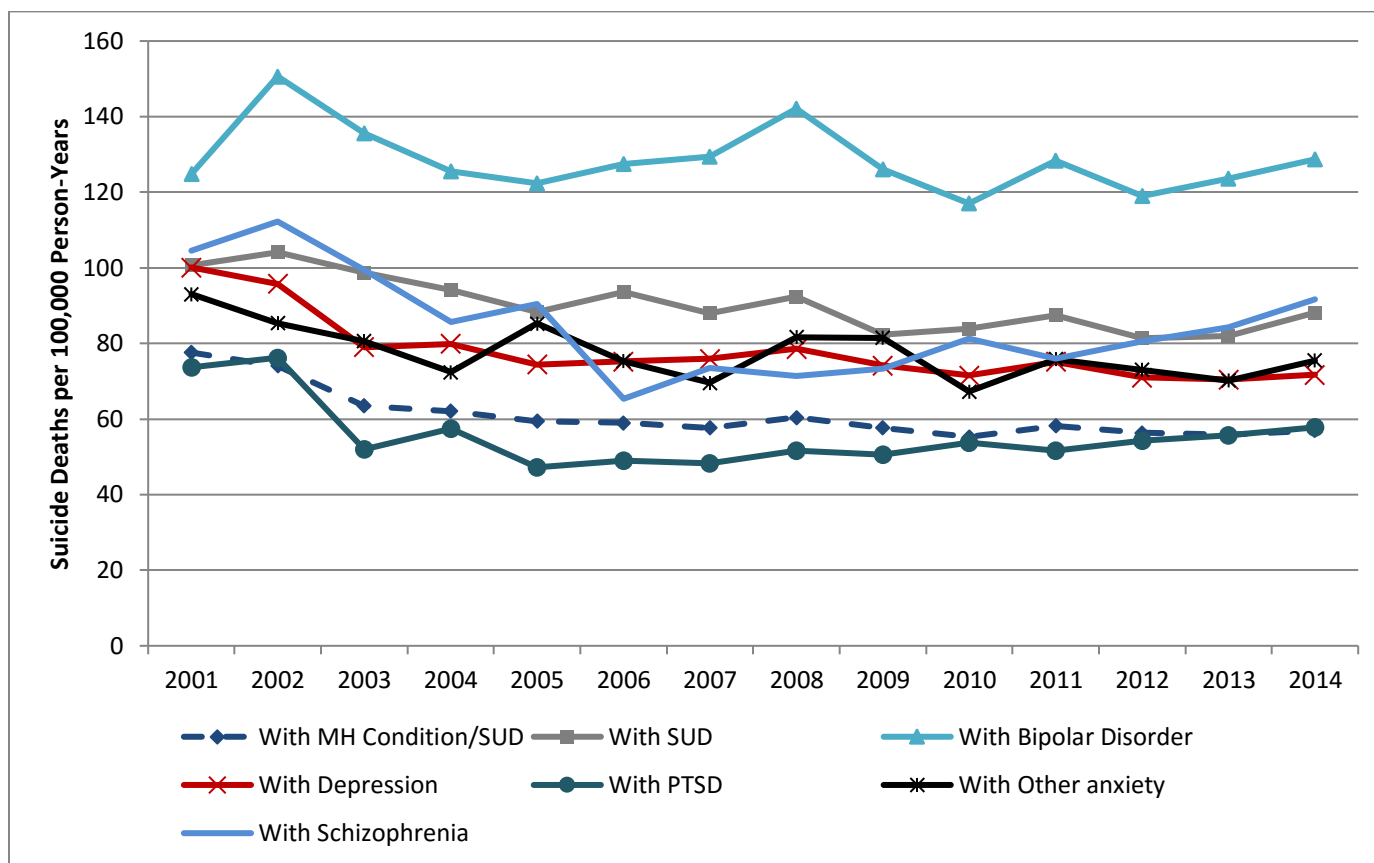


**Main Finding: The percentage of VHA users diagnosed with a mental health condition or a SUD has increased substantially since 2001.**

3. Harris, E.C. & Barraclough, B. (1997) Suicide as an outcome for mental health disorders. A meta-analysis. *Br J Psychiatry*, 170, 205-228.



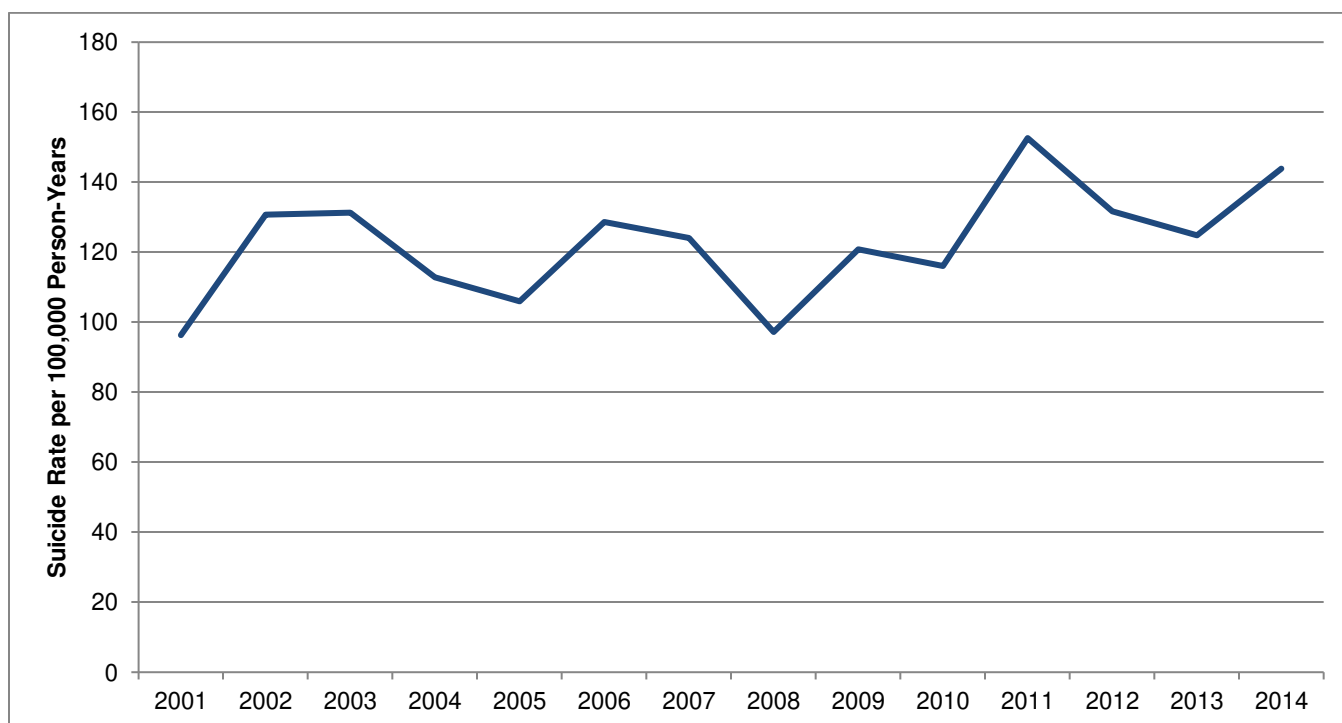
Figure 3. Suicide Rate (per 100,000 Person-Years) Among VHA Users With Mental Health (MH) Conditions/Substance Use Disorders (SUD), by Condition and Calendar Year



**Main Finding:** Compared to 2001, rates of suicide have decreased among VHA patients diagnosed with a mental health condition or a SUD.

Figure 4 provides information on rates of suicide among those patients diagnosed with opioid use disorder (OUD), a condition with emerging evidence of suicide risk. As shown in Figure 4, rates of suicide have increased among VHA patients with an OUD and are comparable to rates of suicide among VHA patients diagnosed with severe depression (BPD).

**Figure 4. Suicide Rate per 100,000 Person-Years Among VHA Users by Receipt of Opioid Use Disorder Diagnosis by Calendar Year**



**Main Finding: Rates of suicide were elevated among VHA patients diagnosed with an OUD and have increased since 2001.**

Overall, suicide rates are highest among patients with mental health condition and SUD diagnoses who are in treatment and lower among those who received a mental health condition diagnosis but were not sick enough to require enhanced care from a mental health care provider (Table 1).

**Table 1. Suicide Rates by Receipt of Mental Health (MH)/Substance Use Disorder (SUD) Diagnosis or Treatment and Calendar Year**

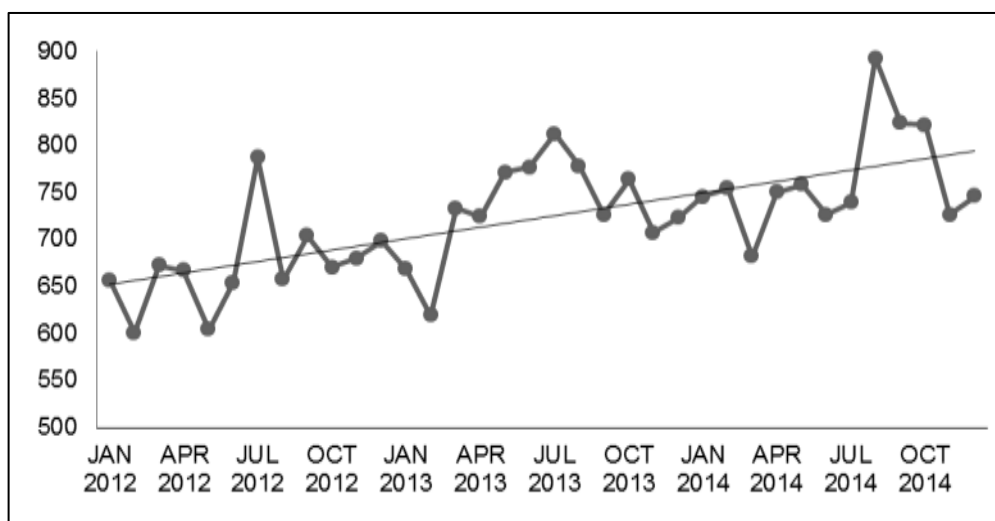
Characteristics	Calendar Year													
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total	39.9	39.0	34.9	35.9	34.9	35.9	35.1	38.4	37.0	36.4	38.9	37.9	38.8	39.2
With MH treatment	84.0	81.4	68.9	69.8	65.0	68.1	64.3	70.7	65.1	62.4	66.3	63.4	62.3	65.6
Without MH treatment	27.7	27.6	25.8	26.6	26.3	26.3	25.9	27.2	26.5	26.1	27.4	26.8	28.1	26.7
With MH/SUD diagnosis	77.6	74.1	63.5	62.1	59.4	59.0	57.7	60.4	57.7	55.3	58.2	56.2	55.8	57.0
Without MH/SUD diagnosis	24.7	24.5	22.3	23.3	22.5	23.6	22.5	25.4	24.2	24.2	25.9	25.3	26.7	26.3
With MH/SUD diagnosis and MH treatment	89.8	88.2	74.6	75.2	70.6	72.4	69.1	75.3	68.4	65.5	69.3	65.6	65.5	68.2
With MH/SUD diagnosis, without MH treatment	52.9	49.0	46.0	43.1	43.2	39.4	40.4	36.2	38.9	36.6	37.3	38.3	36.9	34.4
Without MH/SUD diagnosis, with MH treatment	38.7	27.9	23.1	24.6	18.3	30.7	21.7	32.0	36.9	36.0	42.8	46.9	39.8	47.6
Without MH/SUD diagnosis, without MH treatment	24.2	24.3	22.3	23.3	22.7	23.3	22.5	25.1	23.6	23.5	24.9	23.9	25.8	24.8

**Main Finding: VHA patients with mental health condition or SUD diagnoses who accessed mental health treatment services have higher rates of suicide than other VHA patients.**

### C. History of Non-Fatal Suicide Attempt

A history of non-fatal suicide attempts is recognized to be among the most robust risk factors for suicide. Among VHA patients, reports of suicide attempt can be identified through review of external injury codes associated with health services (obtained from medical records) or from the Suicide Prevention Applications Network (SPAN), VHA's internal suicide event case management and tracking system. As shown in Figure 5, based on SPAN data, monthly reports of non-fatal suicide attempts increased between 2012 and 2014, ranging from just over 600 reported attempts in May 2012 to almost 900 in August 2014. VHA's health care system includes an increasing number of patients with factors associated with risk for suicide, such as a history of suicide attempts (see Figure 5). Limitations in the standardized reporting of suicide attempts within health care systems have been noted in electronic medical records and SPAN. Figure 5 should be viewed for changes over time and not the total number of reported SPAN suicide attempts.

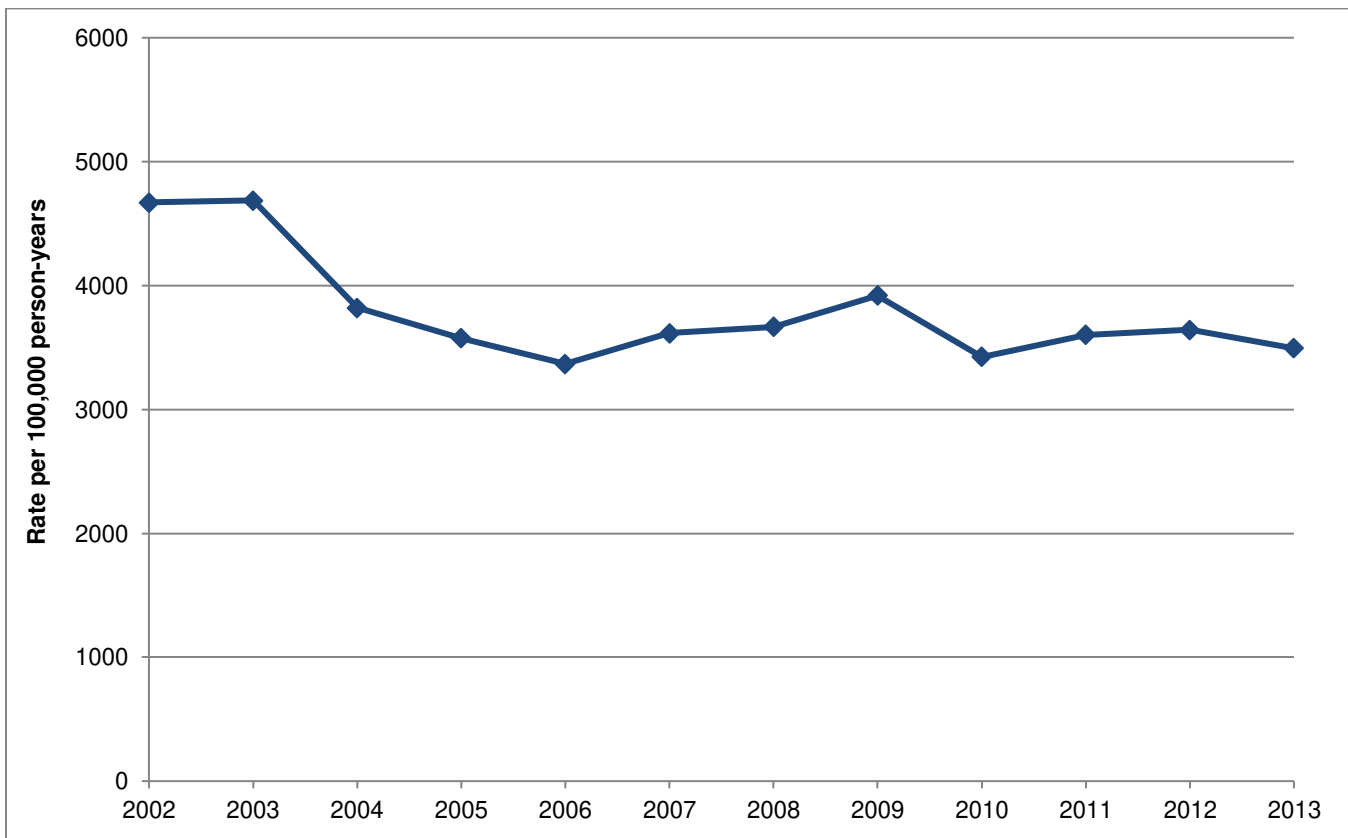
Figure 5: Number of Suicide Attempts Reported Through VA's Suicide Prevention Applications Network per Month, 2012–2014



Several steps were taken to assess suicide among VHA users with a history of non-fatal suicide attempt. VHA users with a suicide attempt indication were identified in calendar years 2002–2013 based on indications in inpatient or outpatient encounter records (ICD-9 code E95, excluding E95.9). For each year, the first attempt indication was used as the index date. Non-fatal attempts were identified by survival seven days post-indication date. Among those with non-fatal attempts, suicide and all-cause mortality were assessed from eight to 365 days following the index date of the suicide attempt. As mortality data are currently available only through 2014, analyses are not presented for the 2014 cohort, given limited observable follow-up time. Although both all-cause and suicide-specific 12-month mortality was high among this patient subpopulation, all-cause mortality decreased from 2001 to 2014, and suicide rates in the 12 months following attempt remained relatively stable over the period of observation (Figures 6 and 7).

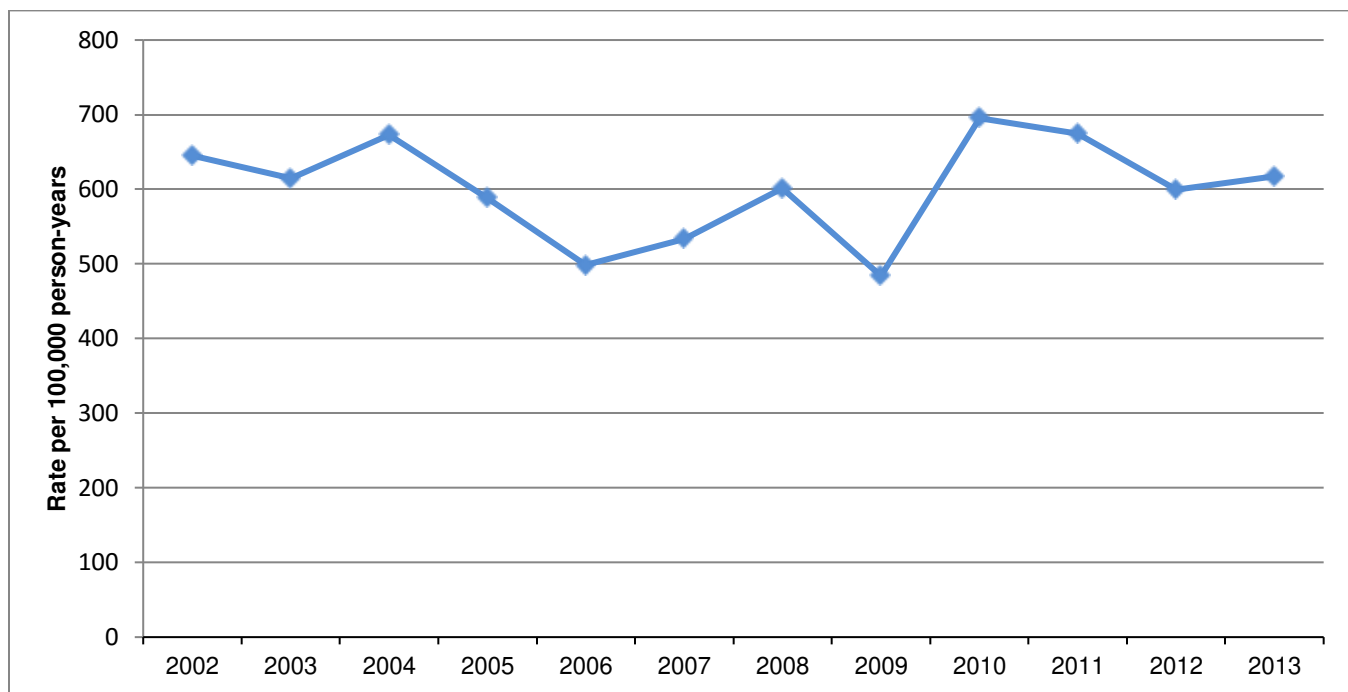
4. Anderson H.D., Et. Al. (2015) Monitoring Suicidal Patients in Primary Care Using Electronic Health Records. *J Amer Board Fam Med*, Vol. 28, No. 1 (pg 66).
5. Hoffmire C., Et. Al. (2016) VA Suicide Prevention Applications Network: A National Health Care System – Based Suicide Event Tracking System. *Public Health Reports*, Vol. 131 (6) (pg 816)

Figure 6. 12-Month All-Cause Mortality Following Suicide Attempt Indication, 2002–2013



**Main Finding: All-cause mortality in the 12 months following a suicide attempt has decreased since 2002.**

Figure 7. 12-Month Suicide Mortality Following Suicide Attempt Indication, by Calendar Year



**Main Finding: Rates of suicide in the 12 months following a suicide attempt have remained stable since 2002.**

## D. Total and Sex-Specific VHA Patient Suicide Rates

For 2001–2014, the suicide rate among all VHA patients who used VHA services in the year of death or in the previous calendar year were evaluated. These are listed in Table 2 and depicted in Figure 8, below. Overall, rates of suicide among all VHA patients decreased between 2001 and 2003, remained relatively stable between 2004 and 2007, and increased between 2008 and 2011. However, while the suicide rate among male patients remained relatively stable between 2001 and 2014, the rate increased among female VHA patients during that same time period. Overall, the observed increase in the suicide rate among female VHA patients between 2001 and 2014 is consistent with a comparatively greater increase in the suicide rate among women in the U.S. general population, as reported by the CDC in 2017.

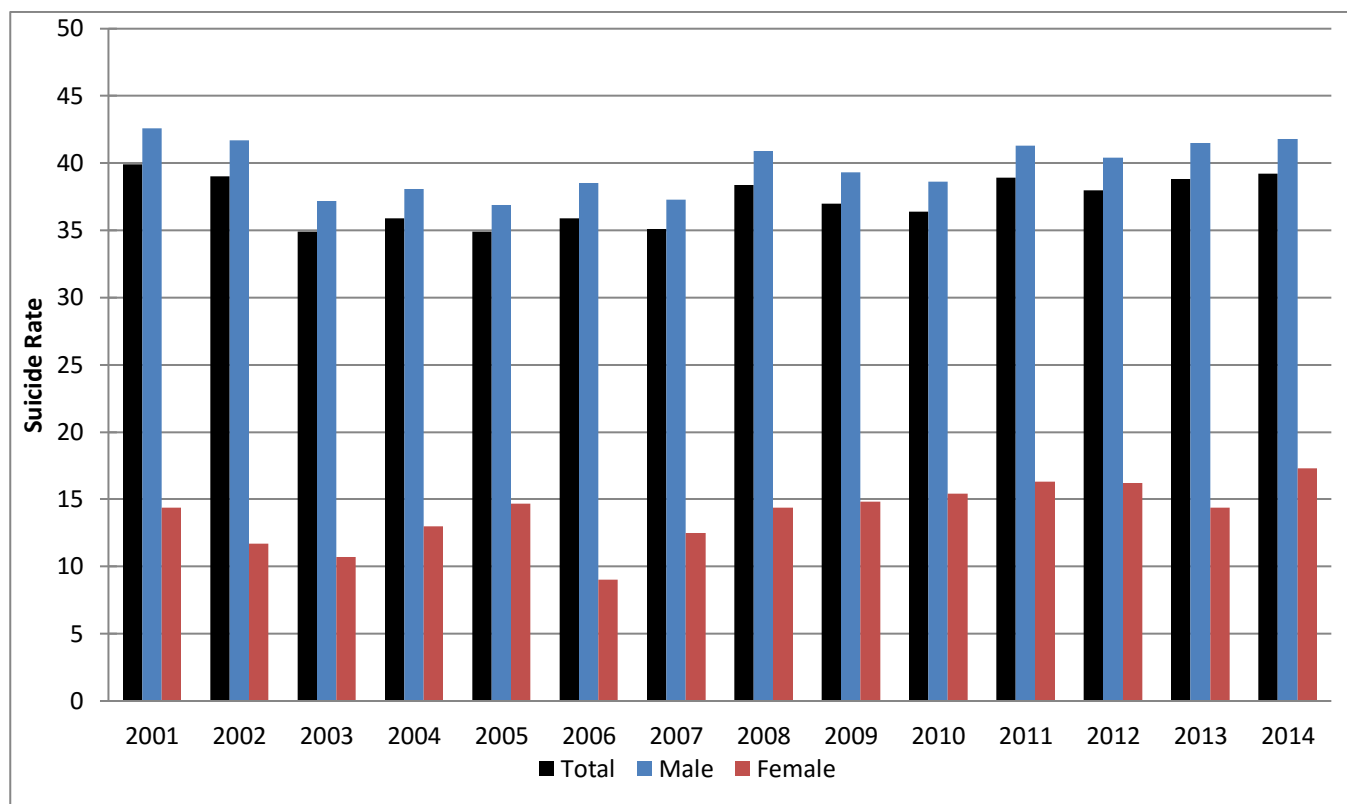
Table 2. Suicide Rates by Sex and Calendar Year

Calendar Year	Suicide Rate (per 100,000 person-years)		
	Total	Male	Female
2001	39.9	42.6	14.4
2002	39.0	41.7	11.7
2003	34.9	37.2	10.7
2004	35.9	38.1	13.0
2005	34.9	36.9	14.7
2006	35.9	38.5	9.0
2007	35.1	37.3	12.5
2008	38.4	40.9	14.4
2009	37.0	39.3	14.8
2010	36.4	38.6	15.4
2011	38.9	41.3	16.3
2012	38.0	40.4	16.2
2013	38.8	41.5	14.4
2014	39.2	41.8	17.3

**Main Finding: Rates of suicide among users of VHA services have remained relatively stable in recent years.**



Figure 8. Suicide Rates Among VHA Users by Sex and Calendar Year



**Main Finding: Rates of suicide among male and female users of VHA services have remained relatively stable in recent years.**

## E. Differences in VHA Patient Suicide Rates by Age and Sex

Table 3 provides information on suicide rates among VHA patients by age group and sex. In contrast to age-based differences in suicide rates in the U.S. general population, among VHA patients the suicide rate for those ages 18–29 was lower than or comparable to that of older Veterans in 2001. VHA patients ages 18–29 had the highest suicide rate in 2014, while those ages 60–79 had the lowest rate that year. It is likely that this finding is strongly influenced by patterns of suicide among men. Among female VHA patients, the highest suicide rate (in 2014) was observed for women ages 40–59, a pattern that generally held for each year 2001–2014.

Table 3. Overall Suicide Rates by Calendar Year, Age, and Sex

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Total</b>	39.9	39.0	34.9	35.9	34.9	35.9	35.1	38.4	37.0	36.4	38.9	38.0	38.8	39.2
18–29	24.8	30.4	27.0	28.8	21.2	35.5	29.7	36.8	37.7	44.5	50.6	54.4	60.7	58.4
30–39	43.8	41.1	39.5	35.0	36.9	35.8	36.0	33.7	37.2	39.4	44.0	40.5	43.0	46.2
40–49	49.0	47.6	42.5	46.3	44.4	34.2	42.1	42.6	40.1	39.2	45.0	41.2	41.1	41.0
50–59	41.8	42.9	37.9	38.4	36.5	41.1	38.7	43.5	42.1	42.0	45.5	41.1	35.0	39.7
60–69	32.6	29.3	31.1	29.9	29.9	31.7	31.4	36.7	31.5	32.3	30.5	29.2	31.0	32.2
70–79	37.2	35.6	30.4	32.2	31.4	34.2	30.3	32.6	33.5	32.0	32.8	36.3	41.1	34.1
80+	47.5	47.7	36.6	40.0	40.4	36.9	37.8	40.8	41.8	35.4	43.6	44.7	44.1	45.8
<b>Male</b>	42.6	41.7	37.2	38.1	36.9	38.5	37.3	40.9	39.3	38.6	41.3	40.4	41.5	41.8
18–29	33.9	39.5	37.3	38.4	27.8	48.2	37.4	48.4	45.5	55.4	60.4	67.0	74.6	73.3
30–39	54.3	51.2	45.6	42.5	44.7	44.3	43.1	40.0	45.1	47.7	54.3	49.2	51.5	55.5
40–49	55.7	54.7	49.1	52.7	48.6	40.8	49.1	50.6	46.4	44.8	51.8	46.6	46.3	45.6
50–59	44.2	45.8	40.7	40.8	39.3	44.0	41.5	45.9	45.6	45.8	50.2	45.4	39.4	43.6
60–69	33.4	30.5	32.1	30.9	31.1	32.9	32.4	38.1	32.4	32.8	31.1	30.0	32.0	33.1
70–79	38.0	36.2	30.9	32.8	31.5	34.7	30.9	33.2	34.0	32.7	33.3	36.4	42.0	34.5
80+	49.0	49.5	38.1	41.0	41.5	38.0	38.9	41.5	43.0	36.4	44.6	45.7	44.9	46.7
<b>Female</b>	14.4	11.7	10.7	13.0	14.7	9.0	12.5	14.4	14.8	15.4	16.3	16.2	14.4	17.3
18–29	5.7	11.9	5.9	9.0	6.7	4.7	10.2	5.4	15.2	11.1	19.3	12.9	15.7	11.0
30–39	13.1	10.9	21.1	12.6	13.8	10.9	15.7	15.9	14.9	15.3	13.5	14.4	17.4	17.6
40–49	18.1	15.9	13.9	19.7	27.4	7.8	14.8	12.8	16.7	17.4	18.1	20.3	20.6	22.7
50–59	14.5	9.7	5.6	11.2	7.5	12.9	13.8	25.3	18.1	18.8	18.1	18.1	11.8	20.0
60–69	17.1	4.8	9.5	9.6	4.8	6.8	8.6	4.0	9.0	19.4	14.7	11.9	9.7	14.5
70–79	14.6	15.9	7.0	0.0	25.9	5.3	0.0	0.0	10.8	0.0	10.6	31.4	0.0	14.7
80+	14.6	5.9	0.0	16.9	15.3	7.8	8.2	17.7	0.0	0.0	5.2	0.0	5.7	0.0

**Main Finding: Rates of suicide among younger male users of VHA services, ages 18–29, have been rising in more recent years while the suicide rates for other male age groups have remained relatively stable. Rates of suicide among younger female users of VHA services have increased in recent years.**

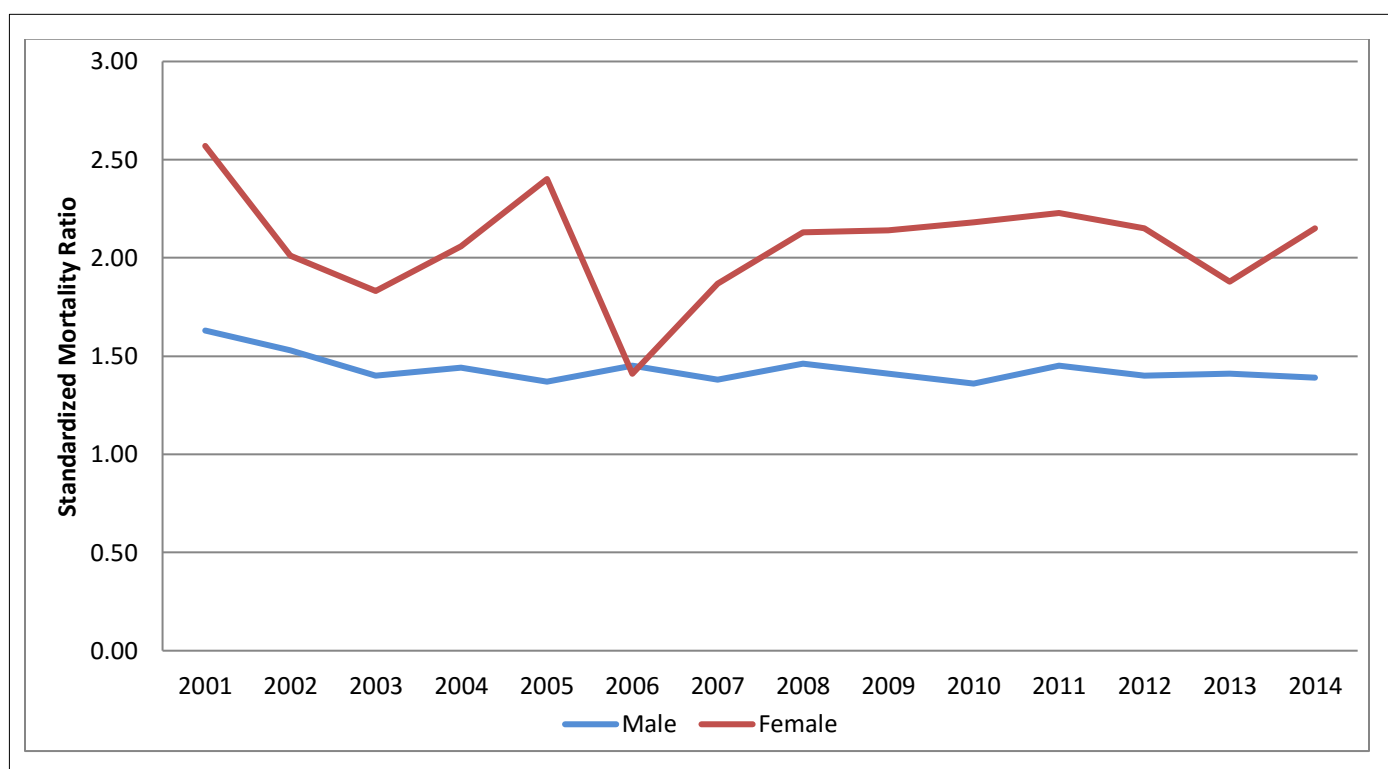
## F. Comparison of Suicide Rates Among VHA Users and the General U.S. Population

Table 4 and Figure 9 provide information on changes in relative risk for suicide among VHA patients compared to members of the U.S. general population. It is important to note that data for the general U.S. population include all suicides among U.S. residents, regardless of age or Veteran status. As shown in Table 4, compared to suicide rates in the U.S. general population, risk for suicide among all VHA patients, as well as for men and women separately, has decreased since 2001.

Table 4. Standardized Mortality Ratios Among VHA Users Compared to the General U.S. Population by Sex and Calendar Year

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total	1.65	1.54	1.41	1.46	1.39	1.45	1.39	1.47	1.43	1.38	1.47	1.42	1.42	1.41
Male	1.63	1.53	1.40	1.44	1.37	1.45	1.38	1.46	1.41	1.36	1.45	1.40	1.41	1.39
Female	2.57	2.01	1.83	2.06	2.40	1.41	1.87	2.13	2.14	2.18	2.23	2.15	1.88	2.15

Figure 9. Standardized Mortality Ratio (SMR) for Suicide Among VHA Users by Sex and Calendar Year



**Main Finding:** Compared with the U.S. general population, risk for suicide among users of VHA services has decreased since 2001 among both men and women.

## G. Suicide Among OEF/OIF/OND VHA Users

Risk for suicide following separation from active duty service remains a concern among Veterans of Operation Enduring Freedom, Operation Iraqi Freedom, and Operation New Dawn (OEF/OIF/OND). Rates of suicide among OEF/OIF/OND Veterans who used VHA services are listed by age group and sex in Table 5. Rates of suicide were highest among male OEF/OIF/OND Veterans ages 18–29 and decreased with age. However, the small number of OEF/OIF/OND Veterans who are ages 60 and older or who are female limits consideration of age and sex-based differences in risk for suicide among members of this group. Table 6 provides information on suicide rates among Veterans coming from active duty service and members of Reserve or National Guard components who were activated in support of operations in Afghanistan and Iraq. Suicide rates were lower among members of the Reserve and National Guard over the observation period.

Table 5. Suicide Rates Among OEF/OIF/OND VHA Users by Sex, Age Group, and Calendar Year

Sex and Age Group	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total	0.0	0.0	26.8	26.8	20.6	24.5	30.1	34.6	32.9	30.4	45.2	45.1	50.4	47.8
18–24	0.0	0.0	21.5	54.6	12.5	22.8	35.1	60.5	47.2	46.9	73.0	66.3	85.0	110.3
25–29	0.0	0.0	32.1	37.3	24.6	44.5	33.7	37.7	35.7	38.4	46.9	55.9	67.1	56.3
30–39	0.0	0.0	38.0	7.2	30.6	20.0	35.2	31.7	28.3	28.2	50.0	50.8	52.3	51.2
40–49	0.0	0.0	23.4	8.6	22.3	14.6	21.3	16.5	23.8	17.6	32.5	23.5	31.2	28.0
50–59	0.0	0.0	0.0	0.0	0.0	0.0	7.2	16.7	35.0	10.3	16.3	21.8	12.4	22.9
60–69	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.7	0.0	0.0	0.0
70–79	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Male	0.0	0.0	31.5	31.4	21.8	28.2	34.0	38.8	34.7	33.1	49.2	49.1	55.0	52.5
18–24	0.0	0.0	27.0	67.2	15.0	27.0	38.6	69.8	49.7	53.2	75.4	75.3	92.9	124.0
25–29	0.0	0.0	39.5	45.2	29.3	52.4	39.5	42.7	39.5	43.6	52.0	60.9	73.8	62.7
30–39	0.0	0.0	43.8	8.3	35.0	22.8	40.2	36.4	29.9	29.5	57.1	54.6	57.8	57.6
40–49	0.0	0.0	26.5	9.5	14.9	16.3	23.7	16.6	23.6	18.4	33.3	26.4	32.7	28.8
50–59	0.0	0.0	0.0	0.0	0.0	0.0	7.9	18.4	34.0	7.7	18.3	22.1	14.0	22.6
60–69	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.5	0.0	0.0	0.0
70–79	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Female	0.0	0.0	0.0	0.0	13.0	0.0	3.4	5.4	20.0	11.1	17.1	17.5	18.8	15.7
18–24	0.0	0.0	0.0	0.0	0.0	0.0	13.8	0.0	29.0	0.0	55.5	0.0	29.1	16.7
25–29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7	12.2	5.2	13.9	22.2	21.5	12.9
30–39	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.2	19.8	5.1	27.8	18.9	12.8
40–49	0.0	0.0	0.0	0.0	88.6	0.0	0.0	16.3	25.9	10.6	26.0	0.0	19.0	22.3
50–59	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.6	32.9	0.0	19.3	0.0	24.8
60–69	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70–79	.	.	0.0	.	.	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80+	.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Main Finding: Rates of suicide were highest among younger male OEF/OIF/OND Veterans.**

Table 6. Suicide Rates per 100,000 Person-Years Among OEF/OIF/OND VHA Users (Active Duty or Reserve/National Guard) by Calendar Year

	2007	2008	2009	2010	2011	2012	2013	2014
Active Duty	35.0	43.0	36.2	35.4	48.6	49.2	54.9	54.9
Reserve	25.6	25.8	29.1	24.3	40.9	39.4	43.2	35.6

**Main Finding: Compared with rates of suicide among Veterans of the National Guard or Reserve components, rates of suicide were higher among OEF/OIF/OND active duty Veterans.**

## VI. Results – Part 2: Suicide Among All U.S. Veterans, 2001–2014

An important enhancement to this year's report is the availability of information on rates and characteristics of suicide among all Veterans, regardless of VHA use, during the period of observation (2001–2014). Data on suicide among all Veterans were obtained from the VA/DoD Joint Suicide Data Repository. Rates of suicide among the Veteran population were calculated using the Vet Pop 2001 population projection estimates. In general, use of the U.S. Census Bureau American Community Survey estimates is suggested, but these are not available for all years included here. Counts of death for the entire U.S. adult population (ages 18 and older) were obtained from the CDC's WONDER system.<sup>4</sup> Rates of suicide for the civilian population were calculated using estimates of the total U.S. population obtained from WONDER and removing counts for known Veteran suicides for each year within each age and sex subgroup of interest. Crude rates of suicide per 100,000 were calculated for each year and by age and sex for Veterans overall, by use of VHA services, and among civilians. Age adjustment, using the 2000 U.S. standard population, was used to assess differences in rates within groups over time.<sup>5</sup>

Estimates of relative risk for suicide were calculated using standardized mortality ratios (SMRs). SMRs can be interpreted as the difference in suicide risk between two populations. SMRs with a value of 1 indicate no difference in risk. SMRs were used to compare rates across groups for any given year, accounting for differences in age and sex composition between the groups.

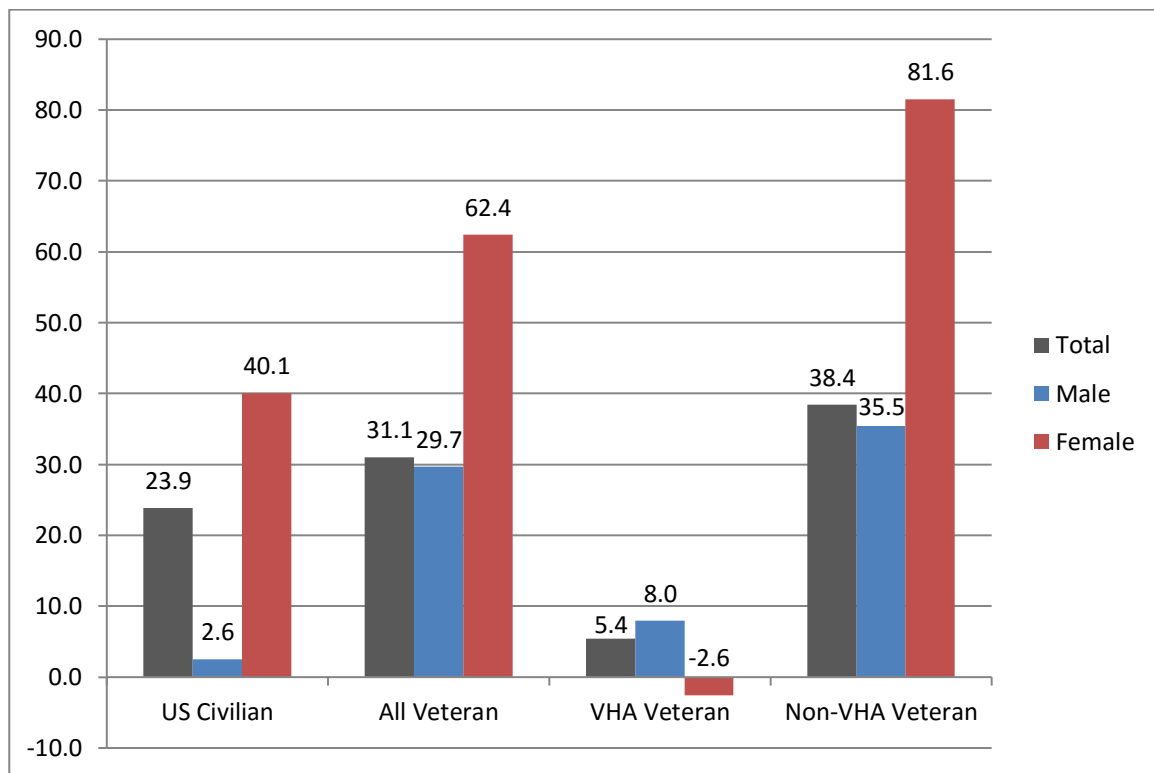
6. Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999–2014 on CDC WONDER Online Database, released 2015. Data are from the Multiple Cause of Death Files, 1999–2014, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program.

7. Klein RJ, Schoenbaum CA. Age adjustment using the 2000 projected U.S. population. Healthy People Statistical Notes, no. 20. Hyattsville, Maryland. National Center for Health Statistics. January 2001.

## A. Magnitude of Veteran Suicide Mortality

In 2001, Veterans accounted for 12.1 percent of the U.S. adult population and 23 percent of all suicides among U.S. adults. Between 2001 and 2014, there were decreases in both the proportion of U.S. adults who were Veterans (8.5 percent in 2014) and the proportion of adult suicide decedents who were Veterans (17.8 percent in 2014). However, changes in the proportion of U.S. adults who were Veterans or the proportion of adults who died by suicide and were Veterans leave gaps in our understanding of changes in rates of suicide among Veterans over time. Therefore, steps were taken to test for changes in rates of suicide among Veterans and control for shifts in the demographic composition of populations over time. Age-adjusted suicide rates were calculated for each year during the study period using the 2000 U.S. standard population weights. As shown in Figure 10, age-adjusted suicide rates were greater for Veterans than civilians between 2001 and 2014, with substantial increases observed for female Veterans between years. Further differences within Veteran subpopulations were observed when changes in the age-adjusted rates of suicide were calculated separately for Veterans who did and did not use VHA services. Overall, non-VHA Veterans had greater increases in rates of suicide when compared to changes in rates of suicide among VHA Veterans.

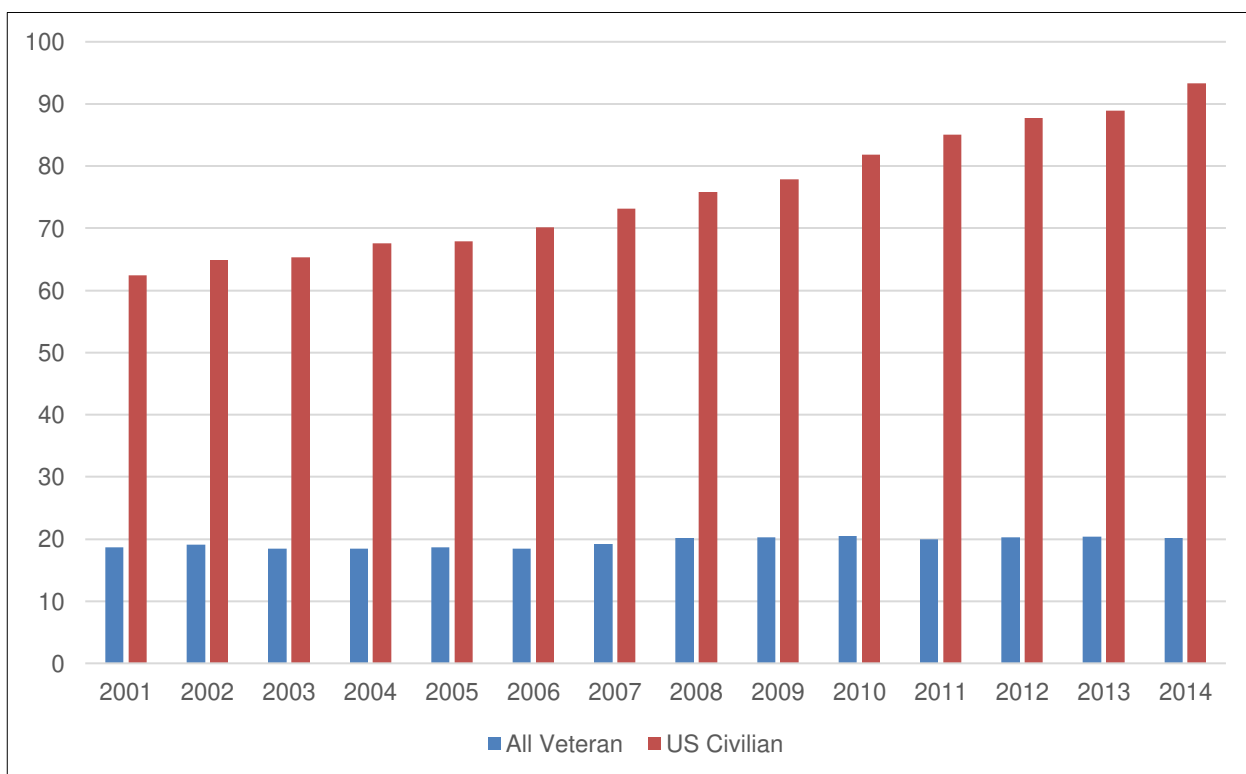
Figure 10. Percent Changes in Age-Adjusted Rates of Suicide Among Veterans and Civilians, 2001–2014



### Average Number of Veteran and Civilian Suicides per Day

We calculated the average number of suicides among Veterans and civilians per day by taking the total number of suicides in each group for each year and dividing by 365, the number of days in a year. In 2001, an average of 19 Veterans died by suicide per day (Figure 11). This number increased slightly from 2001 to a high of 21 per day in 2010, with a subsequent decrease to 20 per day in 2011, and has remained stable since that time. In contrast, the average number of civilian adults who died by suicide each day has increased steadily from 62 per day in 2001 to 93 per day in 2014. Among Veterans who used VHA services, the average number who died by suicide per day increased from 4 in 2001 to 6 in 2014 (Figure 12). It should be noted that decreases in the size of the Veteran population and contrasting increases in the size of the U.S. population limit the comparability of these statistics. Rates of suicide stratified by group are more appropriate for understanding changes in risk among Veterans and civilians and are provided throughout this report.

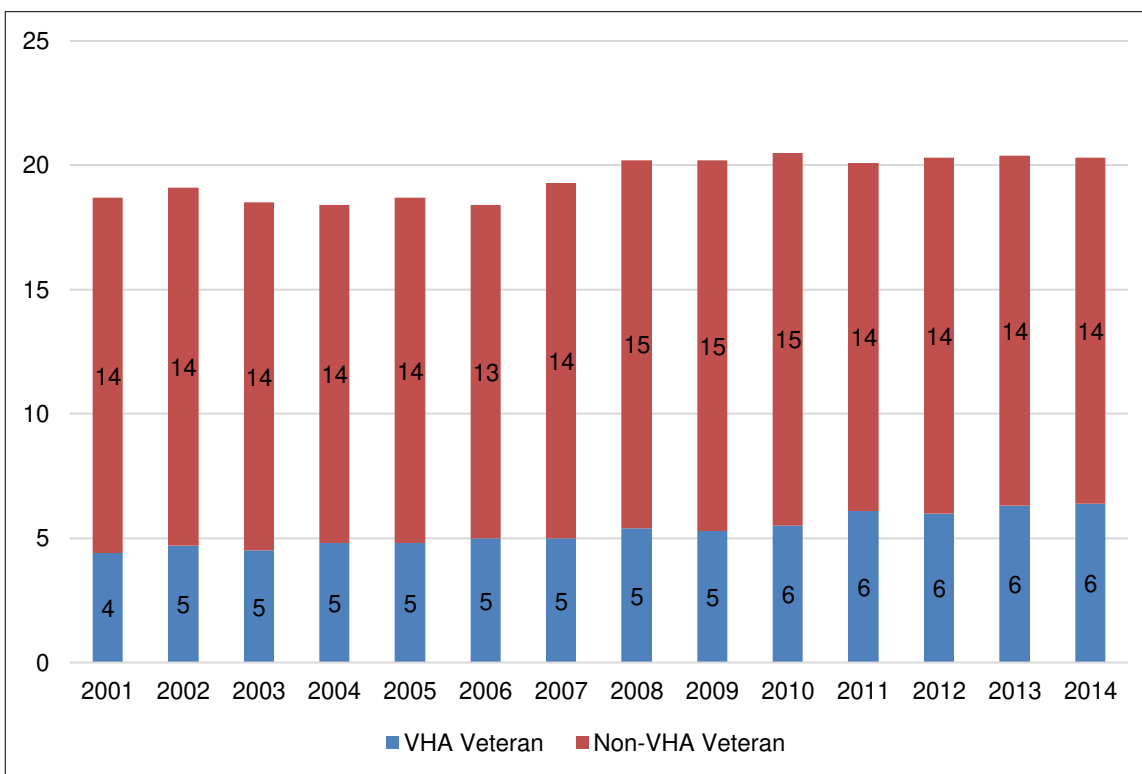
Figure 11. Average Number of Suicides per Day Among Veterans and Civilians by Year, 2001–2014



**Main Finding: On average, the number of civilians who died by suicide per day has increased each year since 2001.**



Figure 12. Average Number of Suicides per Day Among Veterans With and Without Use of VHA Services, 2001–2014

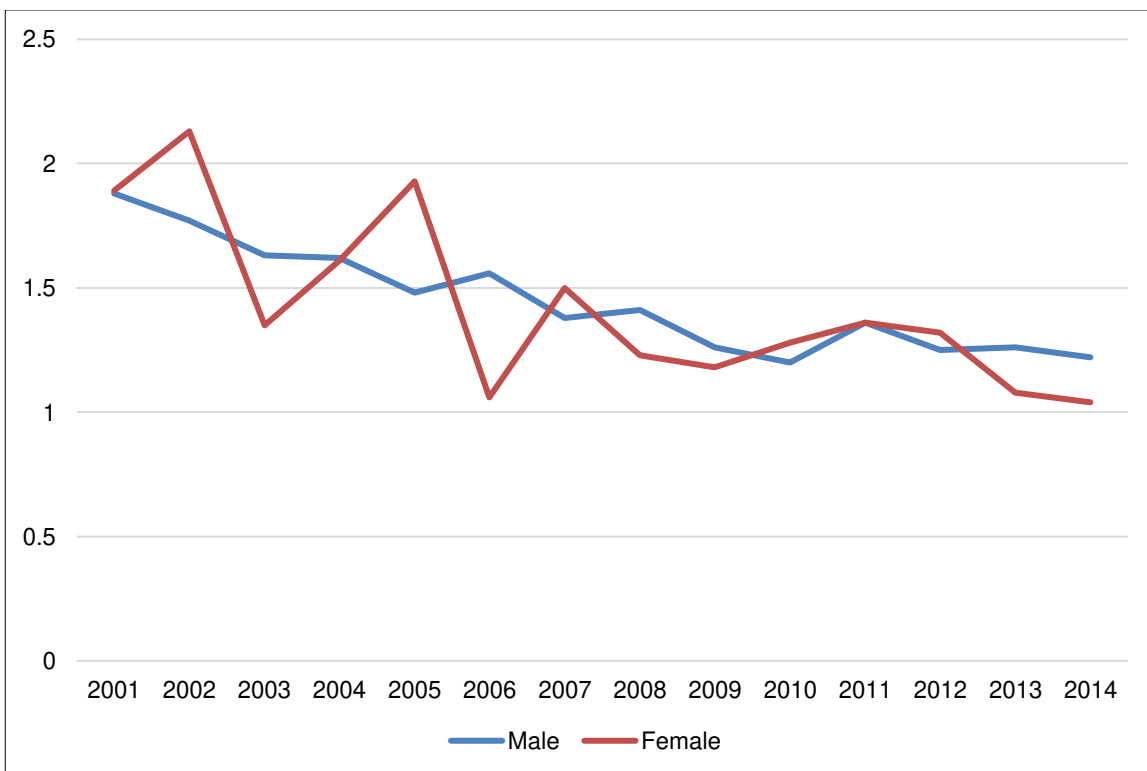


**Main Finding: On average, the number of Veterans who died by suicide per day has remained stable since 2011.**

## B. Comparison of Suicide Rates Among Veterans Who Do and Do Not Use VHA Services, 2001–2014

In 2014, male Veterans who used VHA services were 22 percent more likely to die by suicide than male Veterans who did not use VHA. Excess suicide risk among female Veterans who used VHA services decreased from 89 percent to 4 percent between 2001 and 2014. Since 2013, there has been no statistically significant difference in risk for suicide among female Veterans who do and do not use VHA services.

Figure 13. Standardized Mortality Ratios (SMRs) Comparing Risk for Suicide Among Veterans With and Without Use of VHA Services by Calendar Year and Sex, 2001–2014

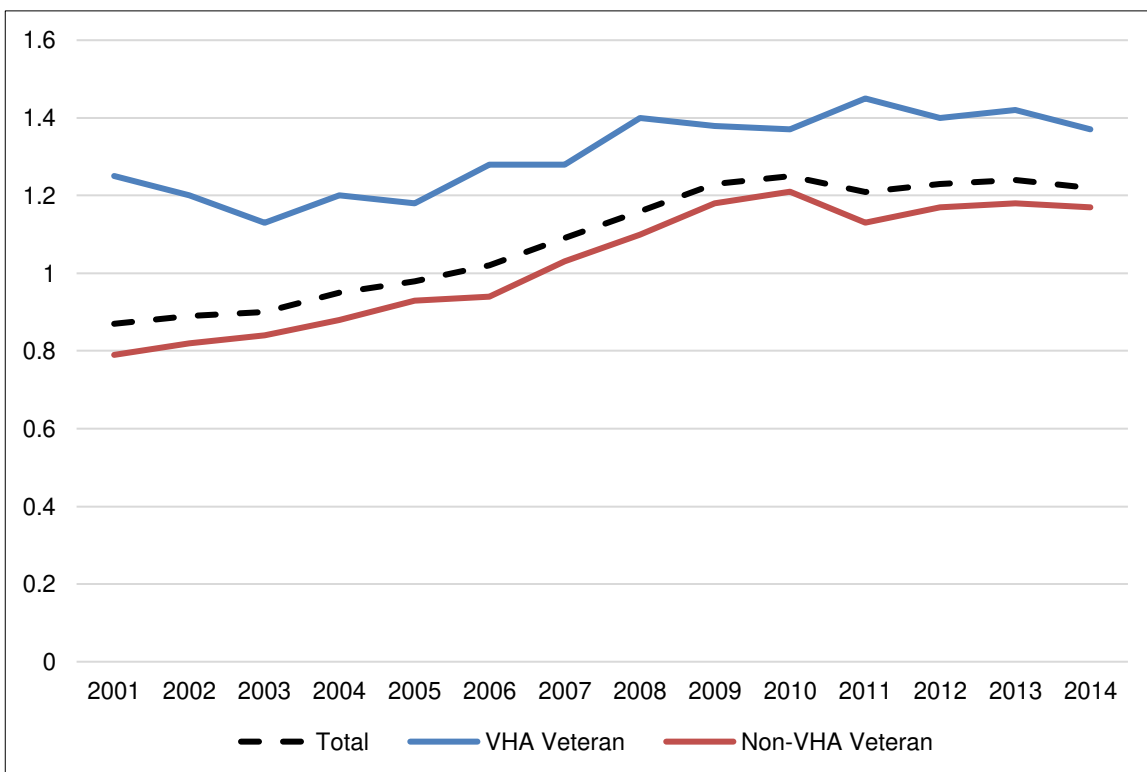


**Main Finding: The difference in suicide risk between Veterans who did and did not use VHA services has diminished since 2001.**

### C. Comparison of Veteran and Adult Civilian Suicide Risk, 2001–2014

Prior to 2006, Veteran suicide rates were lower than adult civilian suicide rates after accounting for age and sex differences between the populations. Risk for suicide among Veterans relative to civilians has increased relatively steadily since 2001. In 2014, Veterans were 22 percent more likely to die by suicide compared to their adult civilian peers, adjusting for age and sex. Differences in estimates of relative risk were observed for Veterans who did and did not use VHA services: Veterans who used VHA care had higher suicide rates than adult civilians across the observed time period (Figure 14). A greater increase in the relative risk for suicide among Veterans compared to civilians was observed for those who did not use VHA services over this time period.

Figure 14. Standardized Mortality Ratios for Veterans With and Without Use of VHA Services Compared to Civilians, 2001–2014

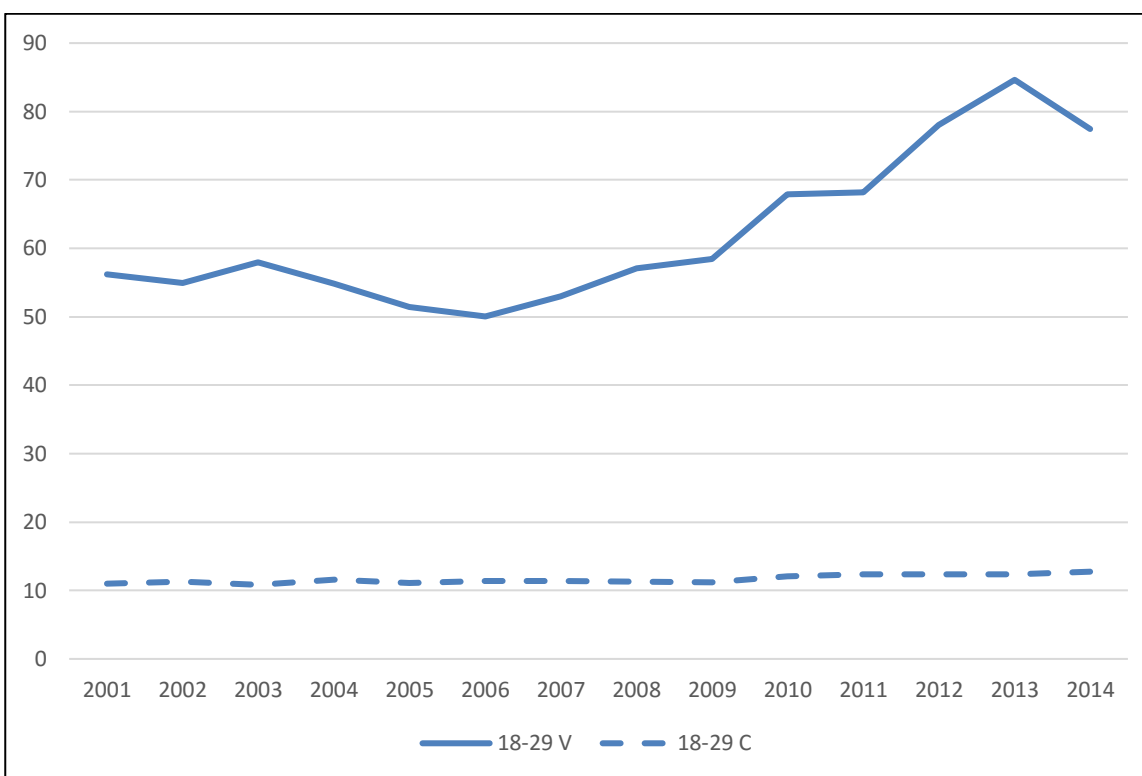


**Main Finding:** Compared with suicide mortality among the civilian population, a greater increase in the relative risk for suicide among Veterans was observed among those who did not use VHA services.

### Comparison of Veteran and Civilian Suicide Risk Among Various Age Groups

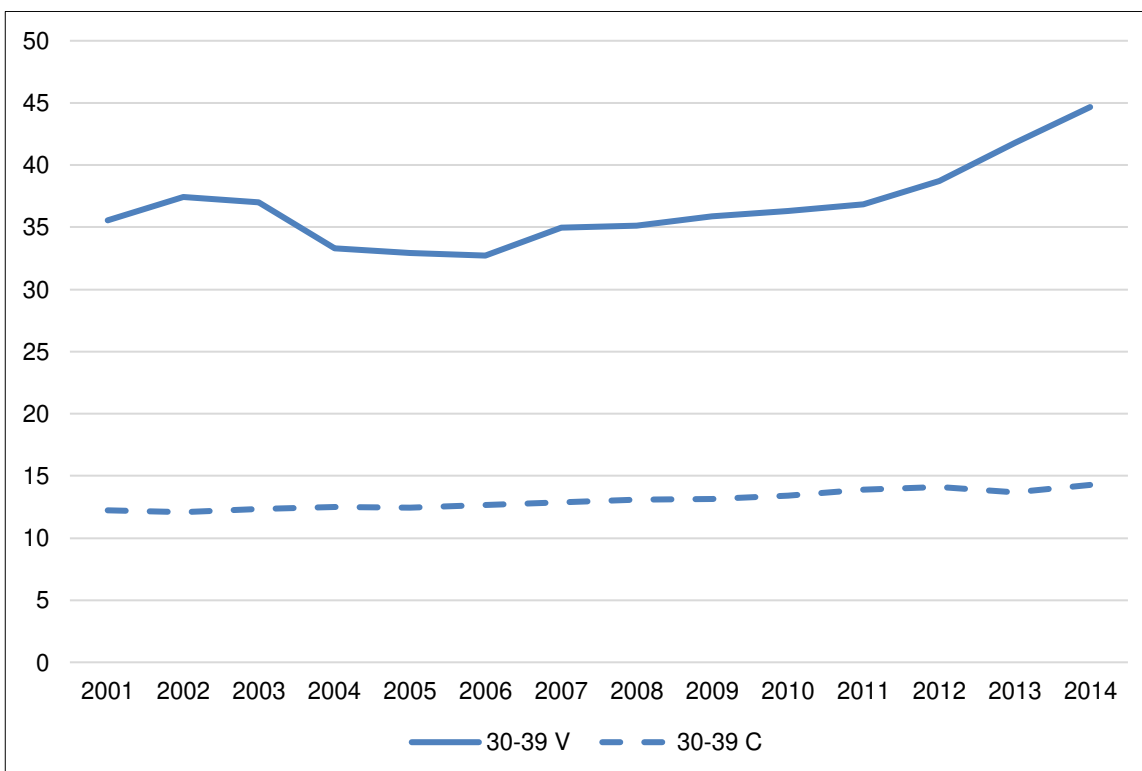
Figures 15 through 21 provide age-specific suicide rates for all Veterans and civilians, by year. Figures 22 through 24 present this information for men, and Figures 25 through 27 present this information for women. Overall, rates of suicide have increased more among Veterans than among their civilian peers. However, there are important differences across age groups and between male and female Veterans. For example, rates of suicide have remained relatively stable for Veterans ages 40–49, and little difference was observed in rates of suicide among older female Veterans compared to civilian women in the same age group. However, the comparatively small number of suicides among older female Veterans limits consideration of observed differences.

Figure 15. Crude Rates of Suicide by Calendar Year Among Veterans (V) and Civilians (C) Ages 18–29, 2001–2014



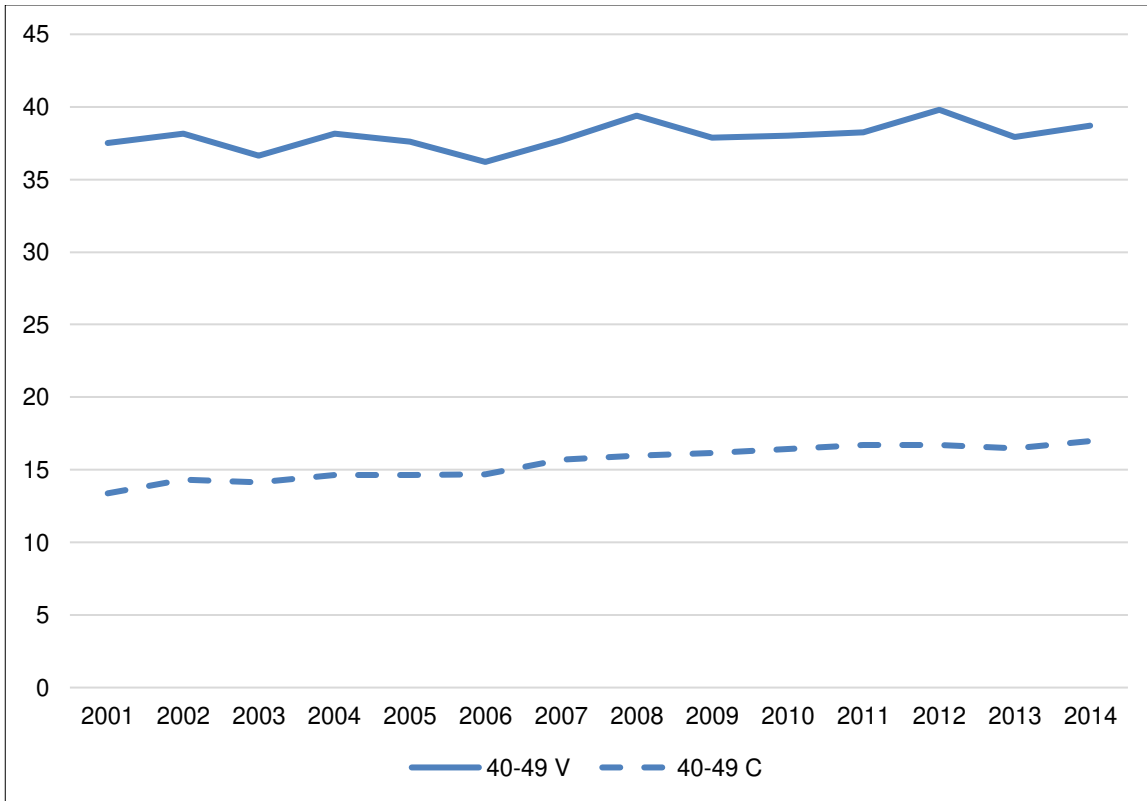
**Main Finding: Rates of suicide have increased substantially among younger Veterans while remaining relatively stable among civilians ages 18–29.**

Figure 16. Crude Rates of Suicide by Calendar Year Among Veterans (V) and Civilians (C) Ages 30–39, 2001–2014



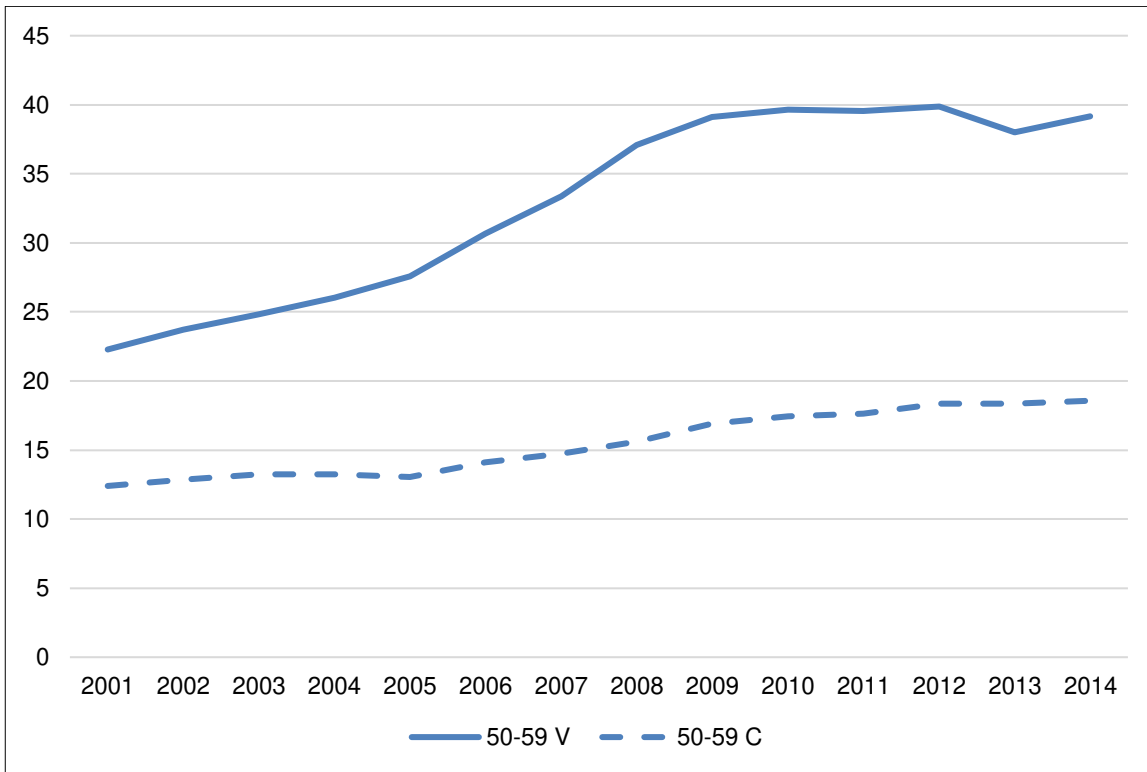
**Main Finding: Rates of suicide have increased among Veterans ages 30–39 while remaining relatively stable among civilians in this age group.**

Figure 17. Crude Rates of Suicide by Calendar Year Among Veterans (V) and Civilians (C) Ages 40–49, 2001–2014



**Main Finding:** Despite an increase in suicide rates among the civilian population ages 40–49, rates of suicide have remained stable among Veterans in the same age group.

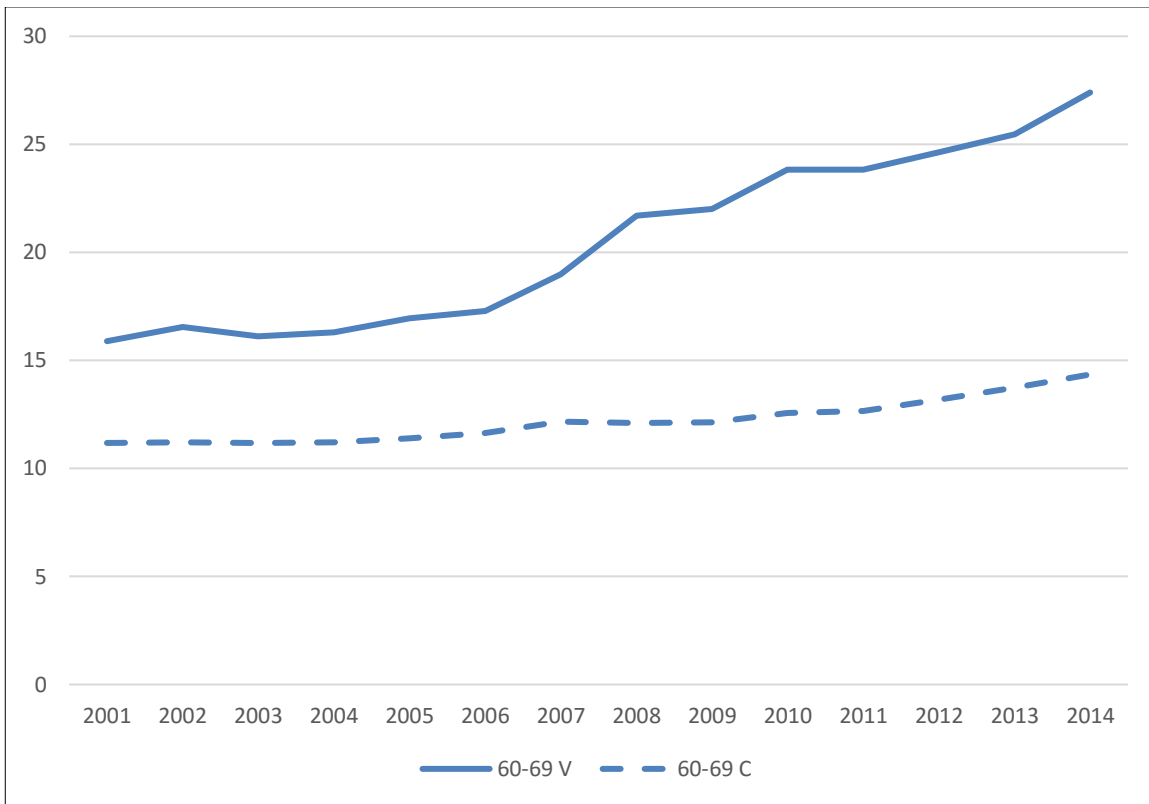
Figure 18. Crude Rates of Suicide by Calendar Year Among Veterans (V) and Civilians (C) Ages 50–59, 2001–2014



**Main Finding: Rates of suicide increased substantially among Veterans ages 50–59. Increases in civilian suicide rates are also evident in this age group.**

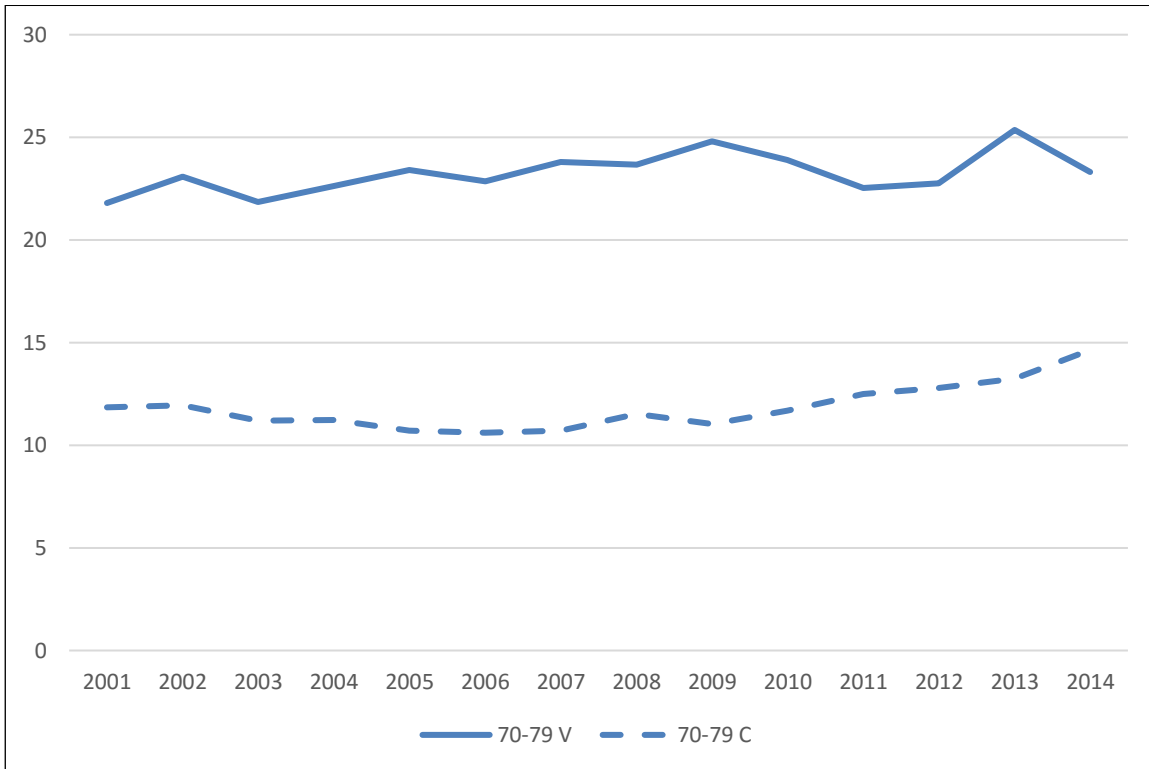


Figure 19. Crude Rates of Suicide by Calendar Year Among Veterans (V) and Civilians (C) Ages 60–69, 2001–2014



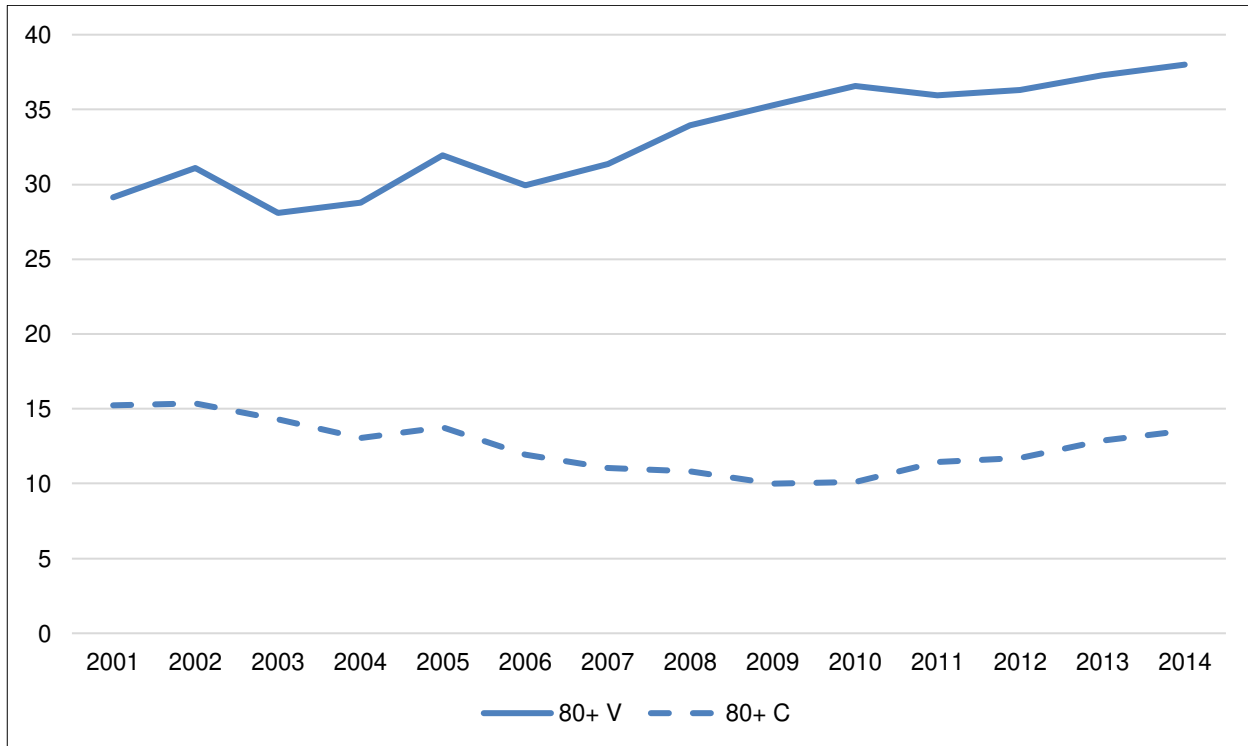
**Main Finding: Rates of suicide increased substantially among Veterans ages 60–69. Increases in civilian suicide rates are also evident in this age group.**

Figure 20. Crude Rates of Suicide by Calendar Year Among Veterans (V) and Civilians (C) Age 70–79 Years, 2001–2014



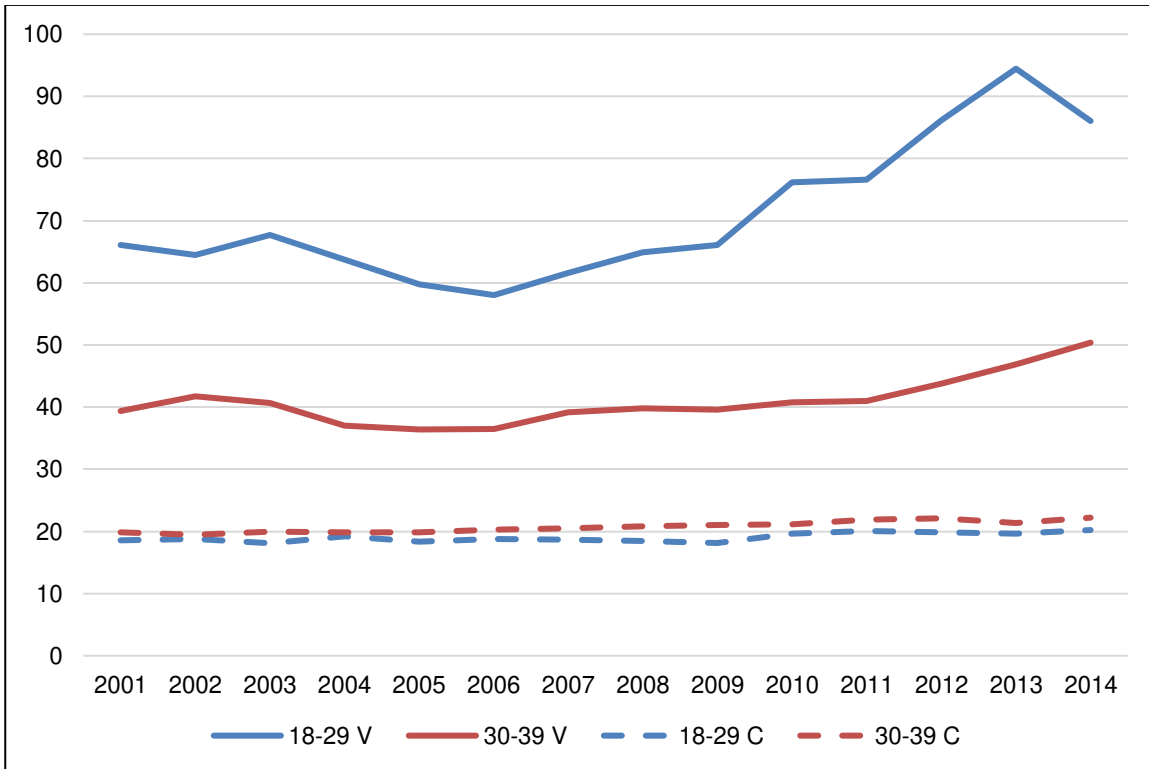
**Main Finding: Despite increases in suicide rates among the civilian population ages 70–79, rates of suicide remained stable among Veterans in the same age group.**

Figure 21. Crude Rates of Suicide by Calendar Year Among Veterans (V) and Civilians (C) Ages 80 and Older, 2001–2014



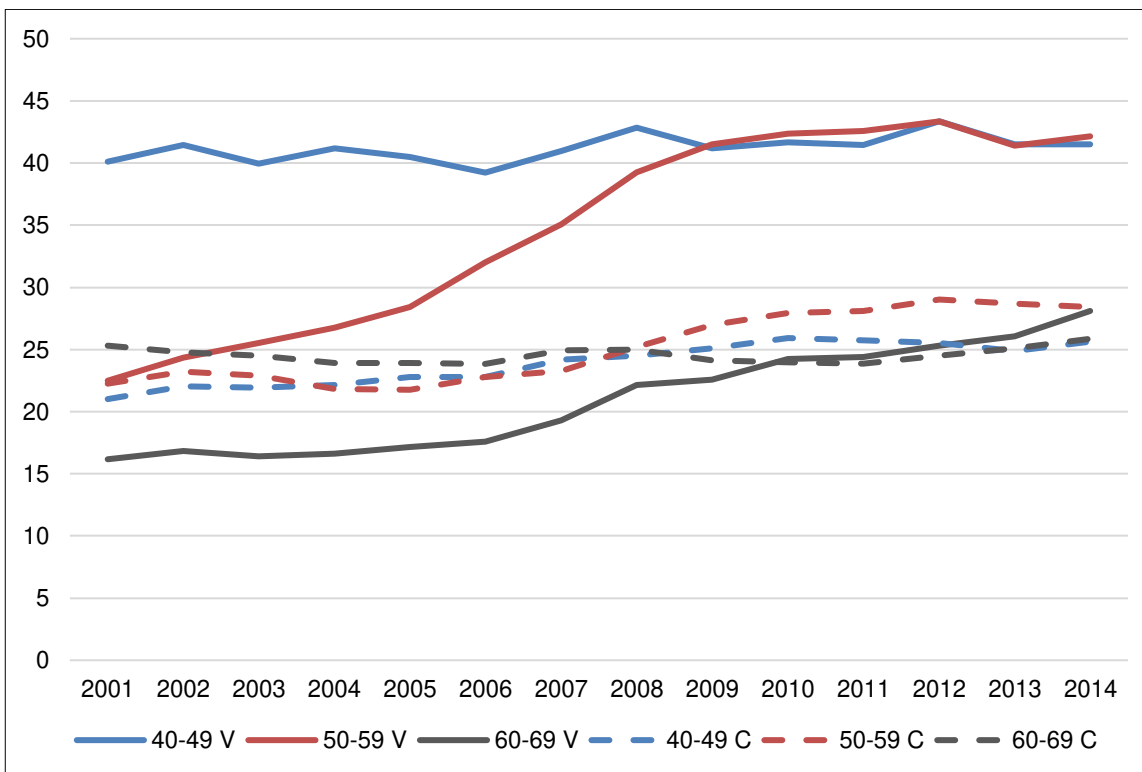
**Main Finding: Rates of suicide increased among Veterans ages 80 and older while remaining stable among civilians in this age group.**

Figure 22. Crude Rates of Suicide by Calendar Year Among Male Veterans (V) and Civilians (C) Ages 18–39, 2001–2014



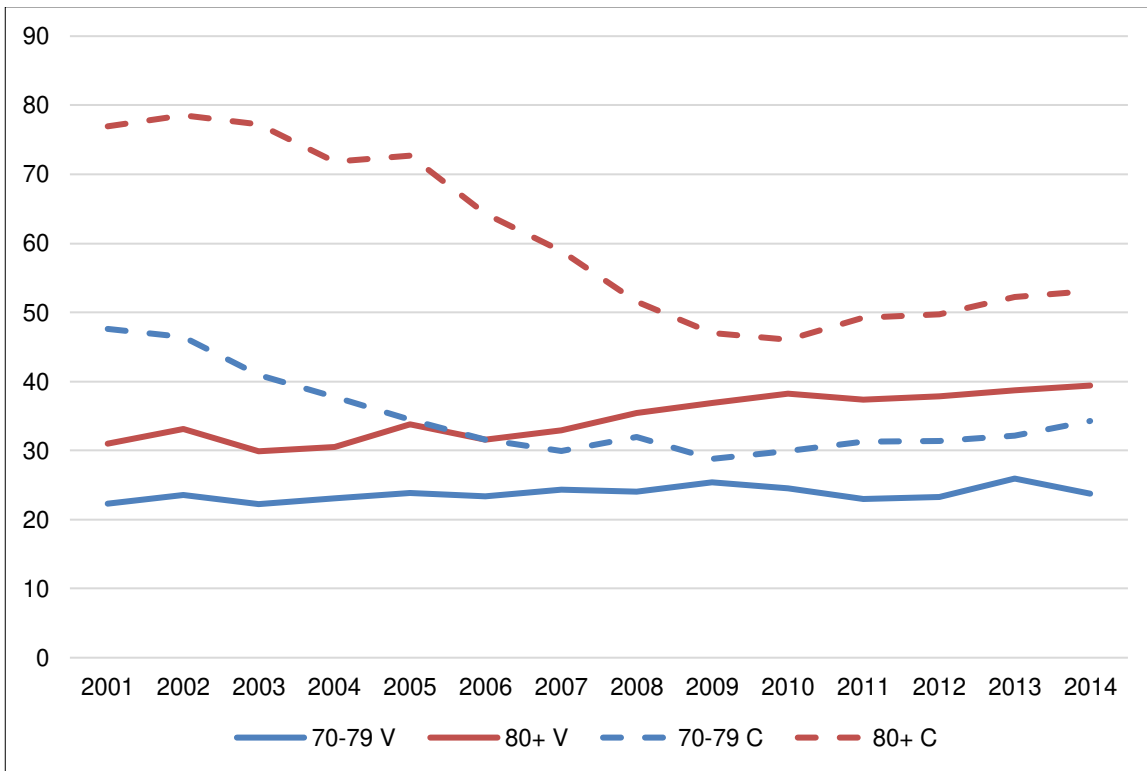
**Main Finding:** Compared with male civilians, younger male Veterans had higher suicide rates with greater increases over time.

Figure 23. Crude Rates of Suicide by Calendar Year Among Male Veterans (V) and Civilians (C)  
Ages 40–69, 2001–2014



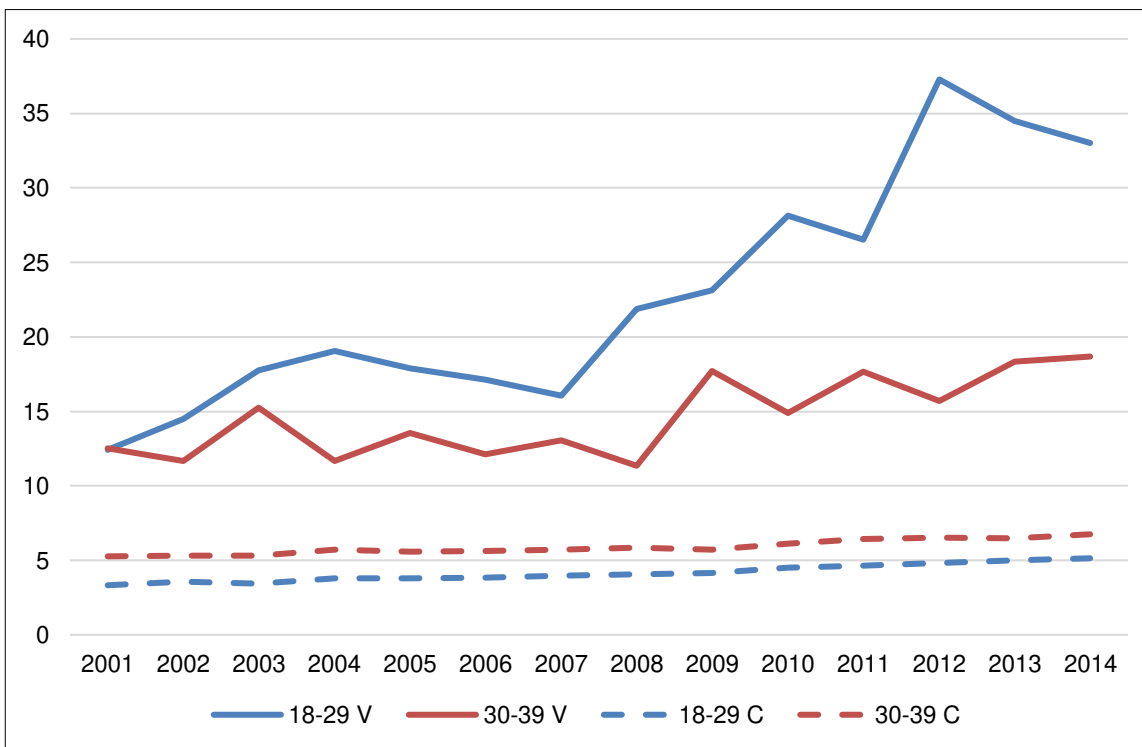
**Main Finding:** Increases in rates of suicide among male Veterans ages 50–69 were larger than those observed among male civilians in the same age groups.

Figure 24. Crude Rates of Suicide by Calendar Year Among Male Veterans (V) and Civilians (C) Ages 70 and Older, 2001–2014



**Main Finding: Rates of suicide among older adult male Veterans were lower than rates of suicide among older adult male civilians across the time period.**

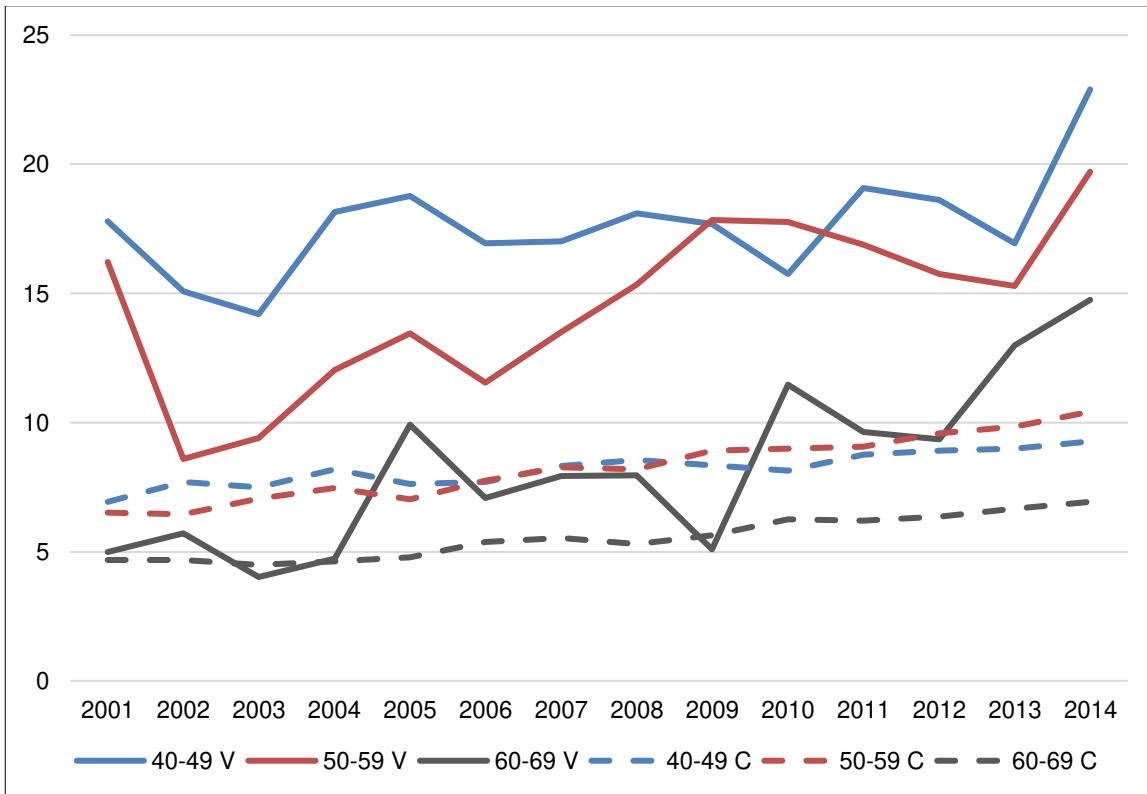
Figure 25. Crude Rates of Suicide by Calendar Year Among Female Veterans (V) and Civilians (C) Ages 18–39, 2001–2014



**Main Finding: Greater increases in rates of suicide were observed among younger female Veterans than among younger female civilians.**

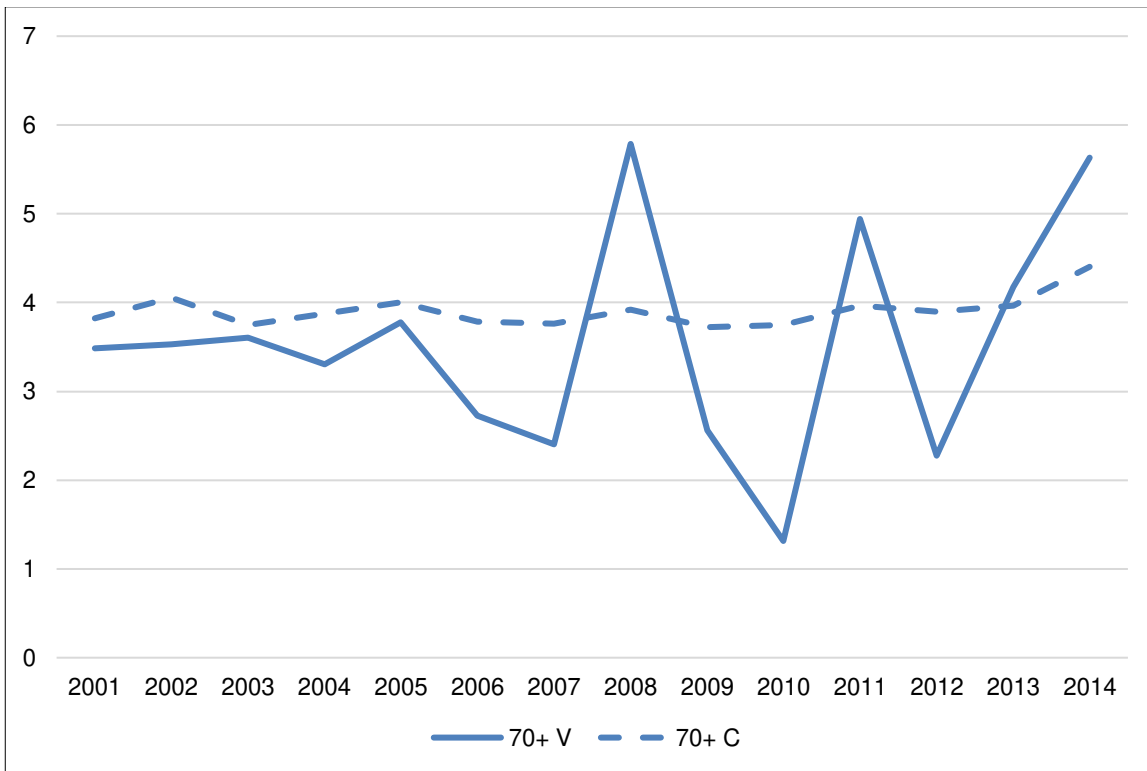


Figure 26. Crude Rates of Suicide by Calendar Year Among Female Veterans (V) and Civilians (C) Ages 40–69, 2001–2014



**Main Finding: Rates of suicide were higher among female Veterans ages 40–69 compared with suicide rates among female civilians in the same age groups.**

Figure 27. Crude Rates of Suicide by Calendar Year Among Female Veterans (V) and Civilians (C) Ages 70 and Older, 2001–2014

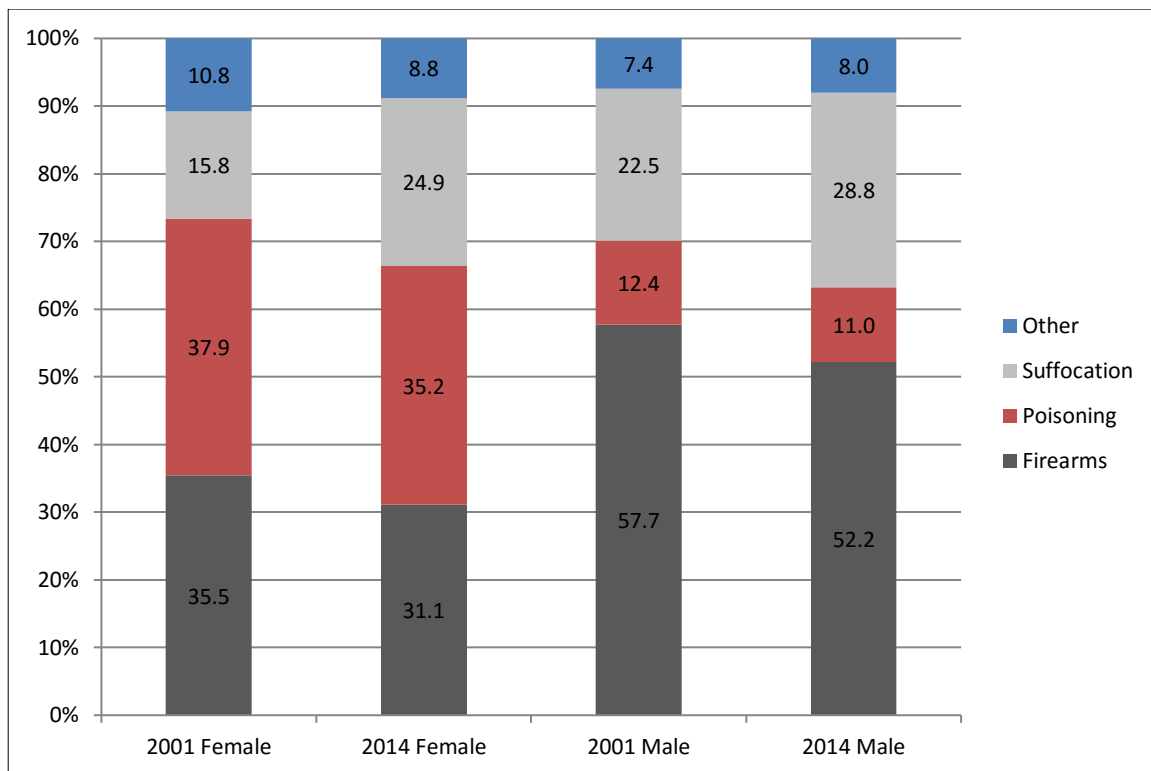


**Main Finding:** Despite instability associated with a relatively small number of older female Veterans, rates of suicide among older female Veterans were similar to rates of suicide among older adult female civilians.

#### D. Method of Veteran and Civilian Suicide, 2001–2014

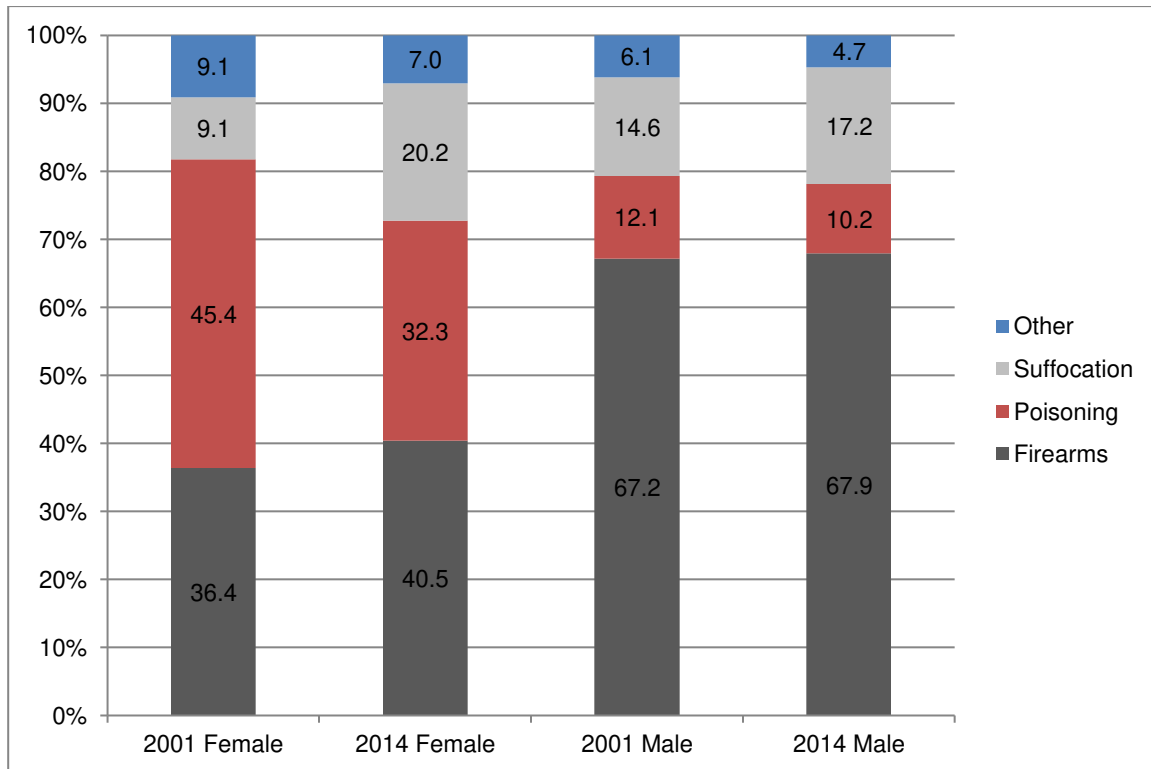
Use of firearms is associated with the highest rate of suicide mortality in the United States compared with mortality rates for other prevalent suicide methods. Figures 28 and 29 demonstrate that the proportion of suicide decedents using firearms is higher among both male and female Veterans than among the adult civilian population. In addition, while the proportion of civilian decedents who used firearms has decreased, it has remained relatively stable or increased slightly for both male and female Veterans.

Figure 28. Civilian Suicide Deaths by Method and Sex, 2001–2014



**Main Finding:** From 2001 to 2014, the percentage of suicides resulting from a firearm injury decreased among both male and female U.S. adult civilians.

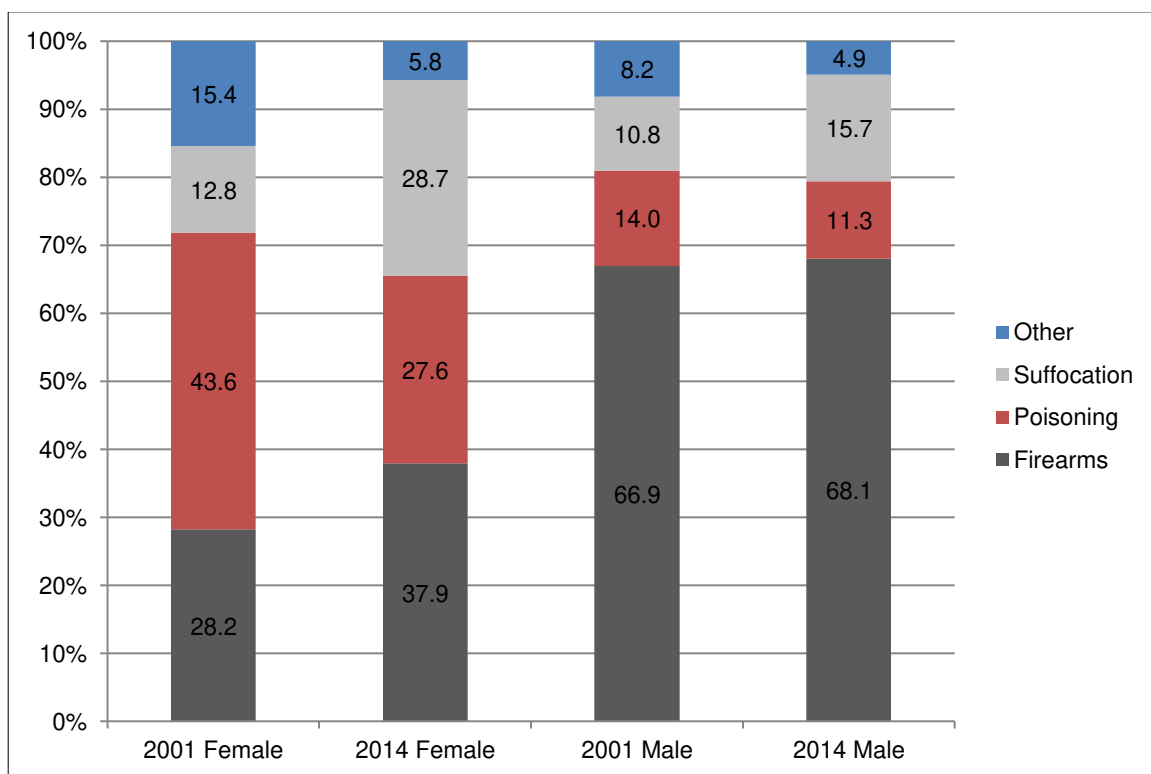
Figure 29. All Veteran Suicide Deaths by Method and Sex in 2001 and 2014



**Main Finding: The percentage of all suicides resulting from a firearm injury remained high among Veterans from 2001 to 2014.**

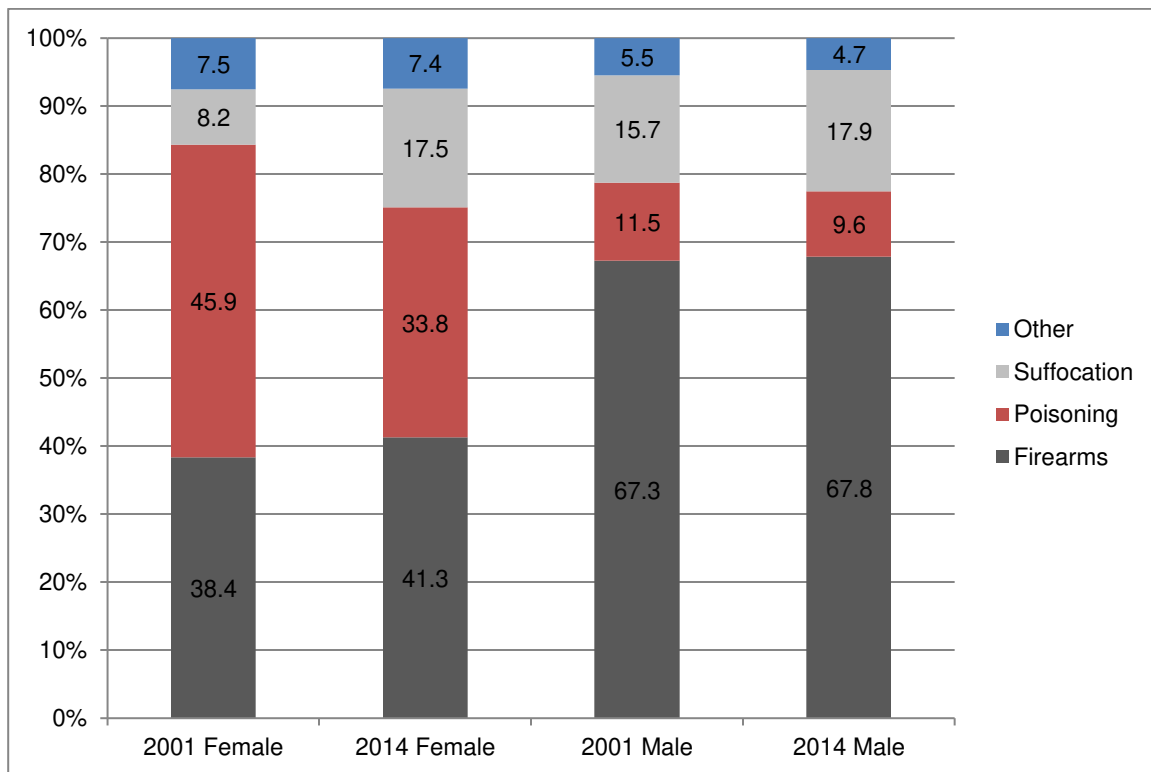
Figures 30 and 31 show the proportion of all deaths by method among all Veterans and among Veterans who did and did not use VHA services in 2001 and 2014. In contrast to trends in the U.S. civilian population, the proportion of suicides resulting from a firearm injury has increased among female Veterans and has remained relatively constant among male Veterans. Among female Veterans, the proportion of suicides resulting from poisoning decreased, and the proportion of suicides resulting from suffocation and firearms increased. The observed increase in suicides resulting from suffocation was greater among female Veterans who used VHA services than among female Veterans who did not use VHA services (Figures 30 and 31).

Figure 30. VHA Veteran Suicide Deaths by Method and Sex, 2001–2014



**Main Finding: The percentage of all suicides resulting from suffocation and firearms increased among female Veterans who used VHA services.**

Figure 31. Non-VHA Veteran Suicide Deaths by Method and Sex in 2001 and 2014



**Main Finding: The percentage of suicides resulting from a firearm injury was similar among Veterans with and without the use of VHA services.**

## E. Understanding the Burden of Veteran Suicide: Magnitude vs. Risk

When directing suicide prevention efforts, it's important to consider the distribution of suicides as well as differences in rates among key population subgroups. Figures 32 through 35 show important differences in the distribution of the number and rate of suicide across age groups and sexes compared to the characteristics of suicide among civilians. As shown in Figures 32 and 33, rates of suicide are highest among younger male Veterans and lowest among male Veterans ages 60–79. However, the greatest number of suicides among male Veterans was observed for those ages 50–69. In contrast, the greatest number of suicides among male civilians was observed for those ages 59 and younger. Similarly, while fewer differences in the distribution of counts of suicide between civilians and Veterans are observed for women, the greatest rates of suicide among female Veterans were among those ages 18–29.

Figure 32. Comparison of Suicide Counts and Rates by Age Group for Male Civilians, 2014

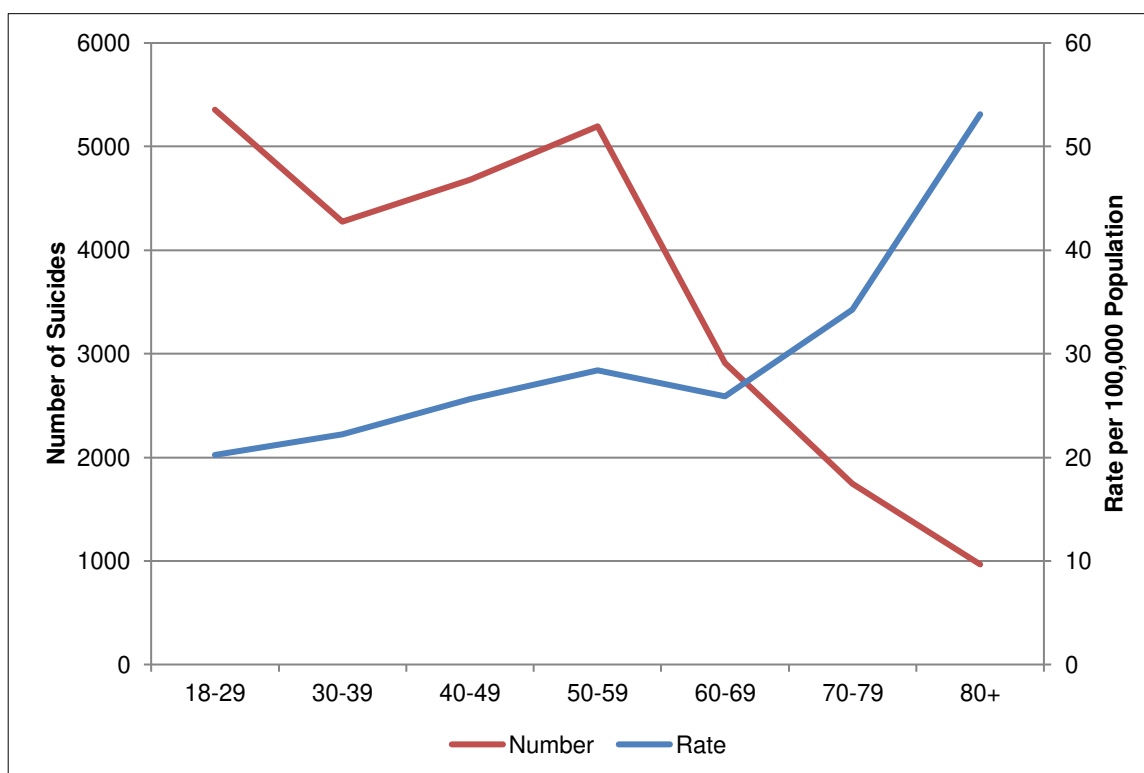
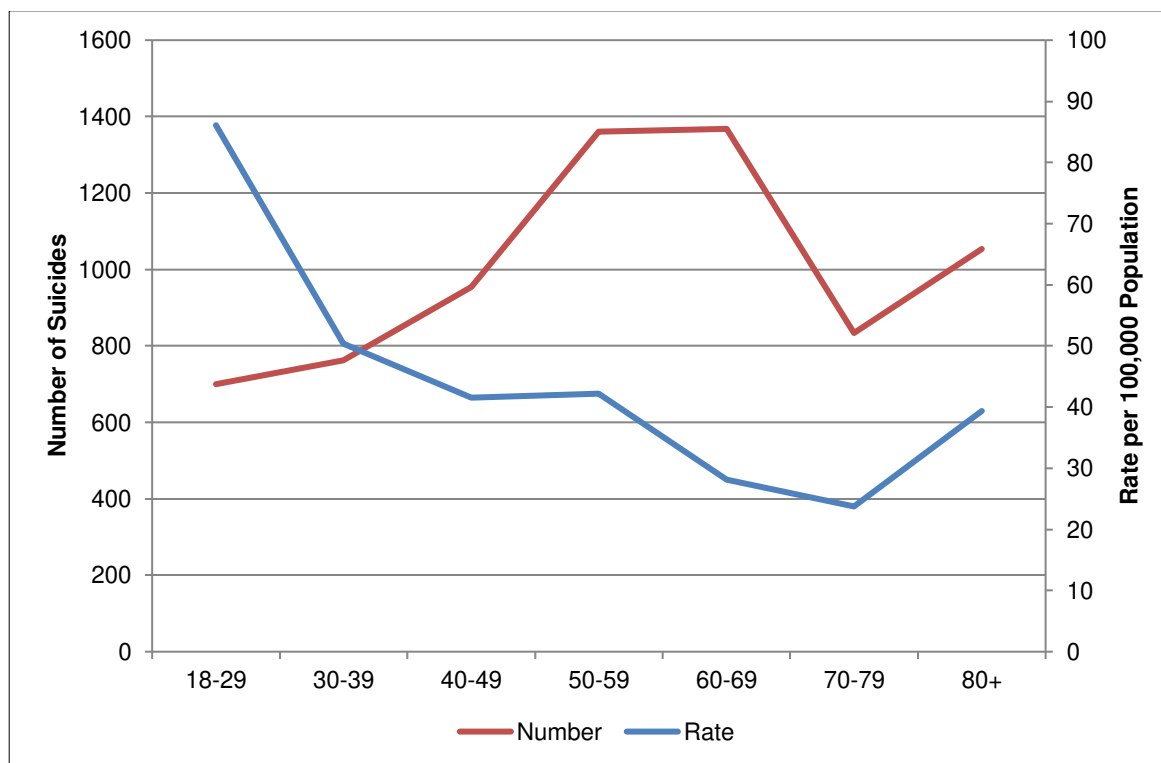


Figure 33. Comparison of Suicide Counts and Rates by Age Group for Male Veterans, 2014



**Main Finding:** Among male civilians, the largest number of lives lost to suicide was among younger and middle-aged adults (ages 18–59), with the highest rates of suicide among older adults. Among male Veterans, the largest number of lives lost to suicide was among middle-aged men (ages 50–69), with the highest rates of suicide among the youngest men (ages 18–29).



Figure 34. Comparison of Suicide Counts and Rates by Age Group for Female Civilians, 2014

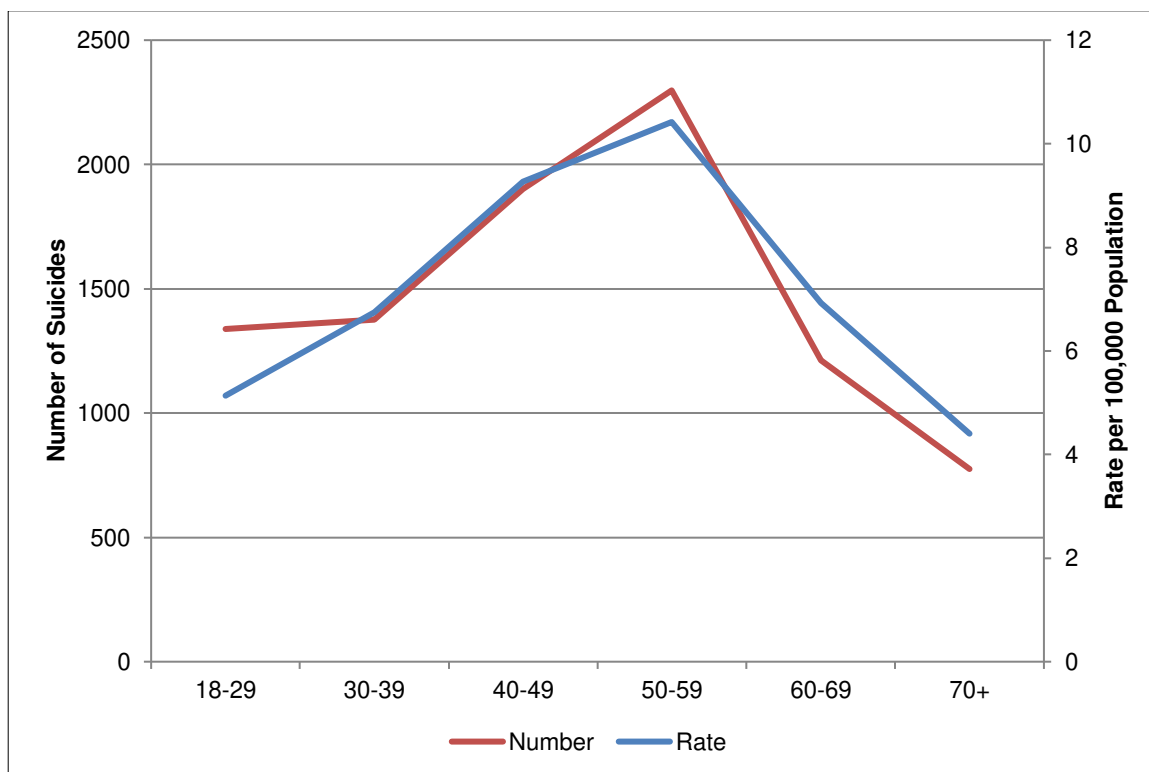
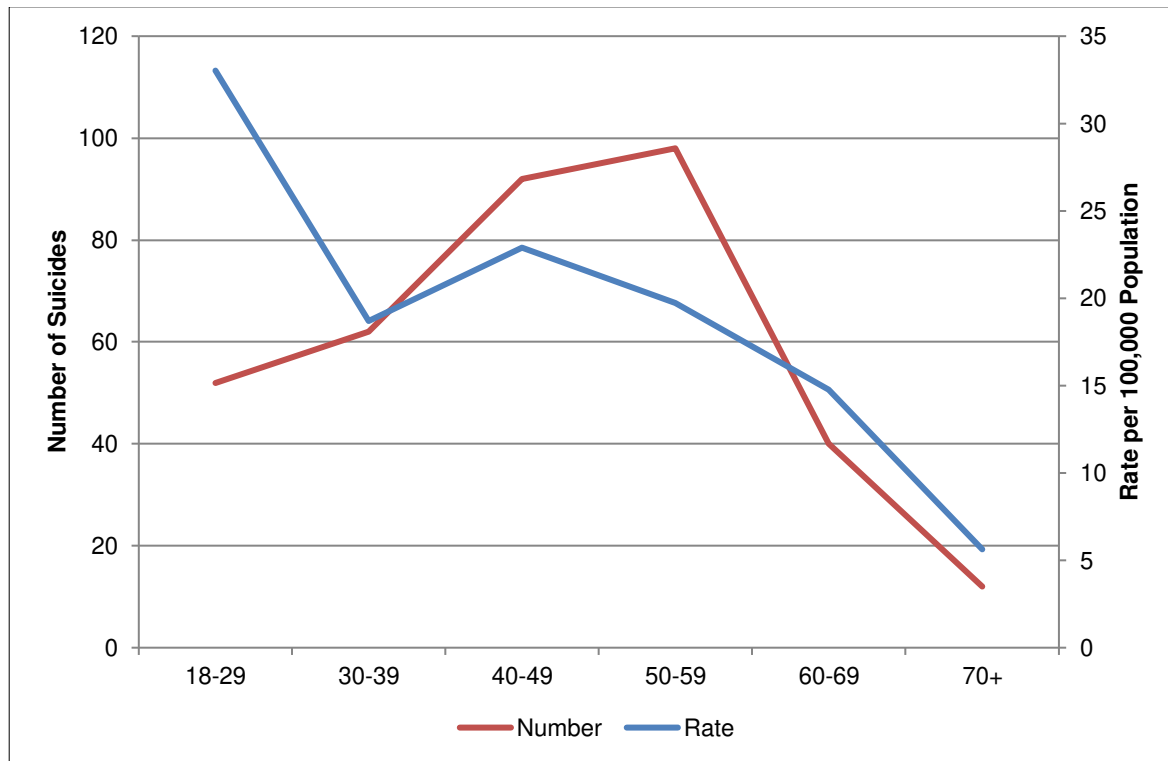


Figure 35. Comparison of Suicide Counts and Rates by Age Group for Female Veterans, 2014



**Main Finding:** Among female civilians, age-specific suicide rates correspond closely with the number of lives lost to suicide, with both peaking among women ages 40–59. Among female Veterans, the largest number of lives lost to suicide occurs in middle age (ages 40–59), but the highest rate occurs among female Veterans ages 18–29.

## VII. Summary and Discussion of Findings

This comprehensive analysis of Veteran suicide from 2001 to 2014 confirms that when compared to their non-Veteran peers, most Veterans are at an increased risk for suicide. However, important differences in rates of suicide among Veteran and civilian groups were observed when rates were stratified by sex and age group. While the average number of Veterans who died by suicide per day has remained relatively stable in recent years, the relative risk for suicide among Veterans compared to civilian adults has increased, as have age-specific suicide rates for Veterans ages 18–39, 50–69, and 80 and older. Increases in suicide rates are particularly evident among female Veterans and Veterans who do not use VHA services.

Despite evidence of increases in suicide rates among most civilian and Veteran groups, rates of suicide have remained stable among some Veteran subpopulations, such as men ages 40–49, and differences have diminished between Veterans who do and do not use VHA services.

The most common means for suicide among Veterans is firearms, with approximately 41 percent of female and 68 percent of male Veteran suicide deaths resulting from a firearm injury in 2014. Poison is the second-most common means of suicide for female Veterans: 32 percent of female Veterans who die by suicide use poison. Among male suicide decedents, suffocation is the second-most common cause of death (17 percent in 2014). The use of firearms as the method for suicide death decreased among civilians from 2001 to 2014, but it remained stable among Veterans. These results strongly suggest that firearms safety initiatives are likely an important component of an effective suicide prevention strategy for male and female Veterans.

Among male Veterans, suicide rates are highest in the younger and older years, and among female Veterans, suicide rates are highest in the younger years. However, because the age distribution of the living Veteran population is heavily weighted toward middle-aged adults, the resulting burden of suicide, in terms of the number of lives lost, is most evident among middle-aged Veterans, despite the lower rates of suicide observed for this subpopulation. Analysis of suicide risk among the Veteran population indicates that it is important to develop and direct Veteran suicide prevention initiatives that are tailored to reach Veterans of all ages.

Findings included in this report highlight the complex relationship between a history of U.S. military service and suicide risk and the need for additional assessments to understand factors such as changes in risk exposures, workforce composition and socio-economic factors, and rates of suicide across Veteran and civilian groups.

## VIII. Ongoing Suicide Data Analysis

The findings presented in this report represent the first analysis of more than 50 million records. This epidemiologic overview of suicide risk among the Veteran population and how it compares to suicide risk among U.S. adult civilians sets the stage for continued analysis. Additional analysis of this data is ongoing and will include the following inquiries, at a minimum:

- Comparison of suicide risk and burden among OEF/OIF/OND Veterans who do and do not use VHA services
- Comparison of suicide rates among residents of urban and rural areas
- Suicide rates across branches of military service (i.e., Army, Navy, Air Force, Marines)
- Suicide rates by race/ethnicity
- Suicide risk during periods of transition

### ***References:***

\* Source: VA Benefits & Health Care Utilization Pocket Card, Updated 5/13/16; Veteran Population as of 09/30/15 (<http://www.va.gov/vetdata/docs/pocketcards/fy2016q3.pdf>)

\*\*Source: VA Benefits & Health Care Utilization Pocket Card, Updated 5/13/16; Produced by the National Center for Veterans Analysis and Statistics. (<http://www.va.gov/vetdata/docs/pocketcards/fy2016q3.pdf>). (pg 1)

Curtin SC, Warner M, Geedegaard H. Increase in suicide in the United States, 1999–2014. NCHS data brief, no, 241. Hyattsville, MD: National Center for Health Statistics. 2016. Details on priority group enrollment criteria can be found at: [http://www.va.gov/HEALTHBENEFITS/resources/priority\\_groups.asp](http://www.va.gov/HEALTHBENEFITS/resources/priority_groups.asp) (pg 6)

Harris, E.C. & Barraclough, B. (1997) Suicide as an outcome for mental health disorders. A meta-analysis. Br J Psychiatry, 170, 205-228 (pg 8)