



DEPARTMENT OF DEFENSE  
UNDER SECRETARY OF DEFENSE  
FOR PERSONNEL AND READINESS

# ANNUAL SUICIDE REPORT



CALENDAR  
YEAR 2018

The estimated cost of this report or study for the Department of Defense is approximately \$1,302,000 for the 2019 Fiscal Year. This includes \$1,127,000 in expenses and \$175,000 in DoD labor.

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**If you, or anyone you know, are experiencing thoughts of suicide, please reach out for help immediately.**



- The Veterans and Military Crisis Line is a toll-free, confidential resource, with support 24/7, that connects Veterans, Service members, National Guard and Reserve, and their family members with qualified, caring responders.
- The Veterans and Military Crisis Line, text-messaging service, and online chat provide free VA support for all Service members, including members of the National Guard and Reserve, and all Veterans, even if they are not registered with VA or enrolled in VA health care. All Service members, including members of the National Guard and Reserve, along with their loved ones can call 1-800-273-8255 and Press 1, chat online at <https://www.veteranscrisisline.net/get-help/chat>, or send a text message to 838255.
- The Veterans and Military Crisis Line is staffed by caring, qualified responders from VA. Many are Veterans themselves. They understand what Service members have been through and the challenges that members of the military and their loved ones face.
- Need crisis assistance while Overseas? The following overseas locations have direct crisis line numbers:
  - In Europe: Call 00800 1273 8255 or DSN 118
  - In Korea: Call 0808 555 118 or DSN 118
  - In Afghanistan: Call 00 1 800 273 8255 or DSN 111
  - Crisis chat support is available internationally at <https://www.veteranscrisisline.net/get-help/chat>

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## WHAT IS THE ASR?

Effective January 1, 2019, the Department of Defense (DoD) Annual Suicide Report (ASR) serves as the release authority for the official annual suicide counts and unadjusted rates for the DoD. This report also describes current and future Departmental initiatives underway to combat suicide among Service members and their families.

## HOW DOES THE ASR DIFFER FROM THE DEPARTMENT OF DEFENSE SUICIDE EVENT REPORT ANNUAL PUBLICATION?

The ASR provides a mechanism for more timely release of official annual DoD suicide rates to the public. This report focuses on recent surveillance trends which allow for the examination of whether recent DoD policy or programmatic initiatives are having the desired effect. The DoDSER Annual Report, first published in 2008, continues to provide critical interpretations of military suicide data. The DoDSER Annual Report is the Department's official source for detailed risk and contextual factors associated with suicide and suicide-related behavior in the DoD.

## Executive Summary

The Department of Defense (DoD) is committed to preventing suicide within the military. Over the past decade, the Department has made strides in establishing an infrastructure for preventing military suicide by aligning our strategy with the public health approach; establishing policy guidance and an enterprise-wide suicide prevention governance body; standardizing and advancing data surveillance, research, clinical interventions, and program evaluation; and partnering and engaging with other federal, non-profit, and private organizations. There is still much more work to be done. In October 2018, the Department established a requirement for a DoD Annual Suicide Report (ASR) to serve as the official source of annual suicide counts and unadjusted rates for the DoD and a means by which to increase transparency and accountability for DoD efforts towards the prevention of suicide. This requirement also mandates the reporting of data on suicide deaths among military family members. This first-ever ASR presents recent suicide data on Service members and their families, provides an overview of the Department's suicide prevention strategy and governance, and describes current and future initiatives underway to combat suicide in the DoD.

Key findings reported in this ASR include the following:

**In Calendar Year (CY) 2018, there were 541 Service members who died by suicide. CY 2018 rates increased in the Active Component over the last five years, while remaining steady in the Reserve and National Guard during this same timeframe. However, suicide rates were consistent with rates from the past two years across all Components (Active, Reserve, and National Guard).** From CY 2013 to 2018, the suicide rate for the Active Component increased from 18.5 to 24.8 suicides per 100,000 Service members. This increase was attributable to small increases in the number of suicide deaths across all Services. The suicide rates of the Reserve and National Guard remained steady across this same timeframe. The CY 2018 suicide rate for the Reserve, across Services and regardless of duty status, was 22.9 suicides per 100,000 Reservists. For the National Guard, the suicide rate, across Services and regardless of duty status, was 30.6 suicides per 100,000 members of the National Guard. For all

## WHAT WE FOUND

1. CY 2018 rates among members of the Active Component were statistically consistent with CY 2017 and CY 2016 rates. However, suicide rates increased between CY 2013 and 2018.
2. CY 2018 rates for the Reserve and National Guard were statistically consistent with CY 2017 and CY 2016 rates. Suicide rates remained steady between CY 2013 and 2018.
3. Suicide rates in civilian populations have increased over time; the military is showing similar trends.
4. Suicide rates for military families, the Active Component, and Reserve, are comparable to U.S. population rates after accounting for age and sex; National Guard rates are higher than U.S. population after similar adjustments.

## WAY FORWARD

Based on findings from the ASR, the Department will use a multi-faceted public health approach to target areas of greatest concern, specifically young and enlisted members, as well as National Guard members, and continue to support our military families.

Services and Components, CY 2018 suicide rates were consistent with CY 2017 and CY 2016 rates.

**After accounting for age and sex, military suicide rates were roughly equal to rates in the U.S. population.** The most recent suicide data available for the U.S. population is for CY 2017. In CY 2017, the suicide rate for the U.S. population, ages 17 to 59, was 18.2 deaths per 100,000 individuals. At face value, the suicide rate in the U.S. population appears to be lower than military rates for all Components. However, the composition of the military and U.S. population varies considerably by age and sex — two factors with strong associations with suicide risk. After controlling for differences in age and sex between these populations, CY 2018 suicide rates in the military were roughly equivalent to the U.S. population rates for all Components, except the National Guard (PHCoE, 2019; DoD Suicide Event Report data).<sup>1</sup>

**Service members who died by suicide were primarily enlisted, less than 30 years of age, male, and died by firearm, regardless of Component.** In CY 2018, the distribution of suicide deaths by demographic and military factors reflected the profile of the Total Force.<sup>2</sup> Decedents were primarily enlisted, male, and less than 30 years of age, regardless of Component; this demographic makes up 46% of the military population, but about 60% of military suicide decedents. Specifically, the greatest proportion of suicide decedents were junior enlisted (E1-E4: ranging from 46.8% to 60.5% of those who died by suicide across Components), less than 30 years old (ranging from 65.2% to 72.8% of those who died by suicide), and male (ranging from 90.1% to 93.5% of those who died by suicide), depending on Component (i.e., Active Component, Reserve, or National Guard). The majority of Service members died by firearm (ranging from 60.0% to 69.6% of those who died by suicide, across Components).

**The Department estimates there were 186 reported suicide deaths among military spouses and dependents in CY 2017, the most recent data available on military family members. Suicide rates for military spouses and dependents were generally comparable to U.S. population rates after**

<sup>1</sup> The National Guard experiences unique challenges compared to other DoD Components, including geographic dispersion, significant time between military activities, access to DoD/VA healthcare, and variance in programs and resources across the 54 U.S. states and territories.

<sup>2</sup> In the current report, Total Force is defined as DoD Active and Reserve Component military personnel. In addition, the Reserve Component is further limited to members of the Selected Reserve (SELRES).

**accounting for age and sex.** For military spouses, the suicide rate in CY 2017 was 11.5 per 100,000 population. When examined by sex, the suicide rates for male and female spouses, between the ages of 18 and 60, were 29.4 and 9.1 per 100,000 population, respectively. These rates were comparable to the suicide rates for similar age (18 to 60 years) males and females in the U.S. general population (28.4 and 8.4 per 100,000 population, respectively). The overall suicide rate among military dependents (< 23 years of age) was 3.8 per 100,000 dependents. For male dependents, the suicide rate in CY 2017 was 5.2 per 100,000. This rate was less than the suicide rate for males (< 23 years) in the U.S. population (9.3 per 100,000). The suicide rate for female dependents of Service members was not reported due to low counts.<sup>3</sup> The primary method of suicide death for both military spouses and dependents in CY 2017 was firearm.

### **Current and Future Departmental Efforts**

The Department is strongly committed to preventing suicides within our military community. The health, safety, and well-being of our military community is essential to the readiness of the Total Force. Any death by suicide is a tragedy. The DoD embraces a public health approach to suicide prevention that acknowledges a complex interplay of individual-, relationship-, and community-level risk factors. This approach focuses on reducing the suicide risk of all Service members and their family members by attempting to address the myriad of underlying risk and socio-demographic factors (e.g., reluctance towards help-seeking, relationship problems, access to lethal means), while also enhancing protective factors (e.g., strong social connections, problem-solving, and coping skills). The Department's suicide prevention efforts are guided by the Defense Strategy for Suicide Prevention (DSSP) - aligned to the National Strategy for Suicide Prevention - and led by an executive-level, enterprise-wide governance body.

Findings of the CY 2018 ASR indicate an increase in suicide rates among the Active Component, as well as higher than expected rates in the National Guard compared to the U.S. population. Based on these results, the Department will not only focus on fully implementing and evaluating a multi-faceted public health approach to suicide prevention, but will target our military populations of greatest concern – young and enlisted Service members and members of the National Guard – and enhance support to our military families. Among other initiatives, our efforts will focus on helping our young and enlisted Service members develop and enhance foundational skills to deal with life stressors early in their military career, as well as recognize and respond to suicide warning signs on social media. For the National Guard members, the Department will work to increase accessibility to mental health care in remote areas, in partnership with the Department of Veteran Affairs, through Mobile Vet Centers during drill weekends, as well as implement the new Suicide Prevention and Readiness for the National Guard (SPRING) initiative. The Department will also continue to support military families by piloting and implementing initiatives to increase awareness of risk factors for suicide, safe storage of lethal means (firearms and medications), and how to intervene in a crisis.

This first-ever ASR is reflective of the Department's efforts to increase transparency and frequency of reporting with respect to military suicides. This ASR also marks the first time the

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<sup>3</sup> Per DoD Instruction (DoDI) 6490.16, suicide rates are not reported for groups with fewer than 20 suicides due to statistical instability.

Department has reported on military family member suicides. This increased transparency and accountability will strengthen our program oversight and policies and assist the Department in its commitment to prevent this tragedy by ensuring the health, safety, and well-being of our Service members and their families.

## **Introduction**

Suicide is the culmination of complex interactions among biological, social, and psychological factors operating at the individual, community, and societal levels. In recognition of this complexity, the Department of Defense (DoD) continues to implement a comprehensive public health approach to suicide prevention. This report will discuss the recent history of suicide prevention within the Department, present recent data, and describe DoD efforts to combat suicide among Service members and their families.

### **Defense Suicide Prevention Office**

In response to rising suicide rates in the DoD, a congressionally-mandated Task Force was established in 2009 to study the issue of suicide in the U.S. military across all branches of Service and to present their findings and recommendations to the Secretary of Defense. In August 2010, the *DoD Task Force on the Prevention of Suicide by Members of the Armed Forces* published a report on how the DoD could more effectively prevent suicide. One of the Task Force's first recommendations was the development of an office within the Office of the Secretary of Defense to provide policy standardization and centralized data surveillance for suicide prevention. In 2012, the Defense Suicide Prevention Office (DSPO) was established as a direct result of this recommendation. DSPO advances holistic, data-driven suicide prevention in our military community through policy, oversight, and engagement to positively impact individual beliefs and behaviors, as well as instill systemic culture change. DSPO actively engages and partners with the Military Services, other governmental agencies, non-profit organizations, and the broader community to support Service members and foster a climate that reduces stigma and promotes help-seeking.

### **Purpose of this Report**

The DoD ASR satisfies reporting requirements established by the Office of the Under Secretary of Defense for Personnel and Readiness in October 2018, requiring DSPO to produce an annual report that serves as the official release authority for annual suicide counts and unadjusted rates for the DoD, while also including information about DoD efforts and initiatives towards the prevention of suicide in the military. This report also provides suicide data on military family members per section 567 of the Carl Levine and Howard P. "Buck" McKeon National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2015. Data and input for this report were obtained from many sources, including the Armed Forces Medical Examiner System (AFMES), Military Departments, Defense Health Agency (DHA) Psychological Health Center of Excellence (PHCoE), Defense Manpower Data Center (DMDC), and Centers for Disease Control and Prevention (CDC).

# Service Member Suicide Data

To ensure reliability and comparability of surveillance data, clear and consistent terminology with standardized definitions are required. In 2017, the DoD adopted the CDC's recommendations on uniform surveillance definitions for self-directed violence and codified these definitions into policy. In accordance with DoD Instruction (DoDI) 6490.16 "Defense Suicide Prevention Program," the Department defines suicide as "death caused by self-directed injurious behavior with an intent to die as a result of the behavior" (CDC, 2011).<sup>4,5</sup>

## Suicide Death Reporting in the DoD

The Department reports both counts and rates of suicide deaths in the DoD. Suicide counts are useful for understanding the absolute magnitude associated with suicide mortality. However, absolute numbers do not account for differences in population size; and, thus, cannot be used to compare the number of deaths across groups, or within a single group, over time. Rates account for differences in population sizes; and, as such, can provide a more standardized way to make comparisons.<sup>6</sup> In the current report, suicide rates for the Active Component and members of the Selected Reserve (SELRES) are calculated by AFMES in accordance with DoDI 6490.16.<sup>7, 8</sup> Suicide rates are reported per 100,000 Service members for ease of interpretation and as aligned with industry standards (Stone et al., 2018).

## Variability in Suicide Rate Determinations

In the current report, per industry standards, 95% confidence intervals are presented to account for random error associated with suicide rate estimation. A potential source of random error is the misclassification of a suicide (in either direction) due to variation or uncertainty that exists in the manner-of-death determination process.<sup>9</sup> Confidence intervals provide a range of possible values for the suicide rate that account for uncertainty due to random error. This range includes the true value of the suicide rate with 95% confidence. Stated another way, one can be 95% confident that the true suicide rate lies within this range of values. For comparisons of rates across years, two rates are considered to be statistically different if their 95% confidence intervals do not overlap.<sup>10</sup>

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<sup>4</sup> While the Department defines suicide according to this standard, suicidal intent is rarely known. As such, medical examiners and coroners, both internal and external to DoD, must use other criteria to determine manner of death.

<sup>5</sup> The establishment of "intent" in manner of death determinations can be difficult and often varies due to differences in state and/or local laws, inconsistent training of medical examiners and coroners, and vague guidelines and/or operational criteria for determining suicide.

<sup>6</sup> Rates are defined as the total number of suicides divided by the population at risk for a given time period. Rates are necessary, but not always sufficient, for making comparisons across time or groups. Adjustment for demographic and other factors may be required for valid comparisons.

<sup>7</sup> AFMES is responsible for verifying and reporting all active duty suicide deaths. For non-activated members of the SELRES, suicide deaths are determined by civilian medical and legal authorities and reported to AFMES via the Military Services.

<sup>8</sup> Per AFMES guidelines, Service members determined to be absent without leave (AWOL) at time of death are not included in official DoD suicide counts and rates.

<sup>9</sup> Suicide is particularly subject to inaccurate determination. At times, a death cannot be classified as a suicide due to a lack of evidence of intent.

<sup>10</sup> When 95% confidence intervals do not overlap, rates are considered statistically different. However, the opposite is not always true (i.e., two rates with overlap could potentially be significant, particularly when the amount of overlap is small).

## CY 2018 Service Member Data Summary

The section below summarizes annual suicide counts and unadjusted rates (per 100,000 population) for the Active Component, Reserve, and National Guard for CY 2016 - 2018 (**Table 1**). Data for CY 2018 include all known or suspected suicides (both confirmed and pending) as of March 31, 2019, for both the Active and Reserve Components.<sup>11</sup> In accordance with DoDI 6490.16, rates are not reported when the number of suicide deaths is under 20.

**Table 1.** Annual Suicide Counts and Rates per 100,000 Service members by DoD Component and Service, CY 2016 - 2018<sup>1-3</sup>

DoD Component/Service	CY 2016		CY 2017		CY 2018	
	Count	Rate	Count	Rate	Count	Rate
<b>Active Component</b>	<b>280</b>	<b>21.5</b>	<b>285</b>	<b>21.9</b>	<b>325</b>	<b>24.8</b>
Army	130	27.4	114	24.3	139	29.5
Marine Corps	37	20.1	43	23.4	58	31.4
Navy	52	15.9	65	20.1	68	20.7
Air Force	61	19.4	63	19.6	60	18.5
<b>Reserve</b>	<b>80</b>	<b>22.0</b>	<b>93</b>	<b>25.7</b>	<b>81</b>	<b>22.9</b>
Army Reserve	41	20.6	63	32.1	48	25.3
Marine Corps Reserve	19	--	10	--	19	--
Navy Reserve	10	--	9	--	11	--
Air Force Reserve	10	--	11	--	3	--
<b>National Guard</b>	<b>122</b>	<b>27.1</b>	<b>133</b>	<b>29.8</b>	<b>135</b>	<b>30.6</b>
Army National Guard	108	31.3	121	35.5	118	35.3
Air National Guard	14	--	12	--	17	--

1. Source(s): AFMES.
2. Suicide rates for the SELRES include all Service members irrespective of duty status.
3. Per DoDI 6490.16, rates for groups with fewer than 20 suicides are not reported due to statistical instability.

### *CY 2018 Suicide Counts and Rates*

There were 541 confirmed or pending suicide deaths for CY 2018. There were 325 suicide deaths among Service members in the Active Component, 81 deaths in the Reserve, and 135 deaths in the National Guard, respectively.

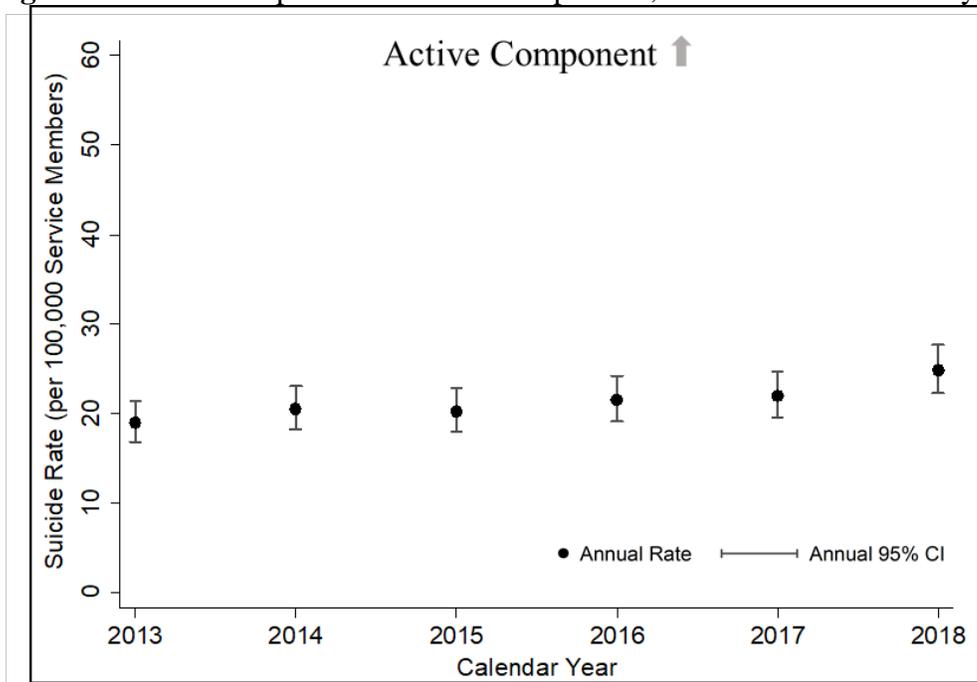
The CY 2018 suicide rate in the Active Component was 24.8 suicide deaths per 100,000 Service members. Across the Military Services, suicide rates ranged from 18.5 to 31.4 per 100,000 Active Component Service members. For the Reserve and National Guard, the rates were 22.9 and 30.6 suicide deaths per 100,000 Service members, respectively. The suicide rate in the Army Reserve was 25.3 suicide deaths per 100,000 Reservists, and the rate for the Army National Guard was 35.3 suicide deaths per 100,000 National Guard members. Per DoD policy, all other Service-specific CY 2018 rates for Reserve and National Guard were not reported due to low counts. Note that the CY 2018 rates were consistent with CY 2016 and CY 2017 rates for all Services and Components.

<sup>11</sup> The Department considers both confirmed and pending (or suspected) suicide deaths as "suicides" to reduce the potential for underestimating the extent of suicide mortality in the DoD.

### *Suicide Rates Over Time: Active Component*

Longitudinal suicide trends for CY 2018 and the preceding five years (CY 2013-2017) are presented below. The ASR focuses on recent surveillance trends (current year plus the previous five years). This approach allows for examination of whether more recent DoD policy or programmatic initiatives are having the desired effect and also reflects the time period most often of greatest focus of Congressional and media inquiries. For a longitudinal assessment of suicide trends in the DoD beginning in CY 2011, refer to **Appendix A**.<sup>12</sup> The Active Component suicide rate, across all Services, statistically increased from CY 2013 to 2018 (18.5 to 24.8 per 100,000 population; **Figure 1**). This increase was attributable to an increase in the number of suicide deaths across all Services. Note that the rates shown are unadjusted, as there were no significant changes in age and sex in the Active Component over time.<sup>13</sup>

**Figure 1.** Active Component Suicide Rates per 100,000 Service Members by CY<sup>1-3</sup>



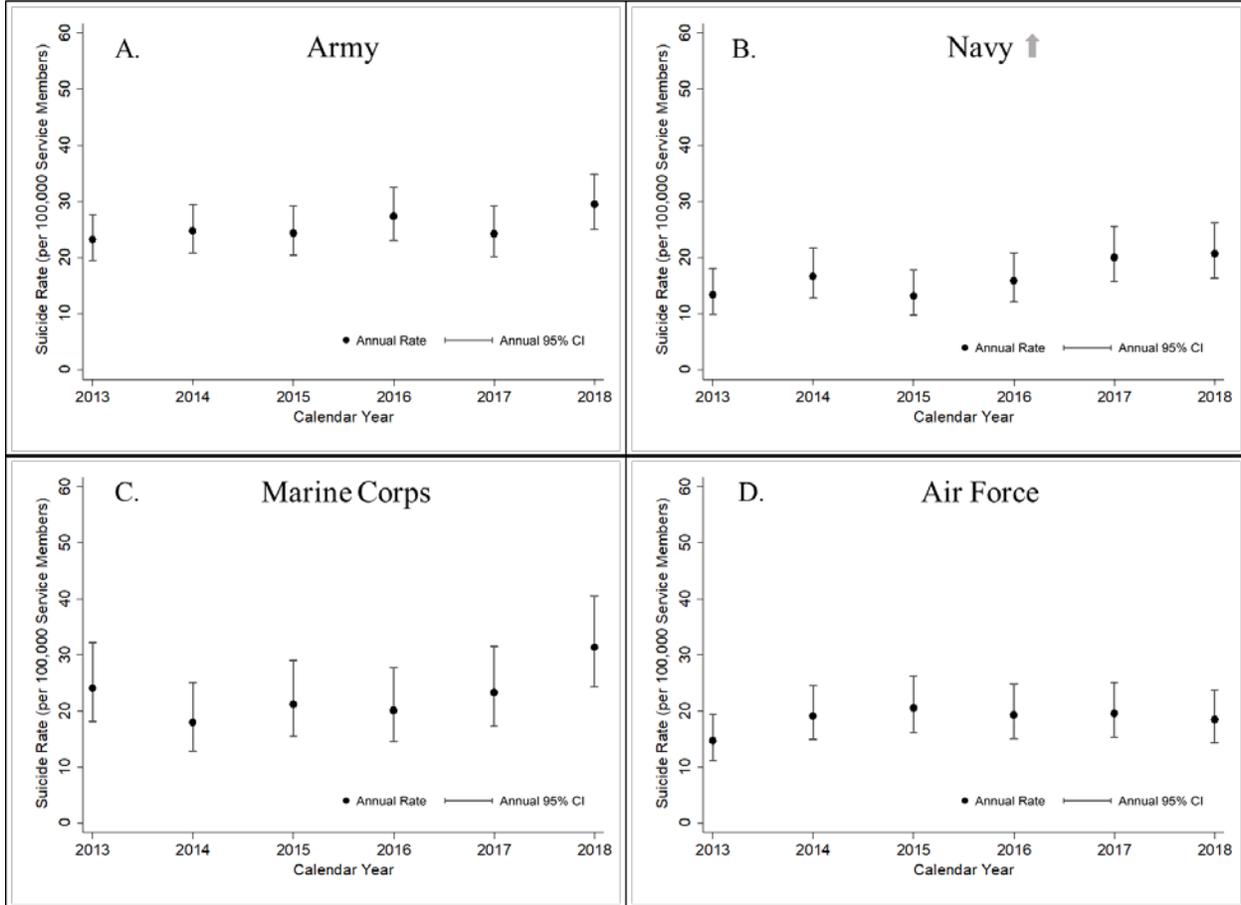
1. Source(s): AFMES
2. Statistically significant increases in rates over time, if present, are indicated by an upward arrow. A statistically significant change in suicide rates over time (CY 2013-2018) was determined by a p-value < 0.05.
3. The 95% confidence interval (indicated by gray bars) represents the range in which the true suicide rate falls with 95% certainty.

<sup>12</sup> Note that statistically significant trends may shift depending on the time frame selected for analysis.

<sup>13</sup> Alternate statistical models were run that adjusted for age and sex. No differences were observed between unadjusted and adjusted models; therefore, unadjusted rates are presented in this report.

Suicide trends for each Military Service in the Active Component are provided in **Figure 2 (A-D)**. The Navy experienced a statistically significant increase in suicide rates between CY 2013 and CY 2018 (12.7 to 20.7; **Figure 2C**). While no statistically significant increases were identified for the other Services over this period, the overall increase in the Active Component was attributable to small increases in the number of suicide deaths across all Services.

**Figure 2.** Active Component Suicide Rates per 100,000 Service Members by CY<sup>1-3</sup>

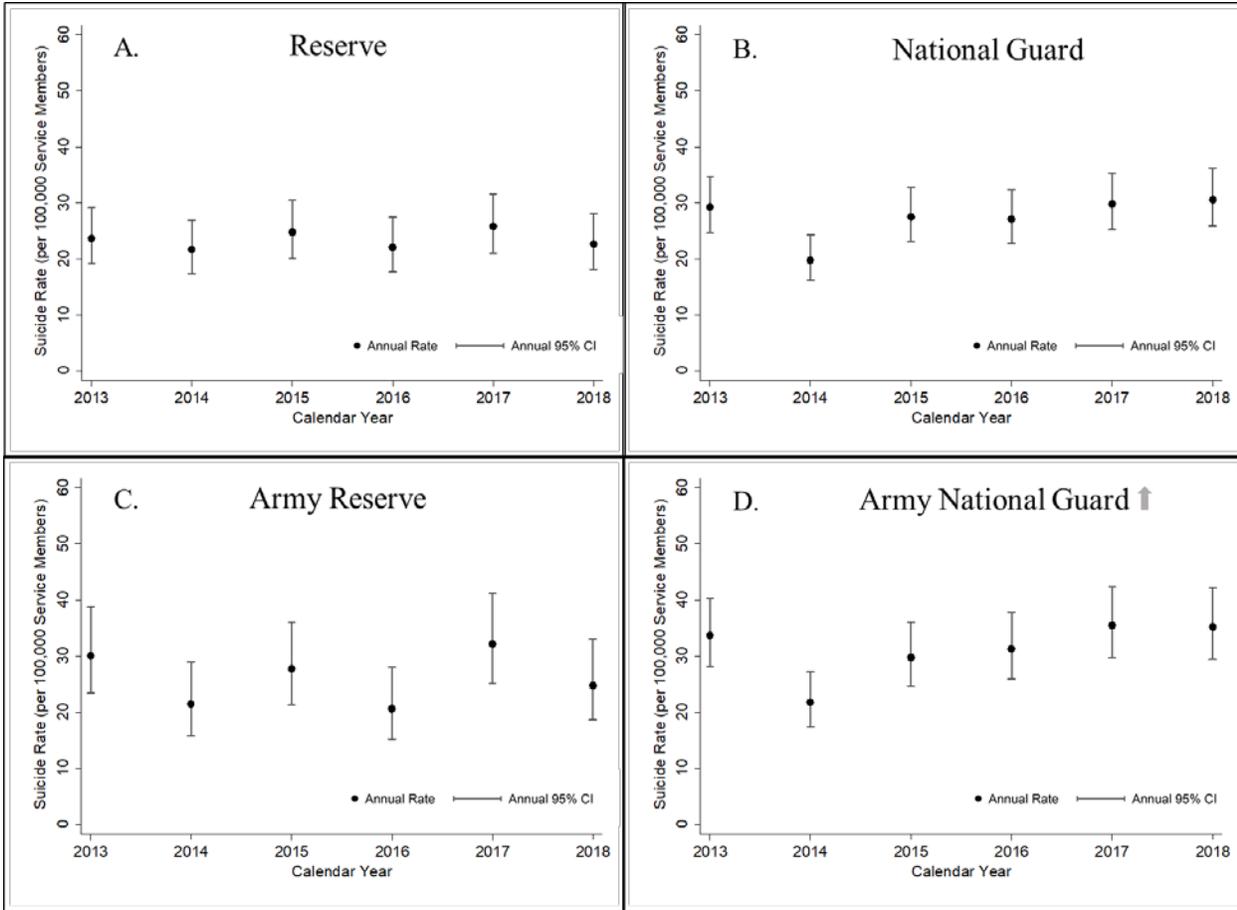


1. Source(s): AFMES.
2. Statistically significant increases in rates over time, if present, are indicated by an upward arrow. A statistically significant change in suicide rates over time (CY 2013-2018) was determined by a p-value < 0.05.
3. The 95% confidence interval (indicated by gray bars) represents the range in which the true suicide rate falls with 95% certainty.

*Suicide Rates Over Time: Reserve and National Guard*

The suicide rate was steady for both the Reserve and National Guard between CY 2013 and CY 2018 (i.e., no statistical change; **Figure 3A/3B**). When examined by Service, suicide rates were steady over time for the Army Reserve and statistically increased for the Army National Guard. Rates for the Marine Corps, Navy, and Air Force Reserve, as well as the Air National Guard, are not reported due to low counts (per DoD policy).<sup>14</sup>

**Figure 3.** Reserve and National Guard Suicide Rates per 100,000 Service Members by CY<sup>1-4</sup>



1. Source(s): AFMES.
2. Per DoDI 6490.16, rates for subgroups with fewer than 20 suicides are not reported due to statistical instability.
3. Statistically significant increases in rates over time, if present, are indicated by an upward arrow. A statistically significant change in suicide rates over time (CY 2013-2018) was determined by a p-value < 0.05.
4. The 95% confidence interval (indicated by gray bars) represents the range in which the true suicide rate falls with 95% certainty.

<sup>14</sup> Per DoDI 6490.16, rates are not reported when the number of suicides is less than 20 due to statistical instability.

## Demographic and Military Profile of Suicide Deaths

The demographic profile of Service members who died by suicide in CY 2018 was similar across the Active Component, Reserve, and National Guard (**Table 2**) and reflected the profile of the Total Force.<sup>15</sup> The majority of suicide decedents in CY 2018 were enlisted (ranging from 91.1% to 93.3% of those who died by suicide across Components), specifically junior enlisted (E1-E4; ranging from 46.8% to 60.5% of those who died by suicide). The majority of Active Component, Reserve, and National Guard suicide decedents were under the age of 30 (67.1%, 72.8%, and 65.2% of those who died by suicide, respectively). The majority of decedents were also male (ranging from 90.1% to 93.5% of those who died by suicide) and white (ranging from 69.1% to 81.5% of those who died by suicide) across the Active Component, Reserve, and National Guard.

**Table 2.** Suicide Counts and Percentages, CY 2018<sup>1-2</sup>

	Active Component		Reserve		National Guard	
	Count	Percent	Count	Percent	Count	Percent
<b>Sex</b>						
Male	304	93.5%	73	90.1%	125	92.6%
Female	21	6.5%	8	9.9%	10	7.4%
<b>Total</b>	<b>325</b>	<b>100%</b>	<b>81</b>	<b>100%</b>	<b>135</b>	<b>100%</b>
<b>Age Group</b>						
17-19	9	2.8%	3	3.7%	10	7.4%
20-24	135	41.5%	29	35.8%	41	30.4%
25-29	74	22.8%	27	33.3%	37	27.4%
30-34	45	13.8%	8	9.9%	13	9.6%
35-39	38	11.7%	5	6.2%	16	11.9%
40-44	16	4.9%	5	6.2%	9	6.7%
45-49	7	2.2%	3	3.7%	7	5.2%
50-54	0	0%	1	1.2%	0	0%
55-59	1	0.3%	0	0%	2	1.5%
<b>Total</b>	<b>325</b>	<b>100%</b>	<b>81</b>	<b>100%</b>	<b>135</b>	<b>100%</b>
<b>Race</b>						
White	234	72.0%	56	69.1%	110	81.5%
Black/African American	42	12.9%	16	19.8%	14	10.4%
American Indian/Alaska Native	2	0.6%	2	2.5%	1	0.7%
Asian/Pacific Islander	23	7.1%	2	2.5%	2	1.5%
Other/Unknown	24	7.4%	5	6.2%	8	5.9%
<b>Total</b>	<b>325</b>	<b>100%</b>	<b>81</b>	<b>100%</b>	<b>135</b>	<b>100%</b>
<b>Rank</b>						
E1-E4	152	46.8%	49	60.5%	72	53.3%
E5-E9	144	44.3%	26	32.1%	54	40.0%
O (Commissioned Officer)	28	8.6%	5	6.2%	9	6.7%
W (Warrant Officer)	1	0.3%	1	1.2%	0	0%
<b>Total</b>	<b>325</b>	<b>100%</b>	<b>81</b>	<b>100%</b>	<b>135</b>	<b>100%</b>

1. Source(s): AFMES.

2. Per DoDI 6490.16, rates for subgroups with fewer than 20 suicides are not reported due to statistical instability.

<sup>15</sup> Total Force includes DoD Active and Reserve Component military personnel. Reserve Component is further limited to members of the Selected Reserve (SELRES).

### Method of Suicide Death

The most common methods of suicide death in CY 2018 across the Active Component, Reserve, and National Guard were firearms, followed by hanging/asphyxiation (**Table 3**).<sup>16</sup> The frequency of suicide deaths by these methods have not significantly changed over time (i.e., CY 2013 to 2018). Less than 3% of all suicide deaths (Active Component, Reserve, and National Guard combined) in CY 2018 were attributable to drugs and/or alcohol.

**Table 3.** Method of Suicide Death by Component, CY 2018<sup>1, 2</sup>

Method of Death	Active Component		Reserve		National Guard	
	Count	Percent	Count	Percent	Count	Percent
Firearm	195	60.0%	50	61.7%	94	69.6%
Hanging/Asphyxiation	92	28.3%	15	18.5%	21	15.6%
Drugs/Alcohol	3	0.9%	3	3.7%	6	4.4%
Sharp/Blunt Object	12	3.7%	1	1.2%	0	0%
Poisoning	4	1.2%	3	3.7%	0	0%
Falling/Jumping	1	0.3%	0	0%	0	0%
Other	3	0.9%	2	2.5%	3	2.2%
Pending/Unknown	15	4.6%	7	8.6%	11	8.1%
<b>Total</b>	<b>325</b>	<b>100%</b>	<b>81</b>	<b>100%</b>	<b>135</b>	<b>100%</b>

1. Source(s): CY 2018 method of death data obtained from AFMES for active duty Service members; method of death data for non-duty status Reserve and National Guard obtained from the Military Services.
2. The poisoning category includes deaths unrelated to drug overdose, such as carbon monoxide poisoning.

### Additional Key Facts Regarding Service Member Suicide

#### *Suicide Rate Comparisons between the Military and U.S. General Population*

The Department is often asked to describe how suicide rates in the military compare to those in the U.S. general population.<sup>17</sup> While the Department recognizes unique differences between the U.S. population and the military population, such comparisons can assist in identifying how the military may reflect patterns seen in the civilian population, and how promising initiatives and interventions may be applicable to military members and families. With that in mind, it is a common misconception that military suicide rates are much higher than the U.S. general population (see **Appendix B: Common Suicide Misconceptions, #1**).<sup>18</sup> In CY 2017, the suicide rate for the U.S. population, ages 17-59, was 18.2 deaths per 100,000 individuals.<sup>19</sup> By comparison, the suicide rate in the military in CY 2017 ranged from 21.9 in the Active Component to 29.8 in the National Guard. On the surface, suicide in the military appears to be

<sup>16</sup> In CY 2017, approximately 90% of active duty Service members who died by firearm suicide used a personally-owned firearm (as opposed to a military-issued firearm; DoDSER Annual Report, CY 2017).

<sup>17</sup> Any increases in suicide rates in the military population is likely correlated and/or connected with increases in the U.S. population. As Service members are selected from the U.S. population, they are not necessarily exempt from broader suicide trends in the U.S. population.

<sup>18</sup> Suicide rates calculated for the U.S. population are often incorrectly cited as “civilian” rates. However, a true “civilian” rate is unable to be accurately calculated at this time, in part, due to difficulties associated with U.S. state and local authorities correctly identifying the military status of deceased individuals. As a result, CDC civilian rates include Service members and Veterans.

<sup>19</sup> The most recent data for the U.S. population at the time of this report is for CY 2017.

markedly higher than the U.S. population—the rate is at least 48% higher depending on Component. Nevertheless, the direct comparison of military suicide rates and the U.S. population is misleading. It is well established that males have nearly four times higher risk of suicide death than females.<sup>20</sup> As the U.S. military is comprised of a higher percentage of males (85%) compared to the U.S. population (49.2%; Howden & Meyer, 2011), it is not surprising that the suicide rate is higher in the military. Age is another demographic factor that is associated with suicide risk and also varies substantially between the military and U.S. population. The U.S. military is made up of a higher percentage of younger individuals (mean age = 28.5) than the U.S. population (mean age = 41.3). Given the differences in composition between the U.S. military and general population, any comparison of suicide rates must therefore first account for age and sex. After accounting for these factors, the CY 2018 military suicide rates were roughly equivalent to CY 2017 U.S. population rates for all Components, except the National Guard (PHCoE, 2019; DoD Suicide Event Report data; **Appendix A**).<sup>21,22,23</sup>

#### *Additional Common Suicide Misconceptions and Facts*

There are a number of common misconceptions about military suicide rates, which can often distract from critical conversations about how to prevent suicide in military populations. Beyond the common misconception that military suicide rates are much higher than the U.S. general population, other common misconceptions are that: 1) deployment increases suicide risk among Service members; 2) the majority of Service members who die by suicide had a mental illness; 3) removing access to one lethal means will cause someone at risk for suicide to replace it for another; and 4) talking about suicide will lead to suicide. **Appendix B** provides information to help clarify these common suicide misconceptions.

While an in-depth examination of the risk and contextual factors associated with suicide is beyond the scope of this report, it is prudent to highlight a few additional factors that may contribute to military deaths by suicide.<sup>24</sup> Prior DoD suicide surveillance reports and other military-focused research highlight a number of risk factors that are associated with military deaths by suicide, including: relationship, financial, and legal/administrative problems; ineffective life/coping skills; and reluctance to seek help and perceived stigma to engage in suicide care/treatment.

While the DoD and civilian populations share challenges in preventing suicide, many factors found to increase risk for suicide are distinct to military populations as compared to civilian populations, including Veterans. However, many of these risk factors are shared across populations. Relationship stressors, such as failed or failing intimate partner relationships, are frequently cited risk factors for suicide (LeardMann et al., 2012). In the military, failed or failing relationships in the 90 days prior to death were reported in 36.9% of active duty suicides in CY

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<sup>20</sup> Centers for Disease Control and Prevention (CDC). Web-based Injury Statistics Query and Reporting System (WISQARS). Available from <http://www.cdc.gov/injury/wisqars/index.html>. Most recent year data is available is 2017.

<sup>21</sup> Comparisons between the military and U.S. population are reported annually in the DoDSER Annual Report. For detailed methodology related to the calculation of these adjusted rates, please see the most recent report (CY 2017).

<sup>22</sup> The National Guard faces unique challenges including geographic dispersion, significant time between military activities, DoD/VA healthcare eligibility and access to care, and variance in programs and resources across the 54 U.S. states and territories.

<sup>23</sup> The most recent data for the U.S. population at the time of this report is for CY 2017.

<sup>24</sup> For a detailed examination of these contextual factors, please refer to the most recent DoDSER Annual Report (CY 2017).

2017 (Pruitt, Smolenski, Tucker, et al., 2019). Research studies on military suicides and related behaviors also indicate that for some individuals, financial stress, in combination of other factors (e.g. relationship issues, mental health problems) can increase vulnerability for suicide (Goodin, et al., 2019; Turunen & Hiilamo, 2014; Ursano, Fullerton, & Dichtel, 2016). When examining surveillance data on military suicide, financial difficulties, including excessive debt and bankruptcy in the 90 days prior to death, were reported for 7.4% of active duty Service members who died by suicide (Pruitt, Smolenski, Tucker, et al., 2019). Moreover, approximately 30% of active duty Service members who died by suicide had administrative or legal difficulties (e.g., article 15, administrative separations, medical evaluation board proceedings, civil legal proceedings) in the 90 days prior to death (Pruitt, Smolenski, Tucker, et al., 2019). As noted earlier, military suicide is very complex and there is always an interaction of many interrelated factors for each suicide (Knox & Bossarte, 2012).

Also, of note, approximately one-half (51.5%) of Service members who died by suicide received some form of care (though not necessarily suicide- or behavioral health-related care) via the Military Health Service (MHS) in the 90 days prior to death (Pruitt, Smolenski, Tucker, et al., 2019). Although it is not known whether these individuals were suicidal at the time of contact, these contacts could represent opportunities for identification and treatment of suicidal risk. The Department collects detailed information on all of these factors via the DoDSER system; this additional data will be included in the forthcoming 2018 DoDSER Annual Report.

## **Military Family Suicide Data**

Section 567 of the NDAA FY15, requires the DoD to collect, account, and assess any death that is determined to be a suicide involving a military family member (as defined in Title 10, U.S. Code). When the NDAA FY15 was enacted, the Department did not have an enterprise-wide capability to collect and analyze information on deaths among military family members. The majority of military family members are civilians whose deaths do not occur on a military installation. As a result, the Department does not have visibility on, or jurisdiction over, these deaths and must seek out other ways to obtain this information.

To address this challenge, the Department has been developing a process to collect and analyze data on suicide deaths of military family members. No single source provides a full accounting of suicide deaths among military family members; as such, a combined approach ensures that the Department is capturing the most complete information on military family member deaths as possible. The current DoD strategy employs a multi-pronged approach that leverages both military data and civilian data from the following sources: 1) Defense Enrollment Eligibility Reporting System (DEERS); 2) Military Services; and 3) CDC National Center for Health Statistics (NCHS) National Death Index (NDI).<sup>25,26,27</sup> The latter data source, the NDI, is

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<sup>25</sup> In CY 2016, modifications were made to DEERS to allow manner of death to be captured when Service members provide death certificates of their family members via their Real-Time Automated Personnel Identification System (RAPIDS) station.

<sup>26</sup> Service members must submit family member death certificates to the Services' Casualty Offices to receive Family Service members' Group Life Insurance (FSGLI) benefits.

<sup>27</sup> The Air Force Office of Special Investigations (OSI) also collects information on military family member deaths.

currently available for CY 2017 only. As such, the data presented in this report reflect counts and rates for military families and dependents from CY 2017.

Note that the completeness of military family member death data rely to a large extent on the ability of the Department to capture comprehensive information on military family members in DEERS. Some family members are not eligible to receive military benefits. As a result, DoD may not be able to retrieve all suicide death records on military family members, and suicide counts and rates presented in this report may be underestimated for this population.

### **Definition of Military Family Member**

Section 1072 (2) of the Title 10 U.S. Code defines a military family member with respect to a member (or former) member of a uniformed Service, as:

1. A spouse;
2. Unremarried widow or widower;
3. Child who is:
  - a. Unmarried and under the age of 21; or
  - b. Physically or mentally incapable of self-support (regardless of age); or
  - c. Enrolled in full-time course of study at an institution of higher learning; dependent on the member for over one-half of their support; and under the age of 23;<sup>28</sup>
4. Unremarried former spouse of a current or former Service member;<sup>29</sup>
5. Unmarried person who is placed in the legal custody of the Service member as a result of a court order (e.g., a sibling);<sup>29</sup> and
6. A parent or parent-in-law who is dependent on the Service member for over one-half of his/her support and residing in his/her household.

For the purpose of the current report, military family members are limited to spouses and dependent children (minor and non-minor), who are eligible to receive military benefits under Title 10 and registered in DEERS.<sup>30,31</sup> For simplicity, dependent children are hereafter referred to as “dependents” throughout the report.

### **CY 2017 Family Member Data Summary**

The section below summarizes suicide counts and annual rates for military spouses and dependents (defined in Title 10, U.S. Code) for CY 2017 (**Table 4**).<sup>32</sup> Data for CY 2018 were unavailable for this report due to the time lag inherent in the collection of civilian death data.<sup>33</sup> In this report, family members could also be active Service members, as section 1072(2) of Title 10 does not explicitly exclude Service members from the definition of a dependent.<sup>34</sup> Inclusion

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<sup>28</sup> Dependents includes biological, step-, foster, ward, preadoptive, and domestic partner children.

<sup>29</sup> Additional criteria may apply (see section 1072(2) of Title 10, U.S. Code).

<sup>30</sup> DoD is unable to capture information on military family members unless they have received benefits; and thus, are registered in DEERS.

<sup>31</sup> Other types of family members (e.g., parents, siblings, former spouses) who meet the specifications of Title 10 are not as reliably captured in DEERS, as they must be registered by the Service member. As a result, DoD cannot reliably track the deaths by suicide among these individuals.

<sup>32</sup> Note that, while not included in Table 4 counts for the military, per NDAA FY15, DoD collects data on suicide deaths for family members of the U.S Coast Guard (USCG). In CY 2017, there were 3 USCG military family deaths.

<sup>33</sup> It can take between 12 to 18 months for the CDC to receive death information from the state vital statistics offices. As a result, there is a 2-year lag between the most recent available death information and any related report on military family member suicides.

<sup>34</sup> Additionally, dual Service members can receive some family member benefits (e.g., FSGLI), which requires that they be registered in DEERS.

of dual Service members in family member suicide counts and rate estimation allows the Department to better capture the full extent of suicide among military family members.

**Table 4.** Family Member Suicide Rates per 100,000 by Component, CY 2017<sup>1-3</sup>

	Dependent		Spouse		Total	
	Count	Rate	Count	Rate	Count	Rate
Active Component	--	2.9	--	13.2	122	7.0
Reserve	--	--	--	11.7	29	6.2
National Guard	--	6.9	--	--	35	6.5
<b>Total Force</b>	<b>63</b>	<b>3.8</b>	<b>123</b>	<b>11.5</b>	<b>186</b>	<b>6.8</b>

1. Source(s): DEERS, Military Services, and NDI (suicide counts); DMDC (denominators).
2. Per DoDI 6490.16, rates for subgroups with fewer than 20 suicides are not reported due to statistical instability.
3. Per CDC requirements, counts under 10 were suppressed in order to protect the confidentiality of military family members. Additional cells were also suppressed to ensure low counts could not be recreated.

### *CY 2017 Suicide Counts*

There were 186 reported suicide deaths among military spouses and dependents in CY 2017 (**Table 4**). One hundred and twenty-three (n=123) suicide decedents were military spouses and 63 decedents were military dependents. The majority of military spouses who died by suicide were female (69%) and under 40 years of age (82%), consistent with demographics of the overall military spouse population. The majority of military dependents who died by suicide were male (70%). While the ages ranged from 12-23 years old, almost 50% of dependent deaths were among dependents who were 18 years old or older. Of those younger than 18 years old, the majority of deaths occurred between the ages of 15 and 17 (62%).

### *CY 2017 Suicide Rates for Military Families and Comparisons to the U.S. General Population*

The suicide rate among family members, all Services and Components combined, was 6.8 per 100,000 military family members (**Table 4**). This rate was lower than the U.S. general population (14.5 per 100,000 individuals) for the same year.<sup>35</sup> This difference was not surprising, as the sex and age composition differs between the two populations.<sup>36</sup> The family member suicide rates were similar for the Active Component, Reserve, and National Guard, ranging from 6.2 to 7.0 deaths per 100,000 individuals.

### *Suicide Rates by Sex for Military Family Members*

Suicide rates by sex and family member type (spouse or dependent) are presented in **Table 5**.<sup>37</sup> The suicide rate for military spouses was 11.5 deaths per 100,000 in the population. When examined by sex, suicide rates for female and male spouses, ages 18 to 60, were 9.1 and 29.4 per 100,000 populations, respectively. These rates were comparable to similar age (18 to 60 years of age) female and male rates in the U.S. population (8.4 and 28.4 per 100,000, respectively).

<sup>35</sup> Age ranges for suicide rates included dependents 0-23 years old and spouses 18-60 years old.

<sup>36</sup> Compared to the U.S. population, military spouses are younger and more likely to be female and military dependents are younger.

<sup>37</sup> Per DoDI 6490.16, age-specific rates were not presented as the number of suicide counts were less than 20 for each age grouping.

**Table 5.** Military Family Suicide Rates per 100,000 Individuals by Sex, CY 2017<sup>1-3</sup>

	Dependent		Spouse		Total	
	Male	Female	Male	Female	Male	Female
Active Component	3.8	--	30.8	10.8	7.3	6.8
Reserve	--	--	--	--	--	--
National Guard	--	--	--	--	11.7	--
<b>Total Force</b>	<b>5.2</b>	<b>--</b>	<b>29.4</b>	<b>9.1</b>	<b>8.4</b>	<b>5.9</b>

1. Source(s): DEERS, Military Services, and NDI (suicide counts); DMDC (denominators).
2. Per DoDI 6490.16, rates are not reported when suicide counts are less than 20 due to statistical instability.
3. To facilitate comparisons with the U.S. general population, 95% confidence intervals for the rates were calculated.

The overall suicide rate for military dependents (both males and females) was 3.8 per 100,000 population. The suicide rate for male military dependents (5.2 per 100,000 population) was lower than the rate among similar-age (< 23 years) males in the U.S. population (9.3 per 100,000 population). This finding was somewhat expected, as dependents of active Service members are younger on average than dependents in the U.S. general population.<sup>38</sup> Per DoD policy, the suicide rate for female military dependents was not reported (i.e., counts were under 20 for this group).

#### *Method of Family Member Suicide Death and Comparisons to the U.S. General Population*

For both military spouses and dependents, firearm was the most common method of suicide death (with the exception of dependents of National Guard members, with the most common method of hanging/asphyxiation at 50.0% of those who died by suicide). The proportion of suicide deaths by firearm ranged from 52.2% to 63.6% for spouses and 45.8% to 77.8% for dependents, depending on Component (i.e., Active Component, Reserve, or National Guard). The second leading method of death of those who died by suicide was hanging/asphyxiation for most Components (ranging between 18.2% to 20.0% for spouses and 22.2% to 50.0% for dependents). Overall, across all Components and military family members, 52.7% of suicide deaths were by firearm and 26.3% were by hanging/asphyxiation. Firearm remained the leading method of suicide death when examined by sex, even for female spouses (49.4%). This finding appears to deviate from the U.S. general population, in which the leading methods of suicide for females in CY 2017 were poisoning/drug overdose (31.4%) and firearm (31.2%), closely followed by hanging/asphyxiation (27.9%).

## **Current and Future Departmental Efforts**

### *Current Suicide Prevention Strategy, Governance, and Efforts*

The Department recognizes that every life lost to suicide is a tragedy and remains committed to the priority of prevention. The DoD embraces a public health approach to suicide prevention that acknowledges a complex interplay of individual-, relationship-, and community-level risk factors. This approach focuses on reducing suicide risk of all Service members and their family

<sup>38</sup> Suicide rates are low for dependents under age 15 (i.e., 1.7 and 3.3 per 100,000 for females and males between the ages of 10 and 14 years in CY 2017; CDC, 2018).

members by attempting to address the myriad of underlying risk factors and socio-demographic factors (e.g., reluctance towards help-seeking, relationship problems, financial difficulties, and access to lethal means), while also enhancing protective factors (e.g., strong social connections, problem-solving and coping skills).

The Department's suicide prevention efforts are guided by the Defense Strategy for Suicide Prevention (DSSP), which was signed in December 2015. The DSSP created the foundation and alignment of efforts to focus on prevention activities using a public health approach, which provides the greatest potential to prevent suicide. When developing the DSSP, the Department worked with experts in the field and aligned the strategy to the National Strategy for Suicide Prevention (NSSP), as published in 2012 by the Department of Health and Human Services, Office of the U.S. Surgeon General. The DSSP uses the public health framework laid out in the NSSP, and includes both community-based prevention efforts and medical care and treatment in order to address suicidal thoughts and risk behaviors.

The Department's suicide prevention efforts are led by a suicide prevention governance body, comprised of senior executive leaders and general officers from the Military Departments, Office of Force Resiliency, Office of the Assistant Secretary of Defense for Health Affairs, Office of the Assistant Secretary of Defense for Manpower and Reserve Affairs, Joint Staff, National Guard Bureau, and the U.S. Coast Guard. This Suicide Prevention General Officer Steering Committee (SPGOSC) addresses present and future suicide prevention needs, employing data-driven, evidence-informed practices that are aligned with the DSSP and have DoD-wide applicability. In addition, a complementary enterprise-wide, action-officer level committee—the Suicide Prevention and Risk Reduction Committee (SPARRC)—is responsible for coordinated implementation of the guidance provided by the SPGOSC. The SPARRC also provides an opportunity for collaboration, communication, and documentation of suicide prevention promising practices across the DoD.

In 2017, the CDC released a bundled public health approach as a technical package, employing seven broad, evidence-informed strategies to focus on suicide prevention activities that have been found to effectively impact risk and protective factors surrounding suicide (Stone et al., 2017). These public health strategies to prevent suicide, support the goals of the 2015 DSSP, and include:

1. Strengthening economic supports
2. Strengthening access and delivery of suicide care
3. Creating protective environments
4. Promoting connectedness
5. Teaching coping and problem-solving skills
6. Identifying and supporting people at risk
7. Lessening harms and preventing future risk

Highlighted below are 15 selected Departmental suicide prevention initiatives that align to the aforementioned CDC strategies. These examples are by no means an exhaustive list. These initiatives address some of the key findings in this report, as well as data collected by the DoDSER and other sources. These initiatives represent examples of suicide prevention efforts across the Department. Unless otherwise indicated, the highlighted initiatives reflect new evidence-informed efforts that are currently being piloted, or that will be piloted over the next CY. Based on the effectiveness of these pilots, these new initiatives may be implemented more broadly across the Department. The highlighted initiatives are listed below according to the seven broad, evidence-informed strategies, with their linkage to one or more overarching goals within the DSSP also delineated.

## **Strengthening Economic Supports**

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*DSSP Goal 3: Educate military community on the protective factors against suicide that also promote resilience and recovery in the Department of Defense.*

*DSSP Goal 5: Develop, implement, and monitor effective Department of Defense programs that promote resilience, and prevent suicide and related behaviors.*

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As mentioned earlier in this report, research studies on military and civilian suicides and related behaviors indicate that for some individuals, financial stress can increase overall stress, and can represent an environmental risk for suicide (Turunen & Hiilamo, 2014; Ursano, Fullerton, & Dichtel, 2016). Financial difficulties, including excessive debt and bankruptcy, were present in the 90 days prior to death in 7.4 percent of CY 2017 active duty suicides (Pruitt, Smolenski, Tucker, et al., 2019). Nevertheless, it is important to note that financial stress rarely operates to increase suicide without a constellation of other biological, interpersonal, and psychological risk factors of suicide (LeardMann et al., 2012). Below are on-going Departmental efforts focused on strengthening the financial well-being of Service members and their families, while decreasing this environmental risk for suicide.

### *Service Member and Family Financial Resources: On-Going Efforts*

The Office of Financial Readiness and the Military Services provides programs, resources, and professional support to help Service members achieve financial readiness, maintain skills to make informed financial decisions, and meet personal and professional goals throughout the military lifecycle. Financial literacy training is offered to prepare members and their families to respond to the financial circumstances of personal and professional events, whether those are the financial implications of getting married, managing finances during deployment, or conducting a permanent change of station. In addition to traditional classroom or computer-based training, the DoD is developing innovative learning approaches to meet the needs of members. These include short, video "microlearning" modules intended to provide brief, accessible information on financial considerations at each military lifecycle touchpoint, as well as on specific financial topics associated with each touchpoint (such as understanding the military leave and earnings statement during initial training).

One-on-one financial counseling is offered to Service members and their families through a number of resources. The Military Services employ approximately 400 Personal Financial Managers (PFMs) at military installations worldwide. These nationally-accredited professionals provide unbiased financial counseling and classroom education. The DoD also deploys a flexible, contracted network of more than 315 nationally-accredited Personal Financial Counselors (PFCs) to supplement PFMs at military installations. PFCs also provide support to short, on-demand needs of the Reserve and National Guard, such as drill weekends, annual training, family events, or deployment preparations. In addition, some Military Services train select non-commissioned officers (NCOs) to provide front-line financial readiness support to fellow members as a collateral duty to their typical responsibilities. These Command Financial NCOs and Command Financial Specialists can provide basic financial management assistance and serve as an advocate within their unit to promote the importance of financial readiness.

Service members and their families also have access to free, confidential financial counseling via Military OneSource—a 24/7 call center and website. Accredited financial counselors provide telephonic, video, and in-person financial counseling at many locations. Military OneSource provides a valuable resource for members and families to access personal support at any time.

### **Strengthening Access and Delivery of Suicide Care**

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*DSSP Goal 8: Promote suicide prevention as a core component of Military Healthcare Services.*

*DSSP Goal 9: Promote and implement effective clinical and professional practices in the Military Healthcare Services for assessing and treating those identified as being at risk for suicidal behaviors.*

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Findings from this report, as well as prior DoDSER Annual Reports, indicate that the majority of Service members who die by suicide are enlisted, less than 30 years of age, male, and white, regardless of Component (Pruitt, Smolenski, Tucker, et al., 2019). It is important to note that this group is a large cross-section of the military population and that having these demographic characteristics, alone, does not put one at risk for suicide. Given the size of this cross-section, it is important for the Department to develop universal approaches that tie suicide prevention to the unique characteristics of military life and culture. Among Service members who experienced significant distress, the greatest barrier to receiving care is stigma—the perception of being seen as weak or of being treated differently by leadership (Sharp et al., 2015). In response, the following example pilot initiatives have been launched to reduce stigma and strengthen access and delivery of suicide care.

#### *Zero Suicide Pilot*

The Zero Suicide framework is a system-wide, organizational commitment to safer suicide care in health and behavioral health care systems. The foundational belief of the Zero Suicide program is that suicide deaths for individuals receiving care within health and behavioral health

systems can be prevented. According to the CY 2017 DoDSER Annual Report, 51.5% of Service members who died by suicide received some form of care (though not necessarily suicide- or behavioral health-related care) via the Military Health Service (MHS) in the 90 days prior to death. Although it is not known whether these individuals were suicidal at the time of contact, these contacts could represent opportunities for identification and treatment of suicidal risk. The Department funded a pilot study with the Air Force to train medical personnel at five Air Force Military Treatment Facilities (MTFs) on suicide risk assessment, safety planning, means safety education, and assessment of the effectiveness of suicide-related outcomes. The results of the pilot (expected in late CY 2019) will inform the decision to potentially pilot or begin implementing the Zero Suicide Framework more broadly in the DoD.

#### *Resources Exist and Can Help (REACH) Training Pilot*

REACH is a barrier reduction training intervention designed to address the most prevalent help-seeking concerns of Service members (e.g., career and security clearance loss concerns, loss of privacy/confidentiality, and preference for self-management), and encourage Service members to seek out help early on, before life challenges become overwhelming. Through the training, Service members will become more familiar with help-seeking resources by observing a call to Military OneSource, identifying different resources, and addressing perceptions of seeking care. The REACH intervention is currently in development and is expected to begin piloting at participating sites in CY 2020.

#### *National Guard Bureau and VA Mobile Vet Center Initiative*

The National Guard Bureau (NGB) and the Department of Veterans Affairs (VA) have a shared goal to provide services to geographically dispersed Service members, Veterans, and their families. VA mobile teams support outreach and support services (e.g., socioeconomic, financial, coping, and life skills readjustment counseling, referral, and care coordination) during drill weekends to improve National Guard force readiness and transition adjustment, and to reduce suicides and other negative behaviors. This strategy provides an opportunity for early identification, readjustment counseling, and referral support to members of the National Guard in a systematic and centralized manner during drill weekends. It includes facilitating services to National Guard members who are not eligible for other VA services. The initiative began in CY 2019.

## Creating Protective Environments

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*DSSP Goal 2: Implement research-informed communication efforts within the Department of Defense that prevent suicide by changing knowledge, attitudes, and behaviors.*

*DSSP Goal 6: Promote efforts within the Department of Defense to reduce access to lethal means of suicide among individuals with identified suicide risk.*

*DSSP Goal 7: Provide military community service providers and military healthcare service providers evidence-based training on the prevention of suicide and related behaviors.*

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The Department regards the safety of our military families and dependents as highly as the safety of our military members. The military is only as strong as those who are supporting them day-in and day-out. As such, understanding and mitigating the risk factors for suicide in our military families is a top priority. This report indicates that the primary method of suicide death for Service members, military spouses, and their dependents was by firearm. Multiple research studies in the civilian population have shown the presence of a household firearm to be associated with an increased risk of suicide among adults and adolescents (Grossman et al., 2005). The risk of unintentional and self-inflicted firearm injury is lower when all household firearms are stored locked (Monuteaux et al., 2019).

Research has also shown that sometimes it only takes five to ten minutes for a suicidal individual to go from thinking about suicide to acting on it (Nock et al., 2018). When lethal means are made less available or less deadly, suicide rates have been shown to decrease in both U.S. and international populations (Anestis & Anestis, 2015). Delaying the time between the thought and action by decreasing access to lethal means can help prevent suicide, because it allows more time for intervention (Deisenhammer et al., 2009; Simon et al., 2001; U.S. Department of Health and Human Services, 2012). Means safety interventions have been shown to decrease suicide rates; in fact, such interventions have demonstrated more potential for reducing suicides than clinical interventions (Zalsman et al., 2016). Below are examples of two new initiatives focused on means safety for Service members and their families.

### *Counseling on Access to Lethal Means Training Pilot*

Counseling on Access to Lethal Means (CALM) is a training designed to help civilian mental health professionals implement counseling strategies to reduce access to lethal means and help promote safe use and storage of firearms for individuals at risk for suicide. The Department is piloting the CALM training for non-medical military providers, such as Military and Family Life Counselors and Military OneSource triage consultants. Initial training for the providers began in CY 2019 and CALM will be expanded to chaplains and community counselors in installation-based Personnel and Family Support Centers in CY 2020. This pilot will include representation from all Military Services.

## *Social Norms for Safe Firearm Storage*

Safe firearm storage is described as consistently securing a firearm with a gun lock or gun safe, separate from ammunition, when not in use. There are four factors that protect firearm-owning homes from suicides: 1) using gun locks, 2) keeping firearms unloaded, 3) storing ammunition separate from firearms, and 4) storing firearms away from the home (Grossman et al., 2005). Public health messaging on safe firearm storage is needed in order to promote firearm safety practices as an acceptable norm and decrease risk. The Department will implement a collaborative communications campaign to promote social norms for safe storage. Like other public health campaigns focused on reducing smoking, reducing drunk driving, and increasing breast cancer screening, safe firearm storage messaging will have a clear goal and an easy-to-remember slogan for greater reach to Service members and their families. The messages are currently in development and are expected to be disseminated in CY 2020 across all Services.

## **Promoting Connectedness**

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*DSSP Goal 2: Implement research-informed communication efforts within the Department of Defense that prevent suicide by changing knowledge, skills, and behaviors.*

*DSSP Goal 3: Educate military community on the protective factors against suicide that also promote resilience and recovery in the Department of Defense.*

*DSSP Goal 5: Develop, implement, and monitor effective Department of Defense programs that promote resilience, and prevent suicide and related behaviors.*

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As mentioned earlier in this report, relationship stressors, such as failed or failing intimate partner relationships, are frequently cited risk factors for suicide. For example, failed or failing relationships in the 90 days prior to death were reported in 36.9% of active duty suicides in CY 2017 (Pruitt, Smolenski, Tucker, et al., 2019). Research suggests strong social connections protect against suicide, along with undeniably enhancing the quality of one's life (CDC, 2008; Straus et al., 2019). By facilitating access to additional peer support by phone or web, or implementing active contacts from health professionals after a crisis, promoting connectedness can have far reaching, positive effects on the entire population. The following on-going efforts complement the existing military organizational structure and support by enhancing connectedness during times of stress or transition.

### *Peer-to-Peer Support: On-Going Effort*

The Department provides access to peer-to-peer support through Military OneSource, the Department's 24/7 call center and website that provides comprehensive information, resources, and assistance on every aspect of military life at no cost to the user. Service members and military spouses can contact Military OneSource to schedule an appointment with consultants who are Veterans, members of the National Guard or Reserve, or military spouses and can relate to callers through their shared experience.

### *Non-Medical Counseling: On-Going Effort*

The Department provides access to non-medical counselors through the Military and Family Life Counseling and Military OneSource programs at no cost to Service members and their families. Counselors possess a master's or doctorate degree in a mental health field and are licensed or certified in a state, territory, or the District of Columbia to practice independently. Military and Family Life Counselors provide services, face-to-face, on and near military installations. Military OneSource offers non-medical counseling face-to-face, by phone, secure online chat, and video through a network of counselors in the local community. Non-medical counseling can address issues such as relationship and parenting skills, stress management, and coping with loss and grief. If issues need more intensive care, non-medical counselors will refer individuals to military treatment facilities, TRICARE, or other helping resources as appropriate. Service members and military spouses can contact Military OneSource to locate and schedule an appointment with a non-medical counselor.

### **Teaching Coping and Problem-Solving Skills**

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*DSSP Goal 2: Implement research-informed communication efforts within the Department of Defense that prevent suicide by changing knowledge, attitudes, and behaviors.*

*DSSP Goal 3: Educate military community on the protective factors against suicide that also promote resilience and recovery in the Department of Defense.*

*DSSP Goal 5: Develop, implement, and monitor effective Department of Defense programs that promote resilience, and prevent suicide and related behaviors.*

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This report emphasizes the need to target efforts towards the military's youngest population. Emerging research indicates that some Service members have stressful life events that they are unable to "adjust" to or cope with and may exacerbate their vulnerability to suicide (Bachynski et al., 2012; Wilks et al., 2019). For example, administrative or legal difficulties (e.g., article 15, administrative separations, medical evaluation board proceedings, civil legal proceedings) in the 90 days prior to death were reported for approximately 30% of active duty Service members who died by suicide in CY 2017 (Pruitt, Smolenski, Tucker, et al., 2019). Addressing coping and problem-solving, particularly among young, new Service members at this formative stage in life, may normalize how Service members address stress, seek help when needed, and solve problems without violence or self-harm. Below is an example of a new initiative focused on teaching such coping and problem-solving skills, which the Department can target to our youngest population with the intention of teaching enduring skills that can help change culture around how to handle inevitable life stressors.

## *Rational Thinking–Emotion Regulation–Problem-Solving Training Pilot*

The Department, in collaboration with Uniformed Services University of the Health Sciences (USUHS), is developing an interactive, evidence-informed educational program to be delivered early in the military career to improve new Service members’ short- and long-term functioning in the areas of rational-thinking, emotion regulation, and problem-solving. The Rational Thinking-Emotion Regulation-Problem-Solving (REPS) training is designed as a suicide prevention strategy to reduce overall risk for suicidal behaviors over time among Service members and to address Service members’ preference for self-management. The pilot began in CY 2019, and is being implemented at the Navy “A” school, the first stop after basic training. This environment provides a unique window of opportunity to foster adaptive and strategic skills among young Service members. By offering REPS, the Department aims to integrate suicide prevention into the values, culture, leadership, and work of new Service members and their instructors.

### **Identifying and Supporting People at Risk**

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*DSSP Goal 1: Integrate and coordinate suicide prevention activities across the Department of Defense.*

*DSSP Goal 2: Implement research-informed communication efforts within the Department of Defense that prevent suicide by changing knowledge, attitudes, and behaviors.*

*DSSP Goal 3: Educate military community on the protective factors against suicide that also promote resilience and recovery in the Department of Defense.*

*DSSP Goal 5: Develop, implement, and monitor effective Department of Defense programs that promote resilience, and prevent suicide and related behaviors.*

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The military is built on a culture of connection among Service members. Service members train to learn the importance of the team and taking care of the Service member to their left and right. Recognizing the important role of the unit and community, the Department has on-going efforts focused on peer and leader interventions, as well as new pilot initiatives underway.

#### *Service Member Gatekeeper and Leadership Interventions: On-Going Effort*

Recognizing the important role of an individual’s immediate network to detect warning signs or concerning changes in behavior, each military Service has modified and implemented the *Question, Persuade, Refer (QPR)* framework as part of its suicide prevention training program to empower Service members to act as “gatekeepers.”<sup>39</sup> The Service variations on the QPR framework (Examples: Army: Ask, Care, Escort (ACE); Navy: Ask, Care, Treat (ACT); Marine Corps: Recognize, Ask, Care, Escort (RACE)) are based on their Service culture and needs. All

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<sup>39</sup> The Suicide Prevention Resource Center (SPRC) designated this as a “program with evidence of effectiveness” based on its inclusion in SAMHSA’s National Registry of Evidence-Based Programs and Practices (NREPP). Information about the QPR Gatekeeper Training for Suicide Prevention is available on SPRC website: <https://www.sprc.org/resources-programs/qpr-gatekeeper-training-suicide-prevention>

Services emphasize the importance of teaching Service members and gatekeepers to recognize the warning signs of suicide, react in a non-judgmental way, ask the Service member in trouble if he or she is suicidal, and refer the Service member to a helping professional trained in suicide crisis intervention.

#### *Recognizing the Signs of Intent to Die by Suicide on Social Media Training Pilot*

Use of social networking sites comprise the single most popular online activity, with more than 3.4 billion active social media users worldwide spending 27 percent of every year, or over 6 hours a day, of their time.<sup>40</sup> Additionally, 88% of American 18-29 year olds use social media (Pew Research Center, 2019). To reach the online community, specifically young Service members that may see different aspects of an individual's life, the Department has recently developed a training video about social media indications that may precede suicide ideation and behavior. The training video will educate individuals about the emergence of warning signs of suicide on social media, as well as the constructive steps to take to intervene in a crisis and refer to appropriate care, including an understanding of why individuals should or should not take specific actions. A Department-funded study that identified patterns of social and behavioral risks on social media platforms preceding suicide provides the research base for this training (Bryan et al., 2018). The pilot and evaluation of the training video will be completed in CY 2020.

#### *Cognitive Behavior Strategies for the Prevention of Suicide Training Pilot*

This pilot will develop and evaluate a manual-based training program to teach military chaplains cognitive behavioral strategies aimed at reducing suicide risk. The project will enhance existing suicide prevention efforts by systematically producing an evidence-informed cognitive behavioral suicide prevention guide that is culturally adapted for use by military chaplains and assistants. The findings will inform the Department about ways in which to maximize the role of chaplains as gatekeepers, trainers, and individuals ready and capable to assist effectively and competently with Service members at risk for suicide. The training pilot began in CY 2019 and is currently being adapted for online use.

#### *Suicide Prevention and Readiness for the National Guard (SPRING)*

The SPRING project, started in 2019, provides core programmatic and analytics support for the Warrior Resilience and Fitness Program. Advanced analytics are used to examine protective factors, risks, and promising practices related to suicide and readiness in the National Guard. SPRING utilizes the Total Force Fitness (TFF) framework and readiness model to inform a data-driven and holistic approach for data collection and analysis. A systematic approach is also used to gather evidence-informed and programmatic data, which are assessed to identify gaps and important areas of need. Finally, the project applies advanced analytics to develop tools that further analyze data to inform solutions, working towards the optimization of resources and initiatives that enhance psychological fitness and improve readiness in the National Guard.

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<sup>40</sup> Digital Report 2019. <https://datareportal.com/library>

## Lessening Harms and Preventing Future Risk

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*DSSP Goal 4: Encourage responsible media reporting and portrayals of military community suicide and mental illnesses and promote the accuracy and safety of online content related to suicides in the Department.*

*DSSP Goal 10: Provide support and quality services for those in the military community affected by suicide deaths and attempts and implement community-wide postvention strategies to help prevent subsequent suicides.*

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Recent research has indicated that about 135 people may be exposed to one death by suicide (Cerel et al., 2019). Over and above the impact of bereavement by other causes, exposure to suicide of a relative or friend increases the risk for depression, death by suicide, and/or hospital admissions (Cerel et al., 2016; Harrington-LaMorie, Jordan, Ruocco, & Cerel, 2018; Pitman, Osborn, King, & Erlangsen, 2014). Hence, it is important to have an effective response to the death by suicide that encompasses the entire community to prevent further harm. Suicide postvention is described in the literature as a combination of services designed to reduce the distress and impact of suicide death among survivors of the loss (Aguirre & Slater, 2010). Additionally, media reporting on suicide can have an impact on suicide contagion (Ferguson, 2018). The Department has several efforts underway to lessen these potential harms and prevent future risk.

### *Suicide Postvention Toolkit*

The Department is developing a comprehensive, evidence-informed resource guide for DoD postvention providers (e.g., commanding officers, chaplains, casualty assistance officers, Suicide Prevention Program Managers, military first responders, mental health professionals) regarding best practices for delivery of bereavement and postvention services to unit members and next of kin who survive a military suicide loss. This postvention guide was created based on findings from a Department-funded research study (Ho et al., 2018) and inputs of key internal and external Departmental stakeholders, including the Tragedy Assistance Program for Survivors. This toolkit is slated to be completed in CY 2019.

### *Safe Messaging and Reporting on Military Suicide*

Media reporting of suicide can lead to imitating suicide-related behavior (Stack, 2000). Media portrayals of DoD suicide events may influence suicide behavior, stigma, and perceptions of suicide among members of the military. The World Health Organization (WHO), in partnership with the International Association for Suicide Prevention (IASP), released a resource for media professionals about how to report on suicide (2008). The aim of this DoD safe messaging and reporting project, which began in CY 2019, is to determine how well the WHO guidelines are followed for media reporting of DoD suicide events. This project will inform the Department on any necessary training, education, or engagements needed with DoD Public Affairs Officers, military senior leaders, and/or media sources. Increases in responsible reporting can educate the

military community and the public about suicide and encourage those at risk of suicide to seek help.

### **Evaluating Programs and Assessing Effectiveness**

Based on the goals and objectives of the DSSP, and specific guidance provided by the SPGOSC, the Department is focused on fully implementing and evaluating a multi-faceted public health approach to suicide prevention. The Department has already implemented a number of suicide prevention policies, initiatives, and resources. Further, as scientific research surrounding the prevention of suicide is both complex and ever-evolving, the Department has also recently launched several evidence-informed pilots aligned with the DSSP and the aforementioned seven broad, evidence-informed strategies (as described earlier in this section). This work directly contributes to the accomplishment of DSSP Goals 11, 12, and 13 (below).

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*DSSP Goal 11: Improve the timeliness and usefulness of Department of Defense surveillance systems relevant to suicide prevention, and improve the ability to collect, analyze, and use this information for improving Department suicide prevention efforts.*

*DSSP Goal 12: Promote and support Department of Defense research on suicide prevention.*

*DSSP Goal 13: Evaluate the impact and effectiveness of Department of Defense suicide prevention interventions and systems in order to synthesize and disseminate the findings.*

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To evaluate the effectiveness of the Department's non-clinical suicide prevention initiatives, including both current efforts and new pilot initiatives, the Department, in collaboration with the Military Services, developed a program evaluation framework that maps the goals, objectives, and initiatives articulated in the DSSP to measurable outcomes, employing two types of outcomes to measure progress and effectiveness. The first set are distal outcomes, to include reduction in suicide deaths and attempts. Reductions in these behaviors constitute the ultimate indicators for success; however, achieving a reduction in these behaviors requires a coordinated implementation of multiple suicide prevention initiatives and activities over a long period of time. For a more immediate understanding of the effectiveness of non-clinical suicide prevention initiatives, the Department also developed proximal outcomes, such as improving safe communication and reporting practices about suicide, increasing help-seeking behaviors, and reducing perceived barriers to care. These proximal outcomes address the different risk factors (e.g., individual and environmental factors that make suicide more likely to occur) and protective factors (e.g., individual and environmental factors that buffer the risk for suicide). Positive changes in proximal outcomes are expected to lead to decreases in distal outcomes, which is the reduction of suicide deaths and attempts. The Department will leverage the data from this report and will continuously monitor suicide data of Service members and their family members and evaluate the effectiveness of on-going

efforts and new pilot initiatives in combatting suicide in the DoD. Baseline data on Departmental non-clinical suicide prevention evaluation efforts are expected in CY 2020.

## **Conclusion**

The Department is strongly committed to preventing suicides among Service members and their families. Suicide is the culmination of complex interactions among biological, social, and psychological factors operating at individual, community, and societal levels. As a Department, we have made strides in establishing an infrastructure for preventing military suicide by: aligning our strategy with the public health approach; establishing policy guidance and an enterprise-wide governance body; standardizing and advancing data surveillance, research, clinical interventions, and program evaluation; and partnering and engaging with other federal, non-profit, and private organizations. We have more work to do, and much more progress to make.

This first-ever ASR is reflective of the Department's efforts to increase transparency and frequency of reporting with respect to military suicides. This increased transparency and accountability will strengthen our program oversight and policies. This ASR also marks the first time the Department has reported on military family member suicides. The Department will continue to work to effectively capture military family suicide deaths and report these data in a transparent and timely manner, reporting on these data each year. Once data has been gathered for a sufficient number of years to enable trend identification, the Department will target efforts to identifying key trends for our military family members.

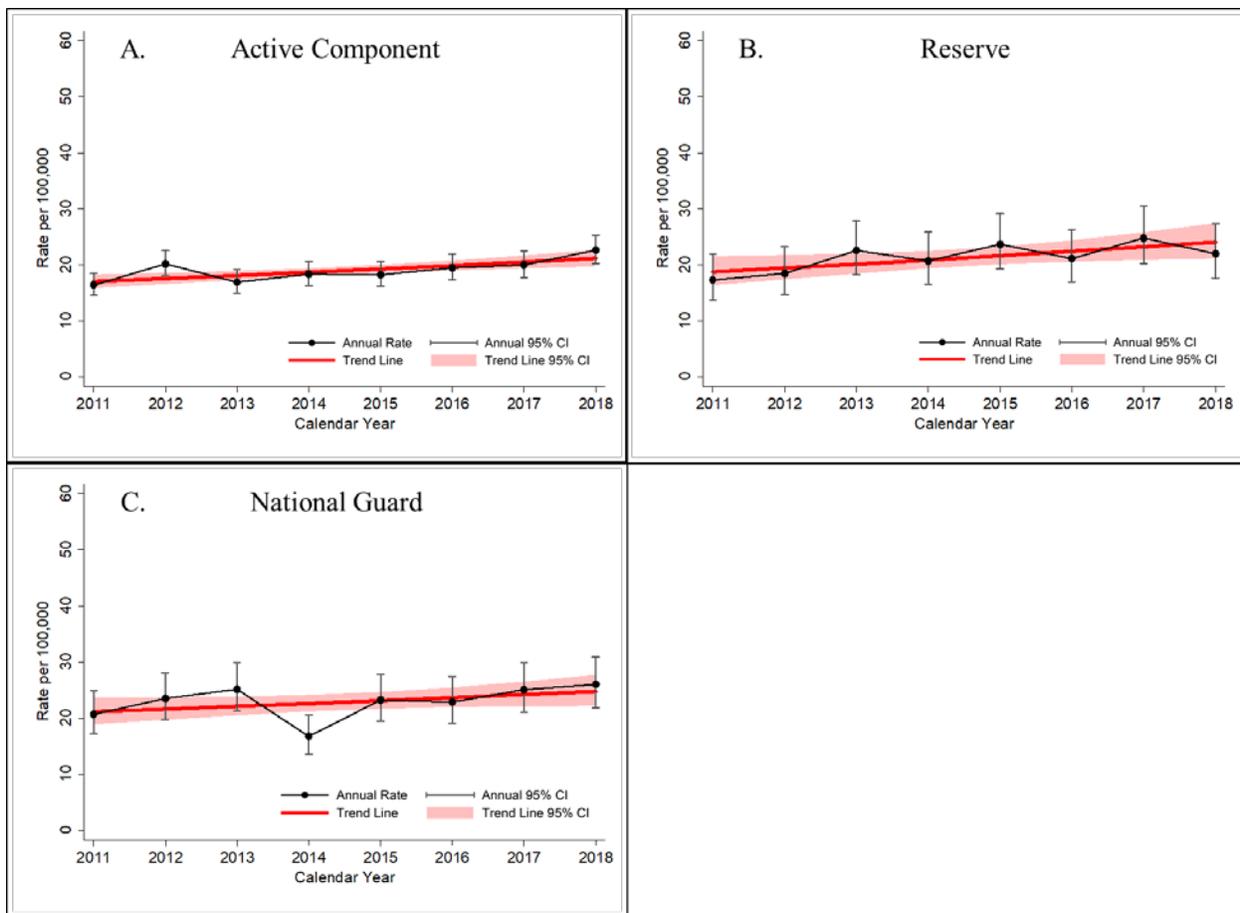
The DoD is deeply committed to ensuring the health, safety, and well-being of our Service members and their families. The Department recognizes the importance of educating both our Service members and their families on suicide risk factors, as well as on ways to promote healthy environments and wellness, and reduce the overall risk factors for suicide, such as relationship issues and periods of transition. The Department is also focused on reducing barriers to care and the associated perceived stigma, and increasing help-seeking, among our military community. Moving forward, the Department will continue to fully implement and evaluate a comprehensive, multi-faceted public health approach to suicide prevention, as well as pilot new evidence-informed practices gathered from the ever-evolving science on suicide prevention, to prevent suicides among our Service members and military families.

# Appendix A: Suicide Rates CY 2011-2018

## Suicide Mortality Rates Over Time

According to the Defense Health Agency (DHA) Psychological Health Center of Excellence (PHCoE), the age- and sex-adjusted suicide mortality rates for the Active Component and Reserve demonstrated statistically significant increases in the linear trend analysis from CY 2011-2018 (Figure A1).<sup>41</sup> The annual suicide mortality rates for the National Guard did not show evidence of a linear increase from CY 2011-2018. These suicide mortality rates were adjusted for age and sex.

**Figure A1.** Adjusted annual suicide mortality rates for the Active Component, Reserve, and National Guard, CY 2011-2018<sup>1-3</sup>

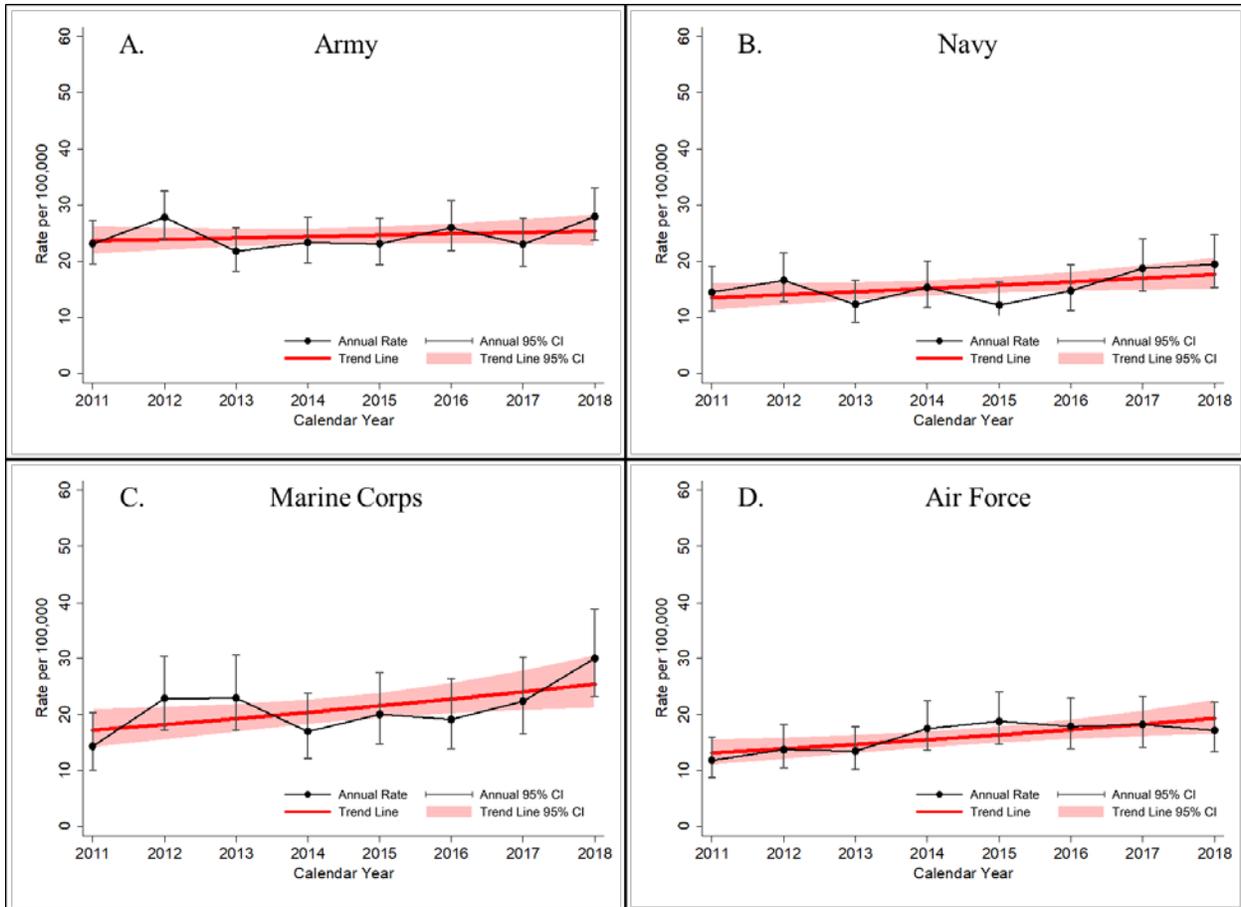


1. Source(s): Graphics provided by PHCoE; data obtained from AFMES.
2. Note: CI = Confidence Interval. All rates are adjusted for age and sex.
3. The three-year moving average for each year with an estimate is the average of the rate for that CY, the previous CY, and the following CY.

<sup>41</sup> Note that statistically significant trends may shift depending on the time frame selected for analysis.

There were statistically significant linear increases in the age- and sex-adjusted suicide mortality rates for the Active Component populations of the Air Force and the Marine Corps from CY 2011-2018. While the Army and the Navy showed increasing slopes for their rates, the changes were not statistically significant over this timeframe. The changes over time in the annual suicide mortality rates for the Active Component populations of the Army, Navy, Marine Corps, and Air Force are displayed in **Figure A2**.

**Figure A2.** Adjusted annual suicide mortality rates for the Active Component, by Service, CY 2011-2018<sup>1-3</sup>

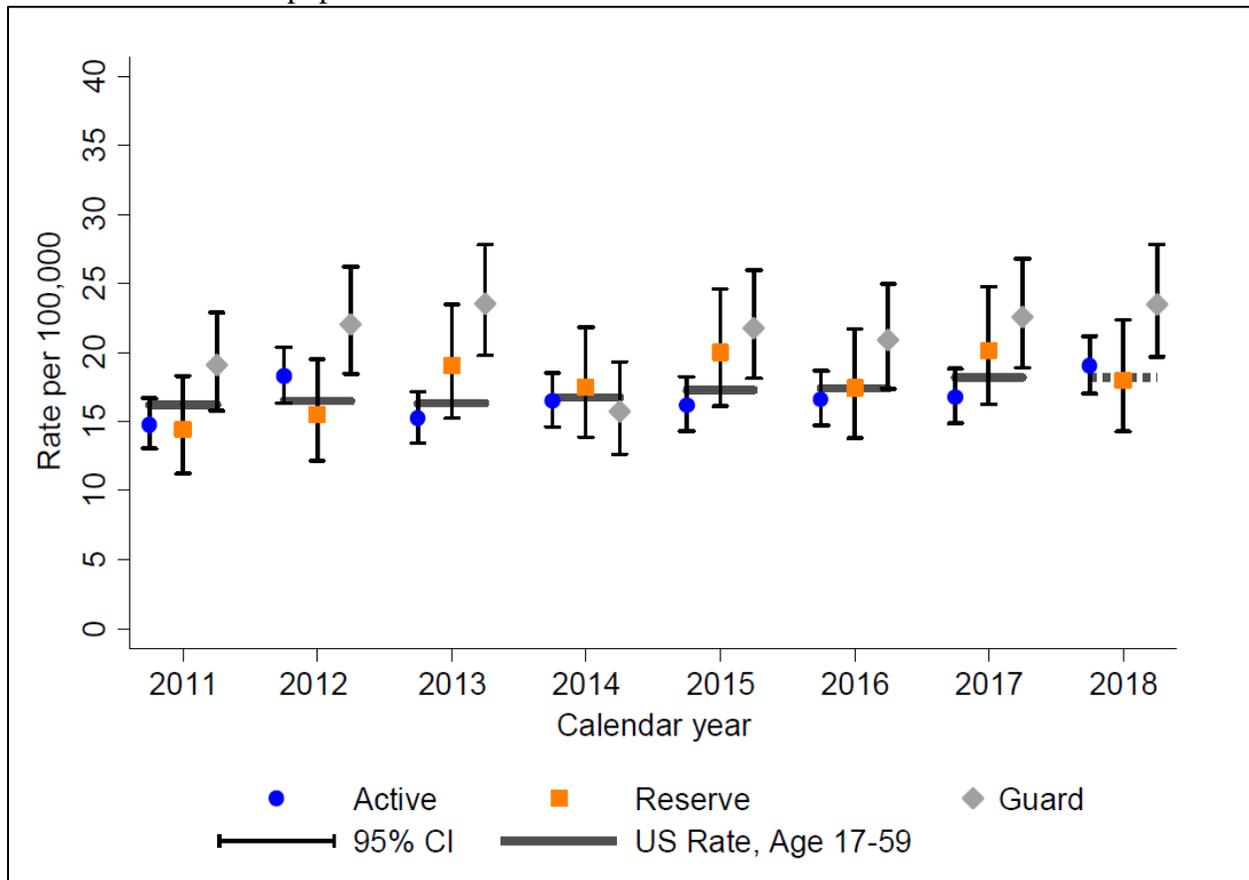


1. Source(s): Graphics provided by PHCoE; data obtained from AFMES.
2. Note: CI = Confidence Interval. All rates are adjusted for age and sex.
3. The three year moving average for each year with an estimate is the average of the rate for that CY, the previous CY, and the following CY.

## Comparison of Military and U.S. General Adult Population Standardized Rates

PHCOE also found that CY 2018 suicide mortality rates for the Active Component and Reserve did not differ from the U.S. adult population suicide mortality rates for CY 2017 (**Figure A3**). This means that the suicide rates for the Active Component and Reserve were consistent with what would be expected given the age and sex composition of the military populations and the age and sex-specific suicide mortality rates of the U.S. adult population. The National Guard had a higher suicide mortality rate than expected from the U.S. adult population data (**Figure A3**).

**Figure A3.** CY 2011-2018 annual suicide mortality rates, by Component, standardized to the CY 2011-2017 U.S. adult population rate data.<sup>1-3</sup>



1. Source(s): Graphics provided by PHCoE; data obtained from AFMES.
2. Note: the U.S. population data include data from civilians, as well as current and former military Service members.
3. For CY 2018, the U.S. population value is repeated from CY 2017, as CY 2017 was the most recent U.S. population data available at the time of this publication.

## Appendix B: Common Suicide Misconceptions

**MISCONCEPTION #1:** The military suicide rate is higher than the U.S. general population.

**FACTS:** The Department is often asked to describe how suicide rates in the DoD compare to those in the U.S. population.<sup>42</sup> In CY 2017, the suicide rate for the U.S. population, ages 17-59, was 18.2 deaths per 100,000 individuals.<sup>43</sup> By comparison, the suicide rate in the military in CY 2017 ranged from 21.9 in the Active Component to 29.8 in the National Guard. On the surface, suicide in the military appears to be markedly higher than the U.S. population—the rate is at least 48% higher depending on Component. Nevertheless, the direct comparison of military suicide rates and the U.S. population is misleading. It is well established that males have nearly four times higher risk of suicide death than females.<sup>44</sup> As the U.S. military is comprised of a higher percentage of males (85%) compared to the U.S. population (49.2%),<sup>45</sup> it is not surprising that the suicide rate is higher in the military. Age is another demographic factor that is associated with suicide risk and also varies substantially between the military and U.S. population. The U.S. military is made up of a higher percentage of younger individuals (mean age = 28.5) than the U.S. population (mean age = 41.3). Given the differences in composition between the U.S. military and general population, any comparison of suicide rates must first account for age and sex. After controlling for differences in age and sex between these populations, **suicide rates are roughly equivalent for all Components, except the National Guard (see Appendix A).**

**MISCONCEPTION #2:** Deployment increases suicide risk among Service members.

**FACTS:** Several studies have shown that **being deployed (including combat experience, length of deployment, and number of deployments) is not associated with suicide risk among Service members.**<sup>46,47</sup> In addition, of active duty Service members who died by suicide in CY 2017, 41.7% had no history of deployment (Pruitt, Smolenski, Tucker, et al., 2019). However, there are some factors related to deployment that may affect suicide risk, such as being repeatedly deployed with six months or less between deployments, or being deployed too soon

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<sup>42</sup> Suicide rates calculated for the U.S. population are often incorrectly cited as “civilian” rates. However, a true “civilian” rate is unable to be accurately calculated at this time, in part, due to difficulties associated with U.S. state and local authorities correctly identifying the military status of deceased individuals. As a result, CDC civilian rates include Service members and Veterans.

<sup>43</sup> Pruitt, L. D., Smolenski, D. J., Bush, N. E., Skopp, N. A., Edwards-Stewart, A. & Hoyt, T.V. (2017). *Department of Defense Suicide Event Report (DoDSER): Calendar Year 2017 Annual Report*. [https://www.pdhealth.mil/sites/default/files/images/docs/DoDSER\\_CY\\_2016\\_Annual\\_Report\\_For\\_Public\\_Release\\_508\\_2.pdf](https://www.pdhealth.mil/sites/default/files/images/docs/DoDSER_CY_2016_Annual_Report_For_Public_Release_508_2.pdf).

<sup>44</sup> Centers for Disease Control and Prevention (CDC). Web-based Injury Statistics Query and Reporting System (WISQARS). Available from <http://www.cdc.gov/injury/wisqars/index.html>. Most recent year data is available is 2017.

<sup>45</sup> U.S. Census Bureau. 2010. Available at <https://www.census.gov/prod/cen2010/briefs/c2010br-03.pdf>

<sup>46</sup> LeardMann, C., Powell, T., Smith, T., Bell, M., Smith, B., Boyko, E., ...Hoge, C. (2012). Risk factors associated with suicide in current and former US military personnel. *JAMA*, 310(5), 496-506.

<sup>47</sup> Reger, M. A., Tucker, R. P., Carter, S. P., & Ammerman, B. A. (2018). Military Deployments and Suicide: A Critical Examination. *Perspectives on Psychological Science*, 13(6), 688–699. <https://doi.org/10.1177/1745691618785366>

after joining the military.<sup>48,49</sup> It is important to note that suicide is complex and there is no single cause for suicide among Service members or the general U.S. population.

**MISCONCEPTION #3:** The majority of Service members who die by suicide had a mental illness.

**FACTS:** Approximately half (54%) of people who died by suicide in the U.S.<sup>50</sup> and **50.8% of military suicide decedents did not have a mental health diagnosis.**<sup>51</sup> Research in both the military, as well as the U.S. population, has refuted the exclusive causal connection between mental illness and suicide. While most people with mental health problems do not attempt or die by suicide, the level of suicide risk associated with different types of mental illness varies.<sup>52</sup> There are other factors such as economic influences, cultural norms, access to lethal means, and media reporting/messaging about suicide that impact suicide rates above and beyond mental illness.<sup>53</sup>

**MISCONCEPTION #4:** If you remove access to one lethal method of suicide, someone at risk for suicide will replace it with another.

**FACTS:** A considerable amount of rigorous research has indicated that when lethal means are made less available or less deadly, suicide rates by that method and rates overall decline.<sup>54</sup> This has been demonstrated in a number of safety improvements: bridge barriers, detoxification of domestic gas and pesticides, medication packaging, and others. Means safety interventions have resulted in a decrease in suicide rates and have demonstrated more potential for reducing suicides than clinical interventions.<sup>55</sup> Further, research has debunked the misconception that people substitute methods of suicide. **If access to the most lethal means of suicide is limited, other means are not substituted.**<sup>56,57</sup>

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<sup>48</sup> Bryan, C. J., Griffith, J. E., Pace, B. T., Hinkson, K., Bryan, A. O., Clemans, T. A. and Imel, Z. E. (2015), Combat Exposure and Risk for Suicidal Thoughts and Behaviors Among Military Personnel and Veterans: A Systematic Review and Meta-Analysis. *Suicide Life-Threatening Behavior*, 45: 633-649. doi:10.1111/sltb.12163

<sup>49</sup> Ursano R.J., Kessler R.C., Naifeh J.A., et al. Associations of Time-Related Deployment Variables With Risk of Suicide Attempt Among Soldiers: Results From the Army Study to Assess Risk and Resilience in Servicemembers (Army STARRS). *JAMA Psychiatry*. 2018;75(6):596-604. doi:10.1001/jamapsychiatry.2018.0296

<sup>50</sup> Centers for Disease Control. (2018). *Suicide rising across the US: More than a mental health concern*. Retrieved from <https://www.cdc.gov/vitalsigns/suicide/index.html>

<sup>51</sup> Pruitt, L.D., Smolenski, D.J., Tucker, J., Issa, F., Chodacki, J., McGraw, K., & Kennedy, C.H. (2019). *Department of Defense Suicide Event Report (DoDSEER): Calendar Year 2017 Annual Report*.

<sup>52</sup> Stone, D., Holland, K., Bartholow, B., Crosby, A., Davis, S., & Wilkins, N. (2017). *Preventing suicide: A technical package of policies, programs, and practices*. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.

<sup>53</sup> Anestis, M., & Houtsma, C. (2017). The association between gun ownership and statewide overall suicide rates. *Suicide and Life-Threatening Behavior*, 48(2), 204-217. <https://doi.org/10.1111/sltb.12346>

<sup>54</sup> Bowles, J. R., (1995). Suicide in Western Samoa: An example of a suicide prevention program in a developing country. In R.F.W. Diekstra, W. Gulbinat, I. Kienhorst, & D. de Leo. (Eds.), *Preventative strategies on suicide (173-206)*. Leiden (Netherlands): E. J. Brill.

<sup>55</sup> Harvard T. H. Chan School of Public Health. (n.d.). *Means Matter Website*. <http://www.hsph.harvard.edu/means-matter>.

<sup>56</sup> Owens, D., Horrocks, J., & House, A. (2002). Fatal and non-fatal repetition of self-harm: Systematic review. *British Journal of Psychiatry*, 18(3), 193-199. <https://doi.org/10.1192/bjp.181.3.193>

<sup>57</sup> Barber, C.W., & Miller, M.J. (2014). Reducing a suicidal person's access to lethal means of suicide: A research agenda. *American Journal of Preventive Medicine*, 47(3), S264-S272.

**MISCONCEPTION #5:** Talking about suicide will lead to and encourage suicide.

**FACTS: Talking about suicide will not lead to suicide.**<sup>58</sup> It does not give someone the idea of suicide, nor does it encourage someone to act on those thoughts. There is a widespread stigma associated with suicide, which may lead people to be afraid to speak about it.<sup>59</sup> Talking about suicide not only reduces the stigma, but also allows individuals to seek help, rethink their opinions, and share their story with others. Most people who attempt or die by suicide have communicated their distress or plans to at least one person.<sup>60</sup> Talking about suicide with a person gives them an opportunity to express thoughts and feelings about something they may have been keeping secret, as well as obtain help and support as needed.<sup>58, 61</sup>

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<sup>58</sup> Dazzi, T., Gribble, R., Wessely, S., & Fear, N.T. (2014). Does asking about suicide and related behaviours induce suicidal ideation? What is the evidence? *Psychological Medicine*, 44(16), 3361–3363. <https://doi.org/10.1017/S0033291714001299>

<sup>59</sup> Tadros, G., & Jolley, D. (2001). The stigma of suicide. *British Journal of Psychiatry*, 179(2), 178-178. <https://doi.org/10.1192/bjp.179.2.178>

<sup>60</sup> Ramchand, R., Franklin, E., Thornton, E., Deland, S., & Rouse, J. (2017). Opportunities to intervene? “Warning signs” for suicide in the days before dying. *Death Studies*, 41(6), 368-375. <https://doi.org/10.1080/07481187.2017.1284956>

<sup>61</sup> Anestis, M.D., & Green, B.A. (2015). The impact of varying levels of confidentiality on disclosure of suicidal thoughts in a sample of United States National Guard personnel. *Journal of Clinical Psychology*, 71(10), 1023-30. <https://doi.org/10.1002/jclp.22198>

## **Appendix C: Acronyms and Abbreviations**

AFMES – Armed Forces Medical Examiner System  
ASR – Annual Suicide Report  
CDC – Centers for Disease Control and Prevention  
CY – Calendar Year  
DEERS – Defense Eligibility Enrollment Reporting System  
DHA – Defense Health Agency  
DMDC – Defense Manpower Data Center  
DoD – Department of Defense  
DoDI – Department of Defense Instruction  
DoDSER – Department of Defense Suicide Event Report  
DSPO – Defense Suicide Prevention Office  
DSSP – Department of Defense Strategy for Suicide Prevention  
FY – Fiscal Year  
MTF – Military Treatment Facility  
NDAA – National Defense Authorization Act  
NDI – National Death Index  
NGB – National Guard Bureau  
NSSP – National Strategy for Suicide Prevention  
PFC – Personal Financial Counselor  
PFM – Personal Financial Manager  
PHCoE – Psychological Health Center of Excellence  
QPR – Question, Persuade, Refer  
REACH – Resources Exist and Can Help  
REPS – Rational Thinking –Emotion Regulation -Problem-Solving  
SPARRC – Suicide Prevention and Risk Reduction Committee  
SPGOSC – Suicide Prevention General Officer Steering Committee  
SPRING – Suicide Prevention and Readiness for the National Guard  
TFF – Total Force Fitness  
USD (P&R) – Under Secretary of Defense for Personnel and Readiness  
USUHS – Uniformed Services University of the Health Sciences  
VA – The Department of Veterans Affairs  
WISQARS – Web-Based Injury Statistics Query and Reporting System

## Appendix D: Terms and Definitions

**Active Component:** Per the Office of the Deputy Chief Management Officer, the Active Component is, “the portion of the armed forces as identified in annual authorization acts as ‘active forces,’ and in section 115 of Title 10 USC as those active duty personnel paid from funds appropriated for active duty personnel.”

**Active Duty (AD):** Full-time duty in the active military service of the United States. Such term includes full-time training duty, annual training duty, and attendance, while in the active military service, at a school designated as a service school by law or by the Secretary of the military department concerned. Active duty is prescribed by Title 10 U.S. Code.

**Armed Forces Medical Examiner System:** The system within the Defense Health Agency that provides worldwide comprehensive medico-legal services and investigations, as well as tracks all deaths subject to its jurisdiction (active duty status deaths; see Active Duty), their determination, and other relevant information.

**Contagion:** A phenomenon whereby susceptible persons are influenced toward suicidal behavior through knowledge of another person’s suicidal acts. Closeness to an individual, group, or individuals within a specific organization may increase the risk of contagion.

**Death by Suicide:** Synonymous with a manner of death classification of suicide.

**Defense Eligibility Enrollment System (DEERS):** A computerized database of military sponsors (active duty, retired, or member of the Reserve Component) and their eligible family members. DEERS registration is required for certain military benefits including TRICARE.

**DoDSER Annual Report:** This report is the Department’s official source for DoDSER suicide and suicide attempt data (e.g., including medical and behavioral health factors, military-related factors, psychosocial and lifestyle stressors). This report includes longitudinal suicide trends in the DoD (beginning in 2011 to current year). It seeks to enhance the Department’s understanding of suicidal behavior as well as further inform future research, program development, and policy efforts.

**Evidence-based:** A conclusion based on rigorous research that has demonstrated effectiveness in achieving the outcomes that it is designed to achieve.

**Fiscal Year (FY):** Begins October 1 and ends September 30 each year.

**Gatekeeper:** Can include anyone who is strategically positioned to recognize and refer someone at risk of suicide (e.g., parents, friends, neighbors, teachers, coaches, caseworkers, police officers) to care.

**Intervention:** A strategy or approach that is intended to prevent an outcome or alter the course of an existing challenge or stress; also known as “secondary prevention.”

**Manner of Death:** The legal classification of death. There are five manners of death: suicide, homicide, accident, natural, and undetermined.

**Means:** How the injury was inflicted (i.e., how the person was hurt). The classification by mechanism characterizes the external agents or particular activities that caused the injury (e.g., motor vehicle, firearm, submersion, fall, and poisoning).

**Means Safety:** Programs and policies aimed at making lethal means less available or safer and thereby reducing the overall lethality of suicide attempts.

**Mental Health:** The capacity of individuals to interact with one another and the environment in ways that promote subjective well-being, optimal development, and use of mental abilities (cognitive, affective, and relational).

**Mental Illness:** A diagnosable illness characterized by alterations in thinking, mood, or behavior (or some combination thereof) associated with distress that significantly interferes with an individual's cognitive, emotional, or social abilities.

**Military Community:** A broad term, equivalent to 'the community' in the 2012 National Strategy for Suicide Prevention ecological model, designed to capture applicable members of the Total Force and military family members, as well as to describe the general surroundings in which they live and work (e.g., unit, base, station).

**Military Family Members (or Military Dependents):** Military Family Members (also known as Military Dependents) are those who are sponsored by the Military Service member, are enrolled in the Defense Eligibility Enrollment System (DEERS), and meet the requirement for a military dependent as defined by Title 10 U.S. Code Section 1072 (2).

**Military Treatment Facility (MTF):** A military hospital or clinic on or near a military base.

**National Death Index (NDI):** The NDI is a centralized database of death record information on file in state vital statistics offices. The CDC's National Center for Health Statistics works with state offices to establish the NDI as a resource to aid epidemiologists and other health and medical investigators with their mortality ascertainment activities. In this report, the NDI was used to supplement DoD data sources in the identification of family member suicides.

**Postvention:** Response activities that should be undertaken in the immediate aftermath of a suicide that has impacted the unit and family. Postvention has two purposes: to help suicide attempt survivors cope with their grief and to prevent additional suicides. It also may provide an opportunity to disseminate accurate information about suicide, encourage help-seeking behavior, and provide messages of resilience, hope, and healing. Also known as "tertiary prevention."

**Prevention:** A strategy or approach that reduces the risk or delays the onset of adverse health problems, or reduces the likelihood that an individual will engage in harmful behaviors. Also known as "primary prevention."

**Protective Factors:** Skills, strengths, or resources that help people deal more effectively with stressful events. Protective factors enhance resilience and help to counterbalance risk factors. Protective factors may be personal (e.g., attitudes, values, and norms prohibiting suicide) or external or environmental (e.g., strong relationships, particularly with family members).

**Reserve Component:** The Armed Forces of the United States Reserve Component consists of the Army National Guard of the United States, Army Reserve, Navy Reserve, Marine Corps Reserve, Air National Guard, Air Force Reserve, and the Coast Guard Reserve.

**Resilience:** The ability to withstand, recover, and grow in the face of stressors and changing demands.

**Risk Factors:** Factors caused by stress, trauma, or other circumstances that cause a schism in protective factors. Factors that make it more likely those individuals will develop a disorder or pre-dispose one to high-risk for self-injurious behaviors. Risk factors may encompass biological, psychological, or social factors in the individual, family, and environment.

**Safety Plan:** Written list of warning signs, coping responses, and support sources that an individual may use to avert or manage a suicide crisis.

**Screening:** Administration of an assessment tool to identify persons in need of more in-depth evaluation or treatment.

**Screening Tools:** Instruments and techniques (e.g., questionnaires, checklists, and self-assessment forms) used to evaluate individuals for increased risk of certain health problems.

**Selected Reserve (SELRES):** Drilling and training members of the National Guard and Reserves, Individual Mobilization Augmentees, and full-time support Active Guard and Reservists. This excludes members of the Individual Ready Reserve (IRR) and Inactive National Guard (ING).

**Service Member:** A person appointed, enlisted, or inducted into a branch of the military services, including Reserve Components (e.g., National Guard), cadets, or midshipmen of the military service academies.

**Stigma:** Negative perception by individuals that seeking mental health care or other supportive services will negatively affect or end their careers.

**Suicidal Behaviors:** Behaviors related to suicide, including preparatory acts, as well as suicide attempts and deaths.

**Suicide Ideation:** Thinking about, considering, or planning suicide.

**Suicide:** Death caused by self-directed injurious behavior with an intent to die as a result of the behavior.

**Suicide Attempt:** A non-fatal, self-directed, potentially injurious behavior with an intent to die as a result of the behavior; might not result in injury.

**Suicide Crisis:** A suicide crisis, or potential suicide, is a situation in which a person is attempting to kill him or herself or is seriously contemplating or planning to do so. It is considered a medical emergency, requiring immediate suicide intervention and emergency medical treatment.

#### **Suicide Event Status (Pending and Confirmed)**

- **Pending Suicide:** A designation by AFME as the manner of death when the circumstances are consistent with suicide, but the determination is not yet final. Final determination may take many months. Importantly, pending (also known as suspected) suicides are included by DSPO and AFMES when reporting suicide counts.
- **Confirmed Suicide:** A designation by AFME when assigning suicide as the final determination of the manner of death.

**Suicide Rate:** The average number of deaths by suicide in a fixed population per unit of time. As suicide is relatively rare, the suicide rate is commonly standardized to deaths per 100,000 persons per year. A suicide rate is calculated by dividing the number of deaths by suicide in the unit of time (in DoD, typically a calendar year) by the exposed population (in DoD, the average of 12 monthly end-strengths).

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