

DEPARTMENT OF DEFENSE UNDER SECRETARY OF DEFENSE FOR PERSONNEL AND READINESS

# ANNUAL SUICIDE REPORT

**CALENDAR YEAR 2019** 

The estimated cost of this report or study for the Department of Defense is approximately \$1,406,000 for the 2020 Fiscal Year. This includes \$1,054,000 in expenses and \$352,000 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, including members of the 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 support for all Service members and Veterans, even if they are not registered with the Department of Veterans Affairs (VA) or enrolled in VA health care. Service members, 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 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
  - o In Afghanistan: Call 00 1 800 273 8255 or DSN 111
  - Crisis chat support is available internationally at <u>https://www.veteranscrisisline.net/get-help/chat</u>
- In an emergency, dial 911 or your local emergency number immediately. An emergency is any situation that requires immediate assistance from the police, fire department, or an ambulance. Contact information:
  - Phone: 911
  - Web: <u>https://www.911.gov/</u>

# **Table of Contents**

Executive Summary	
Introduction	8
Service Member Suicide Data	9
Military Family Suicide Data	19
Current and Future Departmental Efforts	24
Conclusion	33
Appendix A: Section 741, National Defense Authorization Act (NDAA) for FY 2020 Requirement	nts . 34
Appendix B: Common Suicide Misconceptions	35
Appendix C: Example DoD Initiatives Aligned with the Seven Broad Suicide Prevention Strateg	gies 39
Appendix D: Chaplains and Other Spiritual Resources	45
Appendix E: Program Evaluation	48
Appendix F: Research Collaborations & Data Sharing	54
Appendix G: Acronyms and Abbreviations	65
Appendix H: Terms and Definitions	67
References	71



# WHAT IS THE ANNUAL SUICIDE REPORT?

Effective January 1, 2019, the DoD Annual Suicide Report (ASR) serves as the official source for annual suicide counts and unadjusted rates for 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 (DODSER) ANNUAL PUBLICATION?

The ASR provides the official annual DoD suicide rates to the public, and 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 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 DoD.

# **Executive Summary**

The Department of Defense (DoD) is committed to preventing suicide and reducing stigma for seeking help within our military community, recognizing and valuing the diversity and talent each member contributes to our mission. We owe this to our Service members and families defending our Nation.

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 DoD and a means by which to increase transparency and accountability for DoD efforts toward the prevention of suicide.

This ASR provides an update on the Department's efforts to combat suicide, presents recent suicide data on Service members and to the extent available, their families, and describes ongoing and future initiatives – including recent program evaluation, data sharing, and collaborative research efforts. This report also meets requirements of Section 741 of the National Defense Authorization Act (NDAA) of Fiscal Year (FY) 2020 (Public Law 116-92) as noted in **Appendix A**.

## Actions Taken Since CY 2018 ASR

Since last year's first-ever ASR, the Department has made progress in developing and fielding programs targeting the populations of greatest concern identified in the CY 2018 ASR findings – young and enlisted members and National Guard members – as well as supporting our military families. Example actions taken include:

Increase Skills for Young and Enlisted Service Members:

Developed and initiated pilot of an interactive educational program to teach foundational skills to deal with life stressors early in military careers, particularly those unique to young, enlisted members. Conducted Service member focus groups to refine the curriculum.

Developed video training for Service members on how to recognize and respond to suicide warning signs on social media. The video – "Simple Things Save Lives" – is currently being evaluated before broader implementation across the DoD.

## Support National Guard Through Enhanced Counseling Access:

Developed a partnership with the Department of Veterans Affairs to provide greater access to behavioral health services for National Guard members and their families, to include services provided during training periods. The initiative, which began in CY 2019, has seen an increase in National Guard members receiving services during drill weekends (14%) and at RCS Vet Center locations (44%), compared to last year.

### WHAT WE FOUND IN CY19

- 1. Military suicide rates for Active Component, Reserve, and National Guard are comparable or lower than the U.S. population, after accounting for age and sex.
- 2. Active Component suicide rate is comparable from CY 2017 to CY 2019, but not going in the desired direction. The CY 2019 Reserve and National Guard suicide rates are statistically lower than CY 2017.
- 3. The Active Component suicide rate statistically increased from CY 2014 to CY 2019, whereas Reserve and National Guard suicide rates did not show evidence of an increase or decrease over the same time period.
- 4. Service member decedents are primarily enlisted, male, and under 30 years of age.
- 5. Suicide rates for military spouses and dependents in CY 2018 were statistically consistent with CY 2017, and were comparable or lower than U.S. population rates after accounting for age and sex, with the exception of male spouses.
- 6. Firearms were the primary method of suicide death for Service members and family members.

## WAY FORWARD

The Department will focus efforts to our young and enlisted members, continue to support our military families, as well as track progress, assess program effectiveness, and enhance research, data, and evaluation capabilities.

## Support Military Families:

Trained more than 2,000 non-medical military providers to provide Counseling on Access to Lethal Means (CALM) to Service members and families to increase awareness of risk factors for suicide, safe storage of lethal means (i.e., firearms and medications), and how to intervene in a crisis. Over 90% of counselors who completed the pre- and post-training test, experienced increased knowledge and counseling skills.

Published the Postvention Toolkit, a guide to providing safe bereavement support to families and Service members affected by suicide, to increase resilience and awareness of support resources.

### Better Measure Program Effectiveness:

The Department, in collaboration with the Military Services, integrated the seven broad, evidence-informed strategies for suicide prevention from the Centers for Disease Control and Prevention (CDC) into its program evaluation framework. The Department collected and analyzed baseline data to serve as a starting point to assess progress and measure effectiveness.

## Key CY 2019 Findings:

Service Members: In CY 2019, 498 members died by suicide.

Military suicide rates are comparable with the U.S. adult population, after accounting for age and sex, for Active Component and National Guard, and lower for the Reserve. The most recent U.S. population suicide data available is for CY 2018. At first, the military suicide rate appears to be higher than the U.S. population. However, the military and U.S. populations vary considerably by age and sex – two factors associated with suicide risk. After controlling for these differences, CY 2019 Active Component and National Guard rates were comparable to the U.S. population rates, while the Reserve rate is lower.

While the CY 2019 suicide rates for the Active Component appear higher, they are statistically comparable across the past two years, but are not going in the desired direction. The CY 2019 rates were statistically lower than the CY 2017 rates for Reserve and National Guard (as well as with CY 2018 for the National Guard). Forthcoming years of data are necessary to determine if these are sustained trends.

The Active Component suicide rate statistically increased from CY 2014 to CY 2019, while the Reserve and National Guard suicide rates did not show evidence of an increase or decrease (i.e., no change) over this time period. From CY 2014 to CY 2019, the suicide rate for the Active Component increased from 20.4 to 25.9 suicides per 100,000 Service members. This is attributable to a rise in the rate of suicide deaths across all Services. The Reserve and National Guard suicide rates did not show evidence of a linear increase or decrease from CY 2014 to CY 2019. The CY 2019 suicide rate for the Reserve, across Services and regardless of duty status, was 18.2 suicides per 100,000 Reservists. The suicide rate for the National Guard, across Services and regardless of duty status, was 20.3 suicides per 100,000 National Guard members.

Collectively, this data demonstrates DoD has made important strides for the National Guard, with rates now comparable to the U.S. population and down from CY 2017. We are cautiously optimistic, but focused on long-term, sustained improvement for our National Guard members.

**Decedents are primarily enlisted, male, and less than 30 years of age, regardless of military population.** The demographic profile of Service members who died by suicide in CY 2019 was similar across the Active Component, Reserve, and National Guard and, overall, reflective of the profile of the Total Force.<sup>1</sup> Specifically, the greatest proportion of suicide decedents were enlisted (83.1% to 92.7%), less than 30 years old (50.8% to 73.4%), and male (91. 6% to 95.4%), depending on military population (i.e., Active Component, Reserve, or National Guard). Enlisted, males, and those under the age of 30 in the Active Component were at higher risk for suicide compared to the population average. The majority of Service member suicide decedents died by firearm (ranging from 59.6% to 78.7%, across military populations).

<u>Military Families</u>: In CY 2018, 193 military family members died by suicide, according to the most recent data available on military family members.

The CY 2018 military family suicide rates are statistically consistent with the CY 2017 rates. Suicide rates for military spouses and dependents (minor and non-minor) in CY 2018 were comparable or lower than U.S. population rates after accounting for age and sex, with the exception of males spouses. For military spouses, the suicide rate in CY 2018 was 12.1 per 100,000 population. When examined by sex, suicide rates for spouses, ages 18 to 60, were 8.0 (female) and 40.9 (male) per 100,000 population, respectively. After adjusting for differences in age, the CY 2018 female spouse rate was comparable to the suicide rate for females in the U.S. population ages 18 to 60 years, whereas the male spouse rate was statistically higher than for males in the U.S. population ages 18 to 60 years. The overall suicide rate among military dependents (< 23 years of age) was 3.9 per 100,000 dependents. The suicide rate for male military dependents in CY 2018 (5.8 per 100,000 population) was statistically lower than the rate among similar-age (< 23 years) males in the U.S. population. The DoD did not calculate suicide rate for female for female military dependents because of low counts.<sup>2</sup> Firearms were the primary method of suicide death for military spouses and dependents (57.0% and 52.3%, respectively).

## **Ongoing and Future Efforts**

The Department is steadfast in our commitment to the health, safety, and well-being of our military community, which is essential to our Total Force readiness. Guided by the Defense Strategy for Suicide Prevention, DoD embraces a comprehensive public health approach that acknowledges the interplay of individual-, relationship-, and community-level risk factors. The Department's approach also recognizes the need to enhance protective factors to help reduce the suicide risk for all Service members and their families. This approach looks at promoting health and prolonging life through the strength of a connected and educated community that includes medical care and

<sup>&</sup>lt;sup>1</sup> In this report, Total Force includes DoD Active and Reserve Component military personnel. Reserve Component is further limited to members of the Selected Reserve (SELRES).

<sup>&</sup>lt;sup>2</sup> Per DoD Instruction (DoDI) 6490.16, suicide rates are not reported for groups with less than 20 suicides because of statistical instability.

treatment, as well as community-based prevention efforts involving leaders, chaplains, family, peers, and other stakeholders. This report highlights efforts underway aligned with this approach.

Based on the CY 2019 ASR findings, the Active Component suicide rate statistically increased from CY 2014 to CY 2019, with young, enlisted Service members being at highest risk. DoD must target this population of greatest concern and continue to support our military families. Some specific actions being taken include:

<u>Population of Greatest Concern – Young and Enlisted Service Members</u>: To support young and enlisted members, the Department will complete its pilot of an interactive educational program to teach foundational skills to deal with life stressors early in one's military career. New efforts include a pilot interactive training program to address Service members' help-seeking concerns and perceived barriers, and encourage seeking help early on, before life challenges become overwhelming. DoD is also partnering with relevant offices via the newly chartered DoD Prevention Collaboration Forum, including leveraging the Department's first-ever integrated violence prevention policy, which addresses risk and protective factors shared by multiple readiness-detracting behaviors – including suicide – with young and enlisted Service members being a key population of focus. We are also working with stakeholders to leverage the new "988" crisis line, a telephone line created by the Federal Communications Commission to connect individuals in crisis, including the military community, with suicide prevention and mental health counselors. The new number is scheduled to be fully implemented by July 2022.

<u>Support Military Families</u>: To support military families, the Department is expanding on the successful pilot program from last year by continuing to implement training for non-medical providers focused on awareness of suicide risk factors and strategies to reduce access to lethal means (firearms and medications) and increase safe storage. The Department will also pilot this training for others in the military community (e.g., spouses, chaplains, and community counselors), and publish a suite of family safety resources to increase awareness. As an example, the Department is educating middle and high school students in DoD schools on risk factors for suicide and encouraging help-seeking behaviors early on for themselves or others.

<u>Measure Effectiveness</u>: We recognize we must continue to advance and adapt our efforts. We will continue to take a focused approach to program evaluation to assess existing policies and programs, as well as leverage evidence-informed science on suicide prevention. This report provides an overview of our enterprise-wide program evaluation framework and highlights baseline metric results. The VA/DoD Clinical Practice Guidelines and the Joint Commission also serve to ensure high-quality, evidence-based clinical treatment and care for our community. These efforts and others underway will continue to strengthen our understanding of our policies and programs – to identify any gaps and needed modifications. The Department will continue to track progress, measure program effectiveness, and enhance research, data, and evaluation capabilities.

To achieve our goals, we will also continue robust research collaborations, data sharing, outreach, and other key efforts with national and local organizations. This report highlights some of those recent efforts, as well as the DoD Suicide Prevention Research Strategy for FY 2020 - 2030. We will continue to strengthen current alliances and build new strategic collaborations. The Department will not stop until we prevent the risk for suicide and ensure all who need help are able to obtain the support needed.

## Introduction

Every death by suicide is a tragedy and carries a different life story. We know suicide is the culmination of complex interactions among environmental, psychological, biological, and social factors, but suicide is preventable. We also recognize suicide can affect diverse communities differently. As such, we are committed to addressing suicide through an inclusive and comprehensive public health approach to suicide prevention.

Data informs our ability to take meaningful steps forward. This second Annual Suicide Report (ASR) presents recent suicide data on Service members and their families and describes efforts underway to combat suicide in DoD, including Departmental program evaluation and policy review efforts, data sharing, and research collaborations, in order to enhance suicide prevention policies, practices, and programs.

The Department is committed to preventing suicide within the military community, recognizing and valuing the diversity and talent each member contributes to our mission readiness and accomplishments. We will not stop until we prevent the risk for suicide and address stigma for seeking help – along with increasing protective factors through stakeholder and community engagement and collaboration. We owe this to our Service members and military families who do so much to defend our great Nation.

## **Purpose of this Report**

The CY 2019 ASR satisfies reporting requirements established by the Office of the Under Secretary of Defense for Personnel and Readiness, requiring the Defense Suicide Prevention Office (DSPO) to produce an annual report that serves as the official source for annual suicide counts and unadjusted rates for the Department.<sup>3</sup> This report also includes information about the Department's efforts enhancing suicide prevention in the military. This report provides information on available suicide data on military family members per Section 567 of the NDAA for FY 2015 (Public Law 113-291). In addition, this ASR addresses requirements in Section 741 of the NDAA of FY 2020 (Public Law 116-92). **Appendix A** details Section 741 reporting requirements in this report (or in the forthcoming CY 2019 DoDSER Annual Report).

This report was developed in collaboration with the Military Departments, Military Services, National Guard Bureau, Office of the Assistant Secretary of Defense for Manpower and Reserve Affairs, Office of the Assistant Secretary of Defense for Health Affairs, and the Defense Human Resources Activity. The collaborative process is reflective of the Department's multifaceted public health approach to suicide prevention.

This ASR represents the Department's continued efforts to increase transparency and accountability, which we believe 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 military community.

<sup>&</sup>lt;sup>3</sup> Under Secretary of Defense for Personnel and Readiness Memorandum, "Designation of the Defense Suicide Prevention Office as the Official Release Authority of Suicide Data for the Department of Defense," October 30, 2018.

## Service Member Suicide Data

To ensure reliability and comparability of surveillance data, clear and consistent terminology with standardized definitions are required. In 2017, DoD adopted the recommendations by CDC 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," suicide is defined as "death caused by self-directed injurious behavior with an intent to die as a result of the behavior."<sup>4,5,6</sup>

## Suicide Death Reporting in DoD

The Department reports both counts and rates of suicide deaths. Suicide counts are useful for understanding the absolute magnitude of suicide mortality. However, absolute numbers do not account for differences in population size and cannot be used in a meaningful way to compare the number of deaths across groups, or within a single group, over time. Rates account for differences in population sizes and provide commensurable comparisons.<sup>7</sup> In this report, Active Component and Selected Reserve (SELRES) member suicide rates are calculated by the Armed Forces Medical Examiner System (AFMES) in accordance with DoDI 6490.16.<sup>8</sup> The Department reported suicide rates per 100,000 Service members to align with industry standards.<sup>9</sup> This report analyzes and compares both crude and adjusted rates – analyses making comparisons within a group over time or between groups are adjusted for age and sex unless otherwise noted.

## Variability in Suicide Rate Determinations

Per industry standards, this report presents 95% confidence intervals 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>10</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 the range of values covers the true suicide rate. As such, all references to suicide "rate(s)" or "unadjusted rate(s)" in the report are estimates. For comparisons of rates across years, two rates are considered to be statistically different if their 95% confidence intervals do not overlap.<sup>11</sup>

Uniform definitions and recommended data elements, Version 1.0. Atlanta, GA: Centers for Disease Control and Prevention.

<sup>&</sup>lt;sup>4</sup> Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. (2011). Self-directed violence surveillance:

<sup>&</sup>lt;sup>5</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>&</sup>lt;sup>6</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 corners, and vague guidelines and/or operational criteria for determining suicide.

<sup>&</sup>lt;sup>7</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>8</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>&</sup>lt;sup>9</sup> Stone, D. M., Simon, T. R., Fowler, K. A., Kegler, S. R., Yuan, K., Holland, K. M., et al. (2018). Vital signs: Trends in state suicide rates—United States, 1999–2016 and circumstances contributing to suicide—27 states, 2015. *Morbidity and Mortality Weekly Report*, 67(22), 617-624.

<sup>&</sup>lt;sup>10</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>11</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 2019 Service Member Data Summary

**Table 1** shows annual suicide counts and rates (per 100,000 Service members) for the Active Component, Reserve, and National Guard for CY 2017 to CY 2019.<sup>12</sup> Data for CY 2019 include all known or suspected suicides (both confirmed and pending) as of March 31, 2020, for the Active Component, Reserve, and National Guard.<sup>13,14,15</sup> Per DoDI 6490.16, rates are not reported when the number (i.e., count) of suicide deaths is under 20 due to statistical instability.

Table 1.	Annual Suicide	Counts and Rates p	per 100,000 Ser	vice Members by	Military Population
and Servi	ice, CY 2017–CY	Y 2019 <sup>1-2</sup>		-	

Military Population /	CY 2017		CY 2018		CY 2019	
Service	Count	Rate	Count	Rate	Count	Rate
Active Component	287	22.1	326	24.9	344	25.9
Army	116	24.7	141	29.9	142	29.8
Marine Corps	43	23.4	57	30.8	47	25.3
Navy	65	20.1	68	20.7	72	21.5
Air Force	63	19.6	60	18.5	83	25.1
Reserve	93	25.7	81	22.9	65	18.2
Army Reserve	63	32.1	48	25.3	36	18.9
Marine Corps Reserve	10		19		9	
Navy Reserve	9		11		7	
Air Force Reserve	11		3		13	
National Guard	133	29.8	136	30.8	89	20.3
Army National Guard	121	35.5	119	35.6	74	22.3
Air National Guard	12		17		15	

1. Source(s): Armed Forces Medical Examiner System (AFMES).

2. Suicide rates for the SELRES include all Service members irrespective of duty status.

#### CY 2019 Suicide Counts and Rates

There were 498 confirmed or pending suicide deaths for CY 2019 (344 Active Component, 65 Reserve, and 89 National Guard). The CY 2019 suicide rate in the Active Component was 25.9 suicide deaths per 100,000 Service members. Across the Military Services, suicide rates ranged from 21.5 to 29.8 per 100,000 Active Component Service members. For the Reserve and National Guard, the rates were 18.2 and 20.3 suicide deaths per 100,000 Service members, respectively. For the Army Reserve and Army National Guard, the rates were 18.9 and 22.3 suicide deaths per 100,000 Soldiers, respectively.<sup>16</sup> Per DoDI 6490.16, all other Service-specific CY 2019 rates for Reserve and National Guard were not reported due to low counts.

<sup>&</sup>lt;sup>12</sup> These rates are not adjusted for age and sex.

<sup>&</sup>lt;sup>13</sup> DoD considers both confirmed and pending (or suspected) suicide deaths as "suicides" to reduce the potential for underestimating the extent of suicide mortality in DoD.

<sup>&</sup>lt;sup>14</sup> Pending (also known as suspected) suicide is a designation by the Armed Forces Medical Examiner as the manner of death when the circumstances are consistent with suicide, but the determination is not yet final.

<sup>&</sup>lt;sup>15</sup> Service members who are also dependents of other Service members are included in Service member counts and in military family counts reported later in this report.

<sup>&</sup>lt;sup>16</sup> While not included in Table 1, U.S. Coast Guard uniformed members suicide counts are as follows: CY 2017: 7, CY 2018: 6, and CY 2019: 7.

#### Suicide Rates Over Time

This report provides suicide rates for CY 2017 - CY 2019, examines near-term suicide rate changes in that timeframe, and longer-term suicide rate changes for CY 2019 and the preceding five years (CY 2014 to CY 2018) for each military population and by Service. Comparing the CY 2019 suicide rates to the previous two years (near-term) provides preliminary insights to more recent changes and aligns with tenure of commanders and other military leaders who are often directly supporting Service members or contributing to suicide prevention efforts more proximally. However, annual rates are volatile year-to-year and can be imprecise for smaller subpopulations (such as at the Service level), which may miss true underlying change when looking at this smaller window of time. Longer-term (CY 2014 - CY 2019) examination of suicide rates over time allows for more reliable trend analysis compared to the shorter-term look and can aid in examining whether more recent DoD policy or programmatic initiatives are having the desired effect. The Department of Defense Suicide Event Report (DoDSER) Annual Report provides an even longer-term assessment of suicide trends in DoD beginning with CY 2011.

### Active Component: CY 2017 – CY 2019 (Near-Term)

When comparing the CY 2019 suicide rate to each of the recent past two years, the Active Component suicide rate in 2019 (25.9 per 100,000) appears higher than in CY 2017 (22.1 per 100,000) and CY 2018 (24.9 per 100,000), but is statistically comparable across years (i.e., no statistically significant change, <95% confidence). Similarly, when examining suicide rates at the Service level over the past two years, the CY 2019 suicide rates for each Service appear higher compared to their respective rates in CY 2017 (**Table 1**), but did not reach statistical significance (i.e., no statistically significant change, <95% confidence). Compared to CY 2018, the CY 2019 suicide rates appear consistent for the Army, lower for the Marine Corps, and higher for the Navy and Air Force, but were not statistically different for any of the Services (i.e., no statistically significant change, <95% confidence).

Additional and forthcoming years of data are necessary before determining any sustained trends for the Active Component as a whole and for each Service individually. As previously noted, year-to-year rate comparisons provide preliminary insights, but are notably limited in reliably detecting true changes in suicide trends over time, particularly for smaller subpopulations such as at the Service level.

#### Active Component: CY 2014 – CY 2019 (Longer-Term)

The Active Component DoD suicide rate statistically increased between CY 2014 and CY 2019 (**Figure 1**). The increase between CY 2014 and CY 2019 was attributable to an increase in suicide rates across all Services. **Figure 2** (**A**–**D**) provides suicide trends for each Military Service in the Active Component. These figures visually display the year-to-year changes for each Service. Linear trend analysis indicates the Active Component suicide rates increased for all the Services between CY 2014 and CY 2019, but did not reach statistical significance for the Army and the Air Force.<sup>17</sup>

<sup>&</sup>lt;sup>17</sup> Linear trend analysis excludes Absent Without Leave (AWOL) cases included in the CY 2017–2019 counts since the same data are not available for the entire six-year period of the trend analysis (slated for inclusion in future reports).

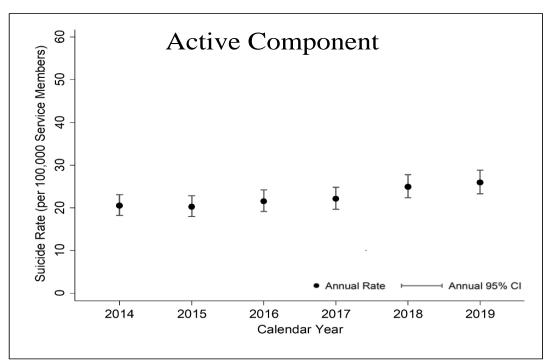
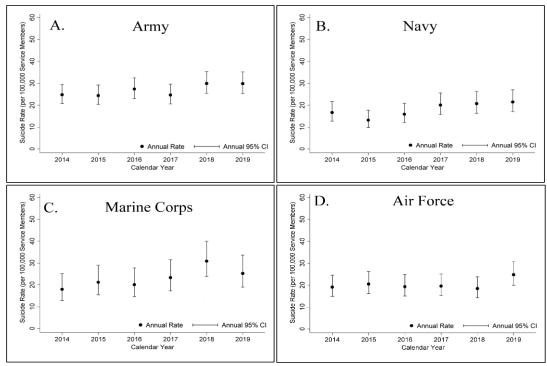


Figure 1. Active Component Suicide Rates per 100,000 Service Members by CY<sup>1-2</sup>

1. Source(s): Linear trend analysis (CY 2014-CY2019) and graphics provided by DoD Psychological Health Center of Excellence (PHCoE), data obtained from AFMES.

2. The 95% confidence interval (indicated by bars) represents the range in which the true suicide rate falls with 95% certainty.

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



1. Source(s): Linear trend analysis (CY 2014-CY2019) and graphics provided by PHCoE; data obtained from AFMES.

2. The 95% confidence interval (indicated by bars) represents the range in which the true suicide rate falls with 95% certainty.

#### Reserve and National Guard: CY 2017 – CY 2019 (Near-Term)

When comparing the CY 2019 suicide rate to each of the prior two years, the Reserve CY 2019 suicide rate (18.2 per 100,000) appears lower compared to CY 2017 (25.7 per 100,000) and CY 2018 (22.9 per 100,000), but only reached statistical significance when comparing to CY 2017. The National Guard CY 2019 suicide rate (20.3 per 100,000) statistically decreased compared to CY 2018 (30.8 per 100,000) and CY 2017 (29.8 per 100,000). When examined by Service, the same trends were observed for the Army Reserve and Army National Guard as described for the Reserve and National Guard, respectively. Rates for the Marine Corps, Navy, and Air Force Reserve, and the Air National Guard are not reported due to low counts.<sup>18</sup> Although the difference between rates in CY 2019 and CY 2017 suggests a decrease in suicide over the near-term for both the Reserve and National Guard (and within Army), additional and forthcoming years of data are necessary before determining if these are sustained trends. As previously noted, year-to-year rate comparisons provide preliminary insights but are notably limited in reliably detecting true changes in suicide trends over time.

#### Reserve and National Guard: CY 2014 – CY 2019 (Longer-Term)

**Figure 3** (**A-D**) provides suicide rates for the Reserve and National Guard between CY 2014 and CY 2019. Linear trend analysis indicates the Reserve and also the National Guard suicide rates did not show evidence of an increase or decrease over this time period (i.e., no statistical change, <95% confidence). When examined by Service, the same trends were observed for the Army Reserve and Army National Guard as described for the Reserve and National Guard, respectively.

<sup>&</sup>lt;sup>18</sup> Per DoDI 6490.16, rates are not reported when the number of suicides is less than 20 because of statistical instability.

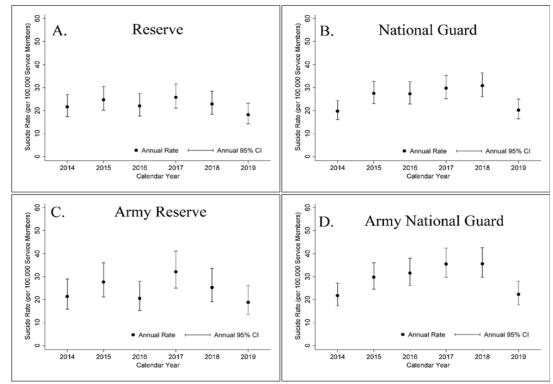


Figure 3. Reserve and National Guard Suicide Rates per 100,000 Service Members by CY<sup>1-3</sup>

1. Source(s): Linear trend analysis (CY 2014-CY2019) and graphics provided by PHCoE; data obtained from AFMES.

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

3. The 95% confidence interval (indicated by bars) represents the range in which the true suicide rate falls with 95% certainty.

#### Demographic and Military Profile of Suicide Deaths

The demographic profile of Service members who died by suicide in CY 2019 was similar across the Active Component, Reserve, and National Guard (**Table 2**); and, overall, are reflective of the profile of the Total Force.<sup>19</sup> Largely, suicide decedents were enlisted Service members (ranging from 83.1% to 92.7% across military populations). Service members in pay grades E1 to E4 continued to represent the largest percentage of suicide decedents at 49.4% (Active Component), 49.2% (Reserve), and 49.4% (National Guard). Service members in pay grades E5 to E9 represented the second largest proportion of decedents at 43.6% (Active Component), 32.3% (Reserve), and 40.4% (National Guard). Suicide decedents were largely enlisted, male, and under the age of 30 across the Active Component, Reserve, and National Guard (see **Table 2**). Rate ratios were calculated to determine if these demographics were associated with a greater risk for suicide; indeed, enlisted, males, and those under the age of 30 in the Active Component were each found to be at higher risk for suicide compared to the population average.<sup>20</sup> Moreover, 42.7% of the total military population in CY 2019 were enlisted males, who were less than 30 years of age, whereas 61.0% of the military suicide decedent population represented these three demographics combined for the same year.

<sup>&</sup>lt;sup>19</sup> Total Force includes DoD Active and Reserve Component military personnel. Reserve Component is further limited to members of the Selected Reserve (SELRES).

<sup>&</sup>lt;sup>20</sup> Analyses conducted by DoD Psychological Health Center of Excellence (PHCoE). Only Active Component Service members who died by suicide had a large enough sample size to reliably calculate rate ratios for all demographic categories.

	Active Component		Re	serve	Nation	al Guard
	Count	Percent	Count	Percent	Count	Percent
Total	344	100%	65	100%	89	100%
Sex						
Male	315	91.6%	62	95.4%	83	93.3%
Female	29	8.4%	3	4.6%	6	6.7%
Age Group						
17-19	27	7.8%	4	6.2%	5	5.6%
20-24	134	39.0%	16	24.6%	29	32.6%
25-29	92	26.7%	13	20.0%	21	23.6%
30-34	40	11.6%	15	23.1%	15	16.9%
35-39	32	9.3%	6	9.2%	5	5.6%
40-44	16	4.7%	5	7.7%	5	5.6%
45-49	3	0.9%	6	9.2%	5	5.6%
50-54	0	0%	0	0%	3	3.4%
55-59	0	0%	0	0%	1	1.1%
Race						
White	260	75.6%	50	76.9%	74	83.1%
Black or African American	36	10.5%	8	12.3%	11	12.4%
American Indian/Alaska Native	7	2.0%	0	0%	1	1.1%
Asian/Pacific Islander	22	6.4%	4	6.2%	2	2.2%
Other/Unknown	19	5.5%	3	4.6%	1	1.1%
Rank						
E (Enlisted)	319	92.7%	54	83.1%	80	89.9%
E1-E4	170	49.4%	32	49.2%	44	49.4%
E5-E9	149	43.3%	21	32.3%	36	40.5%
Unknown	0	0%	1	1.5%	0	0%
O (Commissioned Officer)	20	5.8%	9	13.8%	7	7.9%
W (Warrant Officer)	4	1.2%	2	3.1%	2	2.2%
Cadet	1	0.3%	0	0%	0	0%
Marital Status						
Never Married	151	43.9%	32	49.2%	49	55.1%
Married	170	49.4%	31	47.7%	33	37.1%
Divorced	23	6.7%	1	1.5%	7	7.9%
Unknown	0	0%	1	1.5%	0	0%

Table 2. Service Member Suicide Counts and Percentages, CY	2019 <sup>1</sup>
------------------------------------------------------------	-------------------

1. Source(s): AFMES.

### Method of Suicide Death

The most common methods of suicide death in CY 2019 across the Active Component, Reserve, and National Guard were firearms followed by hanging/asphyxiation (**Table 3**).<sup>21</sup> The proportion of suicide deaths by these methods has not significantly changed over time (CY 2014 to CY 2019).

	Active Com		Rese	rve	National Guard	
Method of Death	Count	Percent	Count	Percent	Count	Percent
Total	344	100%	65	100%	89	100%
Firearm	205	59.6%	43	66.2%	70	78.7%
Hanging/Asphyxiation	108	31.4%	14	21.5%	12	13.5%
Drugs/Alcohol	6	1.7%	1	1.5%	0	0%
Sharp/Blunt Object	7	2.0%	0	0%	1	1.1%
Poisoning	9	2.6%	0	0%	0	0%
Falling/Jumping	3	0.9%	0	0%	0	0%
Other	3	0.9%	0	0%	2	2.2%
Pending/Unknown	3	0.9%	7	10.8%	4	4.5%

**Table 3.** Method of Suicide Death by Military Population, CY 2019<sup>1-2</sup>

1. Source(s): CY 2019 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 military suicide rates compare to those in the U.S. general population.<sup>22</sup> Although the Department recognizes unique differences between the U.S. general and military populations, such comparisons can assist in identifying how the military may reflect patterns seen in the civilian population, and how promising initiatives may be applicable to Service members and families. However, directly comparing military and U.S. population suicide rates is misleading. In the U.S., males have nearly four times higher risk for suicide death than females.<sup>23</sup> Since the military has a higher percentage of males (81.7%) compared to the U.S. population (49.2%),<sup>24</sup> it is not surprising that military suicide rates are higher. Age is another demographic factor associated with suicide risk and also varies substantially between the military and U.S. populations. The military has a higher percentage of younger individuals (mean age 29.6) than the U.S. population (mean age 41.3). Given these differences between the military and U.S. populations, any comparison of suicide rates must first account for age and sex. After accounting for these factors, the CY 2019 Active Component and National Guard suicide rates are comparable to the CY 2018 U.S. population rate (95% confidence interval span the U.S.

<sup>&</sup>lt;sup>21</sup> In CY 2018, approximately 92% of Active Component Service members and 99% of Reserve Component Service members who died by firearm suicide used a personally owned firearm (as opposed to a military-issued firearm; DoDSER Annual Report, CY 2018).

<sup>&</sup>lt;sup>22</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.

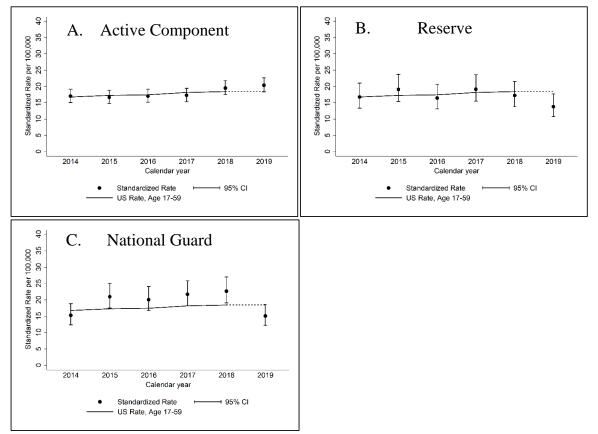
<sup>&</sup>lt;sup>23</sup> Centers for Disease Control and Prevention (n.d.). Web-based Injury Statistics Query and Reporting System (WISQARS). Retrieved July 17, 2020 from http://www.cdc.gov/injury/wisqars/index.html. Most recent year data available is 2018.

<sup>&</sup>lt;sup>24</sup> U.S. Census Bureau. (n.d.). Quick facts: United States. Retrieved July 17, 2020 from

https://www.census.gov/quickfacts/fact/table/US/PST045219.

population rate of 18.4 per 100,000), but the rate was lower for the Reserve (95% confidence interval is below 18.4 per 100,000) (**Figure 4 A-C**).<sup>25</sup> These comparisons are preliminary since the U.S population rate is from CY 2018 (latest available) and rates continue to increase over time.

**Figure 4 (A-C).** CY 2014–CY 2019 Adjusted Annual Suicide Mortality Rates, by Military Population, Standardized to the CY 2014–CY 2018 U.S. Adult Population Rate Data<sup>1-3</sup>



1. Source(s): Analyses and graphics provided by PCHoE; data from AFMES (military populations) and CDC (U.S. population), age 17-59.

2. Note: The U.S. population data include data from civilians, as well as current and former Service members.

3. For CY 2019, the U.S. population value is repeated from CY 2018, as this is the most recent data available at the time of this publication.

#### Contextual Factors and Common Misconceptions

While an in-depth examination of the risk and contextual factors associated with suicide is beyond the scope of this report, it is important to highlight a few additional factors that may contribute to military deaths by suicide.<sup>26</sup> Prior military-focused research and DoD suicide surveillance reports highlight a number of risk/contextual factors, including relationship, financial, and legal/administrative problems, ineffective life/coping skills, reluctance to seek help, and perceived stigma to engage in suicide care/treatment.

<sup>&</sup>lt;sup>25</sup> The most recent data for the U.S. population at the time of this report was for CY 2018. Analyses conducted by DoD PHCoE.

<sup>&</sup>lt;sup>26</sup> For a detailed examination of these contextual factors, please refer to the most recent DoDSER Annual Report (CY 2018).

Relationship stressors, such as failed or failing relationships, are frequently cited risk factors for suicide.<sup>27,28,29</sup> In the military, failed or failing relationships in the 90 days prior to death were reported in Active Component (39.2%) and Reserve Component (45.2%) Service members who died by suicide in CY 2018.<sup>30</sup> For some individuals, financial stress, in combination with other factors (e.g., relationship issues, mental health problems), can increase vulnerability for suicide.<sup>31,32,33</sup> Based on military suicide surveillance data, excessive debt and bankruptcy in the 90 days prior to death were reported for Active Component (4.7%) and Reserve Component (9.7%) Service members who died by suicide in CY 2018.<sup>34</sup> Active Component (32.4%) and Reserve Component (21.8%) Service members who died by suicide in CY 2018 also had administrative or legal difficulties (e.g., non-judicial punishment, administrative separations proceedings, medical evaluation board proceedings, civil legal proceedings) in the 90 days prior to death.

Ineffective life/coping skills, reluctance to seek help, and stigma are also risk factors for suicide. Surveys showed some Active Component Service members reported undesirable coping strategies when asked how they would respond if they felt trapped or stuck in a stressful situation, including dealing with the situation on their own (77.0%), ignoring or avoiding the situation (25.0%), or using drugs or alcohol to cope (13.0%).<sup>35</sup> Perceived stigma is a barrier to help-seeking. Active Component Service members endorsed several reasons for not seeking help, including loss of privacy/confidentiality (68.0%), fear of being perceived as "broken" by chain of command or peers (67.0%), and perceived negative impact to their career (65.0%). As noted earlier, each military suicide is complex and involves an interaction of many interrelated factors.<sup>36,37</sup>

In addition to contextual risk factors for suicide, there are many misconceptions surrounding suicide and suicide risk. **Appendix B** presents some common suicide misconceptions and the facts to help clarify, including the following misconceptions: (1) suicide is not impulsive; (2) owning a firearm is not associated with suicide risk; (3) suicidal behavior is hereditary; (4) most military firearm deaths are by combat; and (5) only mental health professionals can help individuals who are at risk for suicide. **Appendix B** also includes misconceptions from the CY 2018 Annual Suicide Report (e.g., deployment increases suicide risk among Service members) with updated facts based on the most recent data and research.

<sup>32</sup> Turunen, E. & Hiilamo, H. (2014). Health effects of indebtedness: A systematic review. BMC Public Health, 14, 489.

<sup>&</sup>lt;sup>27</sup> LeardMann, C. A., Powell, T. M., Smith, T. C., Bell, M. R., Smith, B., Boyko, E. J., et al. (2013). Risk factors associated with suicide in current and former US military personnel. *Journal of the American Medical Association*, *310*(5), 496-506.

<sup>&</sup>lt;sup>28</sup> Crowell-Williamson, G. A., Fruhbauerova, M., DeCou, C. R., & Comtois, K. A. (2019). Perceived burdensomeness, bullying, and suicidal ideation in suicidal military personnel. *Journal of Clinical Psychology*, *75*(12), 2147-2159.

<sup>&</sup>lt;sup>29</sup> Whisman, M. A., Salinger, J. M., Labrecque, L. T., Gilmour, A. L., & Snyder, D. K. (2019). Couples in arms: Marital distress, psychopathology, and suicidal ideation in active-duty Army personnel. *Journal of Abnormal Psychology*, *129*(3), 248–255.

<sup>&</sup>lt;sup>30</sup> Tucker, J., Smolenski, D. J., & Kennedy, C. H. (2019). *Department of defense suicide event report: Calendar year 2018 annual report*. Psychological Health Center of Excellence. https://www.pdhealth.mil/sites/default/files/images/docs/TAB\_B\_2018\_DoDSER\_Annual\_Report508%20final-9MAR2020.pdf.

<sup>&</sup>lt;sup>31</sup> Goodin, C. A., Prendergast, D. M., Pruitt, L. D., Smolenski, D. J., Wilson, N. Y., Skopp, N., & Hoyt, T. (2019). Financial hardship and risk of suicide among US Army personnel. *Psychological services*, *16*(2), 286-292.

<sup>&</sup>lt;sup>33</sup> Ursano, R. J., Fullerton, C. S., & Dichtel, M. L. (2016). *Financial stress and behavioral health in military servicemembers: Risk, resilience, mechanisms and targets for intervention stress, resilience, and well being*. Bethesda, MD: Center for the Study of Traumatic Stress, Uniformed Services University of the Health Sciences.

<sup>&</sup>lt;sup>34</sup> Tucker, J., Smolenski, D. J., & Kennedy, C. H. (2019). *Department of defense suicide event report: Calendar year 2018 annual report*. Psychological Health Center of Excellence. https://www.pdhealth.mil/sites/default/files/images/docs/TAB\_B\_2018\_DoDSER\_Annual\_Report-508%20final-9MAR2020.pdf.

<sup>&</sup>lt;sup>35</sup> Department of Defense, Office of People Analytics. (2018a). 2018 Status of forces survey of active duty members, tabulation of responses. https://dhra.deps.mil/sites/OPA/opa-survey/SitePages/Home.aspx.

<sup>&</sup>lt;sup>36</sup> Hoge, C. W. (2019). Suicide reduction and research efforts in service members and veterans—Sobering realities. *Journal of the American Medical Association Psychiatry*, 76(5), 464-466.

<sup>&</sup>lt;sup>37</sup> Knox, K. L., & Bossarte, R. M. (2012). Suicide prevention for veterans and active duty personnel. *American Journal of Public Health, 102* (1 Suppl), S8–S9.

## **Military Family Suicide Data**

The Department uses a multipronged approach that leverages both military and civilian data to collect suicide data involving a military family member. Specifically, data are gathered from three sources: (1) Defense Enrollment Eligibility Reporting System (DEERS); (2) Military Services; and (3) CDC National Center for Health Statistics National Death Index (NDI) to determine suicides among military family members (as required by the Carl Levin and Howard P. "Buck" McKeon National Defense Authorization Act for Fiscal Year 2015, Public Law 113-291).<sup>38,39,40</sup> No single source provides a full accounting of suicide deaths among military family members. It is important to note 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 of, or jurisdiction over, these deaths and must seek other methods to obtain this information. Through this multipronged approach, the Department ensures it is capturing the most complete information possible from both military and civilian data sources.

## **Definition of Military Family Member**

Section 1072(2) of Title 10, U.S. Code, defines a dependent (also referred to as "military family members" for purposes of this report) with respect to a uniformed Service member (or former member) as:

- 1. A spouse;
- 2. Un-remarried 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>41</sup>
- 4. Un-remarried former spouse of a current or former Service member;
- 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>42</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 this 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 are registered in DEERS.<sup>43,44</sup> 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

<sup>&</sup>lt;sup>38</sup> In CY 2016, modifications were made to Defense Enrollment Eligibility Reporting System (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. These data were available starting in 2017.

<sup>&</sup>lt;sup>39</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>&</sup>lt;sup>40</sup> The Air Force Office of Special Investigations (OSI) also collects information on military family member deaths.

<sup>&</sup>lt;sup>41</sup> Dependents include biological, step-, foster, ward, pre-adoptive, and domestic partner children.

<sup>&</sup>lt;sup>42</sup> Additional criteria may apply (see section 1072(2) of Title 10, U.S. Code).

<sup>&</sup>lt;sup>43</sup> DoD is unable to capture information on military family members unless they are registered in DEERS.

<sup>&</sup>lt;sup>44</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.

underestimated for this population. For simplicity, this report will hereafter refer to dependent children as "dependents."

## CY 2018 Family Member Data Summary

**Table 4** shows the annual suicide counts and rates for family members overall, as well as for military spouses and dependents, for the Active Component, Reserve, and National Guard for CY 2017 to CY 2018.<sup>45</sup> Data for CY 2019 were unavailable for this report because of the time lag inherent in the collection of civilian death data.<sup>46</sup>

There were 193 reported suicide deaths among military family members in CY 2018. The family member (spouses and dependents combined across all Components) suicide rate was 7.1 per 100,000 military family members (**Table 4**); this rate was consistent with the CY 2017 rate (i.e., no statistical change). The overall family member suicide rates were similar for the Active Component, Reserve, and National Guard, ranging from 6.3 to 8.5 deaths per 100,000 individuals.

DoD Component	(	CY 2017	CY 2018		
DoD Component	Count	Rate	Count	Rate	
Total Force	186	6.8	193	7.1	
Spouse	123	11.5	128	12.1	
Dependent	63	3.8	65	3.9	
Active Component	122	7.0	118	6.9	
Spouse	92	13.2	84	12.1	
Dependent	30	2.9	34	3.3	
Reserve	29	6.2	29	6.3	
Spouse		11.7			
Dependent					
National Guard	35	6.5	46	8.5	
Spouse				13.4	
Dependent		6.9		5.8	

Table 4. Family Member Suicide Rates per 100,000 by Component, CY 2017-CY 2018<sup>1-3</sup>

1. Source(s): Defense Enrollment Eligibility Reporting System (DEERS), Military Services, and National Death Index (NDI) (suicide counts); Defense Manpower Data Center (DMDC) (denominators).

2. Per DoD Instruction 6490.16, rates for subgroups with fewer than 20 suicides are not reported because of 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.

In this report, family members could also be Service members, as Section 1072(2) of Title 10 does not explicitly exclude Service members from the definition of a dependent.<sup>47</sup> The Department included dual Service members in family member suicide counts and rate estimation to better capture the full extent of suicide among military family members. In CY 2018, 34 family members (17.6%) who died by suicide were also Service members at the time of their death.<sup>48</sup> When these family members who were also Service members were *excluded* from the family

lag between the most recent available NDI death information and any related report on military family member suicides.

<sup>&</sup>lt;sup>45</sup> Note that, while not included in Table 4 counts for the DoD military family members, per the FY 2015 NDAA, DoD collects data on suicide deaths for family members of the U.S. Coast Guard. In CY 2018, there were two U.S. Coast Guard military family member suicide deaths.
<sup>46</sup> It can take between 12 and 18 months for CDC to receive death information from the state vital statistics offices. As a result, there is a two-year

 <sup>&</sup>lt;sup>47</sup> Additionally, dual Service members can receive some family member benefits (e.g., FSGLI), which requires that they be registered in DEERS.
 <sup>48</sup> In CY 2017, of the family members who died by suicide, 10% were also Service members at their time of death.

member population, the family members (spouses and dependents combined across all Components) suicide rate was 6.2 per 100,000 individuals. This rate was not statistically different from the family member suicide rate that *included* individuals with a dual role as a Service member and family member per Title 10 (7.1 per 100,000). Note that including or excluding family members who were also Service members at the time of their death also did not significantly impact any of the rates reported below for military spouses or dependents; as such, individuals with a dual role remained in the rates reported below.

### Military Spouses

Of the 128 military spouses who died by suicide in CY 2018, a majority were female (57.8%) and under 40 years of age (85.1%); a younger, female majority in military spouse suicide deaths aligns with the overall military spouse population demographics, wherein a majority of spouses are female (91.3%) and under 40 years of age (86.6%).<sup>49</sup> Note that in CY 2018, 48.4% of military spouses (n = 62) had a history of military service (of whom 32 spouses were currently serving at the time of their death by suicide).<sup>50</sup> Examined by sex, 81.5% of male spouses (n = 44) had service history (of whom 24 males were currently serving at time of death), and 24.3% of female spouses (n = 18) had service history (of whom less than 10 females were currently serving at time of death).

For military spouses, the CY 2018 suicide rate was 12.1 deaths per 100,000 individuals; this rate was consistent with the CY 2017 rate (no statistical change; **Table 4**). **Table 5** presents suicide rates for spouses by sex.<sup>51</sup> When examined by sex and ages 18 to 60, the female spouse suicide rate was 8.0, and the male spouse rate was 40.9 per 100,000 population in CY 2018, compared to 9.1 (female spouses) and 29.4 (male spouses) in CY 2017. Although there appears to be a sharp increase in the rate of male spouse suicide deaths in CY 2018, there was no statistically significant difference. The suicide counts are low, and the number of family members who died by suicide is a relatively smaller population compared to both the Service member and U.S. population. Therefore, small changes to the male spouse suicide counts can dramatically affect the suicide rate.

DoD Component		CY 2017		Y 2018
	Male	Female	Male	Female
Total Force	29.4	9.1	40.9	8.0
Active Component	30.8	10.8	37.3	8.7
Reserve				
National Guard				

Table 5. Military Spouse Suicide Rates per 100,000 Individuals by Sex, CY 2017-CY 2018<sup>1-4</sup>

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. population, 95% confidence intervals for the rates were calculated.

4. Per CDC requirements, counts under 10 were suppressed in order to protect the confidentiality of military family members.

<sup>&</sup>lt;sup>49</sup> Office of the Deputy Assistant Secretary of Defense for Military Community and Family Policy. (2018). 2018 Demographics report, profile of the military community. https://download.militaryonesource.mil/12038/MOS/Reports/2018-demographics-report.pdf.

<sup>&</sup>lt;sup>50</sup> In CY 2017, there were 50 (41%) spouses with any prior service history, of whom 17 (14%) spouses were currently serving at the time of death. <sup>51</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.

Compared to the U.S. population, the CY 2018 female spouse rate was statistically comparable to the female suicide rate in the U.S. population ages 18 to 60 years (8.0 and 8.4 per 100,000, respectively). However, the male spouse rate (40.9 per 100,000) was statistically higher than the U.S. population (28.4 per 100,000 for ages 18 to 60 years), despite not being significantly higher than the previous year (CY 2017).

## Military Dependents

Of the 65 military dependents who died by suicide in CY 2018, the majority were male (75.4%). Although the ages ranged from 12 to 23 years old, 47.8% 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 (64.7%). In CY 2018 and in CY 2017, less than 5% of dependents were also Service members at the time of their death.

For military dependents, the CY 2018 suicide rate was 3.9 deaths per 100,000; this rate was consistent with the CY 2017 rate (i.e., no statistical change; **Table 4**). **Table 6** presents suicide rates for dependents by sex.<sup>52</sup>

Table 6.	Military	Dependent Suicide Rates	per 100,000 Individuals b	y Sex, CY 2017–CY 2018 <sup>1-4</sup>
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DoD Component	CY 2017		CY 2018	
	Male	Female	Male	Female
Total Force	5.2		5.8	
Active Component	3.8		5.0	
Reserve				
National Guard				

1. Source(s): DEERS, Military Services, and NDI (suicide counts); DMDC (denominators).

2. Per DoD Instruction 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.

4. Per CDC requirements, counts under 10 were suppressed in order to protect the confidentiality of military family members.

The male military dependent suicide rate in CY 2018 was 5.8 per 100,000 population (which was consistent with the CY 2017 rate) and statistically lower than the rate among similar-age ( $\leq 23$  years) males in the U.S. population (9.3 per 100,000 population). This finding was somewhat expected, as military dependents are younger on average than dependents in the U.S. general population.<sup>53</sup> Per DoD policy, the female military dependent suicide rate was not reported (i.e., counts were under 20 for this group).

## Method of Family Member Suicide Death

Similar to CY 2017, among all family members (spouses and dependents combined across all Components), suicide deaths in CY 2018 were primarily by firearm (55.4%) and hanging/asphyxiation (26.9%). For both spouses and dependents individually, the most common methods of suicide death in CY 2018 were firearms followed by hanging/asphyxiation, consistent with CY 2017 (**Table 7**).

<sup>&</sup>lt;sup>52</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.

 $<sup>^{53}</sup>$  DoD dependents ages 0–11 made up 64% of the total dependent population, and the remaining 36% were 12–23 years old. In the U.S. population, individuals that were 0–11 years old made up a 51% of all individuals younger than 23, and the remaining 49% were 12–23 (CDC, 2018).

Firearms remained the leading method of suicide death when examined by sex, even for female spouses (48.6%). This is in contrast to the U.S. population wherein hanging/asphyxiation was the leading method of suicide death for adult females ages 18 to 60 (31.8%), closely followed by firearms (30.8%) and poisoning/drug overdose (29.1%). Suicide by firearm was the leading method among male spouses and male dependents (68.5% and 59.2%, respectively), followed by hanging/asphyxiation (20.4% and 32.7%, respectively), which are comparable to the order of suicide methods among males in the U.S. population ages 18 to 60 and among males in the U.S. population ages 18 to 60 and among males in the U.S. population ages 18 to 60 and among males in the U.S. population ages 18 to 60 and among males in the U.S. population ages 18 to 60 and among males in the U.S. population ages 18 to 60 and among males in the U.S. population ages 18 to 60 and among males in the U.S. population ages 18 to 60 and among males in the U.S. population ages 18 to 60 and among males in the U.S. population ages under 23 years of age. Due to low counts among this group when broken down by method of suicide, we are unable to determine leading methods or comparisons among female dependents.

	Total	Spouse	Dependent
Method of Death	Percent	Percent	Percent
Total	100%	100%	100%
Firearm	55.4%	57.0%	52.3%
Hanging/Asphyxiation	26.9%	22.7%	35.4%
Drugs/Alcohol	11.4%	14.8%	<5.0%
Sharp/Blunt Object	<1.0%	<1.0%	0%
Poisoning	<2.0%	<3.0%	0%
Falling/Jumping	<2.0%	<2.0%	<2.0%
Other	<3.0%	<1.0%	<7.0%

#### **Table 7.** Method of Suicide Death by Family Member Type, CY 2018<sup>1,2</sup>

1. Source(s): DEERS, Military Services, and NDI (suicide counts); DMDC (denominators).

2. The poisoning category includes deaths unrelated to drug overdose, such as carbon monoxide poisoning.

3. Per CDC requirements, counts under 10 and corresponding percentages were suppressed or masked (i.e. <1.0%) in order to protect the confidentiality of military family members.

Overall, there must be caution drawing strong conclusions based on two years of data for our military family members. 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 the Department has gathered data for a sufficient number of years to enable trend identification, we will target efforts to identify key trends for our military family members.

## **Current and Future Departmental Efforts**

## Current Suicide Prevention Strategy, Governance, and Efforts

The Department's suicide prevention efforts are guided by the 2015 Defense Strategy for Suicide Prevention. This strategy created the foundation for our prevention activities by using a public health approach, which acknowledges a complex interplay of individual-, relationship-, and community-level risk factors. In 2017, CDC released a bundled public health approach as a technical package, presenting seven broad, evidence-informed strategies to focus suicide prevention activities that have been found to effectively impact risk and protective factors surrounding suicide.<sup>54</sup> The Department's goals within the Defense Strategy for Suicide Prevention align with these seven strategies:

- 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

The Suicide Prevention General Officer Steering Committee is composed of senior executive leaders and general officers across the Department and leads the Department's suicide prevention efforts. This governance body addresses present and future suicide prevention needs by employing data-driven, evidence-informed practices that have DoD-wide applicability. Additionally, the Suicide Prevention and Risk Reduction Committee – a complementary, enterprise-wide, action-officer level committee – is responsible for coordinated implementation of the guidance provided by the Suicide Prevention General Officer Steering Committee. The Suicide Prevention and Risk Reduction Committee provides an opportunity for collaboration, communication, and documentation of promising suicide prevention practices across DoD.

The Department has a number of efforts underway to support Service members and their families, including those aimed at increasing access to support, reducing barriers to receiving support, and targeting our populations of greatest concern. The CY 2018 ASR presented 15 ongoing and new suicide prevention initiatives – as examples of suicide prevention efforts occurring across the Department – that are aligned to the Defense Strategy for Suicide Prevention goals and seven broad, evidence-informed strategies. **Appendix C** offers updates to those previously highlighted initiatives – organized by the seven strategies – and introduce new evidence-informed initiatives underway. Note 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. **Appendix D** provides more detailed information on chaplains and other spiritual resources available to our military community.

<sup>&</sup>lt;sup>54</sup> Stone, D. M., Holland, K. M., Bartholow, B., Crosby, A. E., 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.

#### Evaluating and Assessing Effectiveness of Policies, Programs, and Initiatives

Suicide is a complex and multifaceted phenomenon that requires a comprehensive, holistic approach to prevention. Collectively, Departmental policies, programs, and initiatives are designed to address various suicide risk and protective factors that have been shown to impact suicide within our military community. Likewise, our program evaluation efforts must account for such complex interactions of suicide risk and protective factors and examine the effectiveness of our ongoing suicide prevention efforts more holistically as a collective system. The following sections describe the Department's policy review efforts and provide an overview of our enterprise-wide program evaluation framework and baseline metrics for suicide prevention efforts.

#### Policy Review

The Department instituted the first-ever enterprise-wide suicide prevention policy through DoDI 6490.16, "Defense Suicide Prevention Program," originally published on November 6, 2017, and recently updated on June 15, 2020. This policy provides direction to the Military Services and Office of the Secretary of Defense (OSD) Components on their roles and responsibilities with respect to the Defense Suicide Prevention Program, to include fostering a command climate that encourages individuals to seek help and build resilience. This policy also establishes standards for suicide prevention, intervention, and postvention efforts that reflect a holistic, public health approach to suicide prevention, as well as requires standardized collection and analysis of suicide data. Program evaluation efforts, detailed in the next section, will also help evaluate overall effectiveness and inform enhancements to our public health approach and policies.

DSPO has implemented processes to conduct regular reviews of Military Service and OSD Component responsibilities, which represent a broad range of activities that address the various aspects of the public health approach as it relates to suicide prevention. In accordance with DoDI 6490.16, DSPO oversees the Military Services' compliance with the DoD policy. In CY 2019, DSPO conducted a review of Service-level policies and determined they align with DoDI 6490.16, as applicable.<sup>55,56</sup> Additionally, in CY 2020, DSPO reviewed, in coordination with the Secretaries of the Military Departments, Military Services' policies, programs, surveillance, and other activities related to suicide prevention to ensure unity of effort.<sup>57</sup>

In terms of the way forward, the Department recognizes that suicide and many violent, abusive, or harmful acts (e.g., sexual assault, sexual harassment, intimate partner violence) share common risk and protective factors; DoD is, therefore, focusing on a comprehensive approach to violence prevention and reduction of harmful behaviors towards self and others. In February 2020, the Department chartered the Prevention Collaboration Forum to address such issues that require integrated and coordinated actions across policy offices. DoD leveraged the Prevention Collaboration Forum to develop an integrated violence prevention policy and approach to address risk and protective factors shared by multiple readiness-detracting behaviors – including suicide – with young and enlisted Service members being a key population of focus. DSPO, as a Prevention Collaboration Forum member, has been actively engaged in this initiative to ensure an integrated

<sup>&</sup>lt;sup>55</sup> The Service-level and NGB policies are AR 600-63 (Army), MCO 1720.2a (Marine Corps), OPNAVINST 1720.4B (Navy), AFI 90-5001 (Air Force), and CNGBI 0300.01 (National Guard Bureau).

<sup>&</sup>lt;sup>56</sup> Requirements for the Military Services and NGB outlined in the updated DoDI 6490.16 can be accessed at

https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodi/649016p.pdf?ver=2020-06-15-112615-427.

<sup>&</sup>lt;sup>57</sup> DoDI 6490.16 does not require the Director of DSPO to oversee OSD Components' compliance. However, assessment of responsibilities and how they are being met may help identify gaps and inform improvements.

approach to suicide prevention, which provides mutual support toward the Department's efforts to reduce and stop these readiness-detracting behaviors.

The Department will also continue to monitor and conduct regular reviews of Military Service and OSD Component responsibilities, as well as use program evaluation, stakeholder engagement and collaboration, and other means to identify gaps and enhance policies. Most recently, DoDI 6490.16, updated on June 15, 2020, now includes military family member suicide data reporting requirements and incorporates into policy the Department's official governance body for suicide prevention, the Suicide Prevention General Officer Steering Committee, among other changes. These continued efforts to adapt and evolve will allow the Department to better support the military community on suicide prevention.

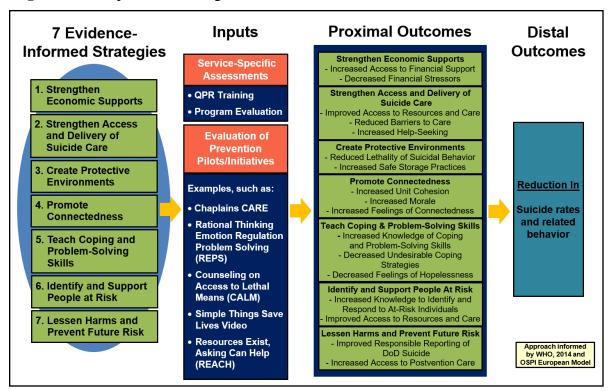
## Program Evaluation

Suicide prevention is an ever-evolving science. Likewise, the Department's program evaluation efforts continue to evolve to reflect the latest scientific and evidence-based research. For example, DoD uses an enterprise-wide program evaluation framework to evaluate the effectiveness of the Department's suicide prevention efforts (See **Figure 5**). Our current framework integrates the seven broad, evidence-informed strategies from CDC, and aligns with the 2015 Defense Strategy for Suicide Prevention goals.

Over the past decade, the Department focused on implementing suicide prevention programs and initiatives with the intent of reducing suicide rates within our military community. The Department has expanded our focus to include ensuring program evaluation is an integral part of program development and implementation.

Our program evaluation framework provides a strong foundation for current and future evaluation efforts. We will use this framework to evaluate the effectiveness of ongoing programs and activities, more holistically, as a collective system in order to determine whether modifications are needed and/or whether these efforts should continue. Moreover, the VA/DoD Clinical Practice Guidelines and the Joint Commission serve to ensure that high-quality, evidence-based clinical treatment and care is provided to our military community.<sup>58</sup> Below, we overview our enterprise-wide program evaluation framework and discuss baseline metrics for our suicide prevention efforts, as well as describe our future program evaluation plans.

<sup>&</sup>lt;sup>58</sup> Department of Veterans Affairs & Department of Defense. (2019). VA/DoD clinical practice guideline for assessment and management of patients at risk for suicide.



**Figure 5.** Enterprise-Wide Program Evaluation Framework

Beginning on the left side of the program evaluation framework (**Figure 5**), the seven broad, evidence-informed strategies are used to develop specific suicide prevention programs and initiatives that will impact risk and protective factors related to suicide. These ongoing and new Departmental suicide prevention initiatives (i.e., the inputs in this logic model) are designed to impact one or more of the proximal outcomes. The 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. Although reductions in these behaviors constitute the ultimate indicators for success, achieving a reduction in these behaviors requires a coordinated implementation of multiple suicide prevention initiatives of suicide prevention initiatives, the Department leverages the proximal outcomes, such as increasing knowledge to identify and respond to at-risk individuals, reducing barriers to care, increasing connectedness, and decreasing financial stressors. In sum, both types of outcomes help us measure progress and effectiveness.

#### Baseline Metric Data for Program Evaluation Framework

Baseline data provide a critical point of comparison, or starting point, for monitoring progress on outcomes over time. In other words, before one can track changes on proximal outcomes or begin to understand if suicide prevention efforts are working, one needs a starting point for comparison. Typically, the baseline is established immediately before implementation of a program or initiative to understand what, if any, impact the program or initiative has on outcomes.

The Department has one or more programs or new initiatives supporting each of the seven broad, evidence-informed strategies and is collecting data to evaluate their effectiveness. It is important to understand, however, that no one program or initiative, in and of itself, will result in a reduction of suicide or suicide behaviors; instead, the Department examines their collective impact to more fully understand their effectiveness on outcomes. As many of the current DoD programs or initiatives aligned with the seven broad strategies began in CY 2019, CY 2018 serves as the baseline data to evaluate the effectiveness of these programs and initiatives with respect to the proximal and distal outcomes moving forward.

The Department leverages several sources of data to track standardized metrics for the proximal and distal outcomes, including Departmental suicide data from the Armed Forces Medical Examiner System and DoDSER system, as well as DoD-wide surveys representative of the entire population. These surveys include the Status of Forces Surveys (SOFS) and the Defense Organizational Climate Survey (DEOCS).<sup>59</sup>

Below are examples of baseline metric results that align with proximal outcomes for three of the seven broad, evidence-informed strategies. The first example is the broad strategy of *Identify and Support People at Risk*. A key proximal outcome aligned with this strategy is *increased knowledge to identify and respond to at-risk individuals*. Baseline metric findings were gathered via the 2018 Status of Forces Survey of Active Duty Members (SOFS-A), with 78.0% of Service members reporting their Service suicide prevention training was at least somewhat helpful (and of those, 48.0% indicating it was very to extremely helpful) in identifying and responding to suicidal behavior in others.<sup>60</sup> Each of the Services execute *Question-Persuade-Refer (QPR)* suicide prevention training, designed to teach "gatekeepers," such as Service members, chaplains, and other individuals in the military community how to recognize the warning signs of a suicide crisis and how to respond to those at risk for suicide or suicidal behavior. Increasing this proximal outcome should influence, when combined with other efforts, reductions in suicide deaths and attempts.

A second evidence-based strategy example is *Strengthen Access and Delivery of Suicide Care*. In the past six months, 16.0% of Active Component Service members talked to a counselor.<sup>61</sup> A key proximal outcome aligned with this strategy is *reduced barriers to care*, as Service members will be less likely to access needed care and support if they perceive barriers to be present. Active Component Service members were most likely to report the following as reasons for not seeking help with personal problems (e.g., relationship, financial): loss of privacy/confidentiality (68.0%), fear of being perceived as "broken" by chain of command or peers (67.0%), negative impact to their career (65.0%), and not knowing who to turn to (50.0%).<sup>62</sup> Note, along with other existing efforts designed to impact such proximal outcomes, DoD has developed and is piloting a new training – *Resources Exist, Asking Can Help (REACH)* – designed to address these help-seeking

<sup>&</sup>lt;sup>59</sup> The SOFS use valid scientific survey methods, including random sampling procedures that are used to select a sample representing the military population based on combinations of demographic characteristics. Demographic groups with lower response rates oversampled. The DEOCS administration resembles a census sample, when data are collected and presented on an annual basis. This implies the DEOCS target population is the entire DoD. Data for both SOFS and DEOCS are weighted to compensate for nonresponders and produce survey estimates of population totals that are representative of their respective populations.

<sup>&</sup>lt;sup>60</sup> Department of Defense, Office of People Analytics. (2018a). 2018 Status of forces survey of active duty members, tabulation of responses. https://dhra.deps.mil/sites/OPA/opa-survey/SitePages/Home.aspx.

<sup>&</sup>lt;sup>61</sup> Note: The Status of forces survey of active duty members does not define counselor, and may include military and civilian, medical or nonmedical, providers.

<sup>&</sup>lt;sup>62</sup> Department of Defense, Office of People Analytics. (2018a). 2018 Status of forces survey of active duty members, tabulation of responses. https://dhra.deps.mil/sites/OPA/opa-survey/SitePages/Home.aspx.

concerns and perceived barriers of Service members head on, and to encourage Service members to seek out help early on, before life challenges become overwhelming.

As a third illustrative example, take the broad strategy – *Promoting Connectedness*. A key proximal outcome aligned with this strategy is *increased connectedness*, as connections with others serve as an important protective factor against suicide risk. Connectedness baseline metric findings were gathered via the 2018 Defense Organizational Climate Survey. Service members responded to a statement, "These days, I feel that there are people I can turn to in times of need." Overall, 70.9% of Service members reported high connectedness with others, with connectedness ranging from 63.8% for junior enlisted to 84.7% for senior officers. **Appendix E** provides additional details on the proximal outcomes in the enterprise-wide program evaluation framework and the baseline metric findings.

With respect to Departmental clinical suicide prevention efforts – which align under the broad strategy of *Strengthen Access and Delivery of Suicide Care* – the 2019 VA/DoD Clinical Practice Guidelines serve as a guide for health care providers to understand which clinical approaches/treatments for suicide prevention have the most scientific evidence.<sup>63</sup> The Department is developing official procedural instructions to guide the implementation of best practices and treatment in the Military Treatment Facilities based on these most current findings (with publication expected by CY 2021). Military Treatment Facilities follow the Joint Commission standards for U.S. health care organizations. Note that both clinical behavioral health care providers and non-medical providers receive training on best practices for evidence-based care for assessment, management, and intervention of suicide-related behavior, mandated reporting, duty to warn, and reporting of adverse incidents.

Regarding program evaluation metrics for clinical suicide prevention efforts, of the Department is developing policy to include metrics associated with clinical suicide treatment and prevention. Specifically, the Department is focused on creating and implementing policy with associated outcomes and process metrics, which will: (1) identify whether effective treatment modalities are being used for those at risk for suicide; (2) examine the rate of integration of mental health screenings and suicide risk and prevention for members during the delivery of primary care; and (3) ensure that training standards for behavioral health care providers are being met.

Given the complexity and sensitivity of the subject matter, and the need to review, assess, and incorporate evidence-based best practices, the Department continues to collaborate with subject matter experts across the Department to inform its policies and develop measures that define and quantify success, efficiency, and program effectiveness.

In terms of the way forward for program evaluation: leveraging the baseline data on key proximal and distal outcomes within the enterprise-wide program evaluation framework, the Department will continue to assess our standing on these metrics in order to evaluate the effectiveness of our programs and activities more holistically as a collective system in combatting suicide at DoD. The Department is also working with the Military Services to examine Service-level data on non-clinical suicide prevention programs that may help shed further light on the effectiveness of our efforts. For example, the Army is currently conducting a program evaluation for the *Engage* training, which is targeted toward junior enlisted Soldiers and designed to increase the following:

<sup>&</sup>lt;sup>63</sup> Department of Veterans Affairs & Department of Defense. (2019). VA/DoD clinical practice guideline for assessment and management of patients at risk for suicide.

awareness of risk indicators for suicide, substance misuse, and sexual harassment; individual sense of responsibility for intervening; and indirect and direct plans for effective intervention. The *Engage* program evaluation is a nine-month longitudinal randomized study to collect data in CY 2019 and CY 2020. The Army expects to have evaluation findings by the end of FY 2021.

The Department continues to pilot and evaluate new promising initiatives in our military population using this program evaluation framework, such as the *REACH* training pilot, before implementing more broadly across DoD. As previously mentioned, additional program evaluation metrics are in progress for assessing clinical suicide prevention efforts. These collective efforts strengthen the Department's understanding of our current suicide prevention policies and programs, helping to identify gaps, deficiencies, and when modifications are necessary.

### **Current Research Collaborations and Data Sharing**

In addition to program evaluation and the previously mentioned new pilot initiatives, the Department collaborates regularly on efforts, both internally and externally, with other organizations in order to continually advance our understanding of suicide and our evidence-base of effective suicide prevention policies and programs. Partnerships with national and local organizations, such as other Federal agencies, nonprofit organizations, and academia, are essential in creating a robust safety net for our military community and advancing the public health approach to suicide prevention.

The Department recently developed the enterprise-wide DoD Suicide Prevention Research Strategy FY 2020 to 2030. The DoD Suicide Prevention Research Strategy focuses on addressing military-specific gaps in knowledge through research that will inform policies and support evidence-based programs to reduce suicides in our military community. This strategy represents a collaborative effort with both internal and external collaborators, led by the Office of the Assistant Secretary of Defense for Health Affairs, the U.S. Army Medical Research and Development Command, and the Uniformed Services University of the Health Sciences, in collaboration with the Defense Health Agency, the Military Services, Special Operations Command, DSPO, VA, CDC, and the National Institute of Mental Health. This strategy aligns with the Defense Strategy for Suicide Prevention and the seven broad, evidence-informed strategies published by CDC, as well as other key foundational suicide prevention strategies, such as the National Strategy for Suicide Prevention, the National Research Action Plan,<sup>64</sup> and the National Action Alliance for Suicide Prevention's Prioritized Research Agenda for Suicide Prevention, to support a comprehensive approach with a focus on the unique research needs specific to the military. The DoD Suicide Prevention Research Strategy prioritizes military suicide research efforts that will ultimately lead to evidence-based policies and programs that benefit the health and readiness of Service members and their families.

To meet the goals and objectives of the aforementioned strategies and plans, the Department engages in research collaborations and data sharing, both internally and externally, with the VA, other Federal Government agencies, academia, and non-governmental organizations. Crossagency data and research collaboration allows for a mutually beneficial exchange of knowledge and resources, driving advances in the understanding of suicide risk and development of effective programs and policies. Collaborative efforts are critical to surveillance efforts, as well as the

<sup>&</sup>lt;sup>64</sup> Department of Defense, Department of Veterans Affairs, Department of Health and Human Services, & Department of Education. (2013). *National research action plan: Responding to the executive order "Improving access to mental health services for veterans, service members, and military families.*" https://obamawhitehouse.archives.gov/sites/default/files/uploads/nrap\_for\_eo\_on\_mental\_health\_august\_2013.pdf.

implementation and evaluation of evidence-based suicide prevention programs for Service members and their families.

In CY 2019, numerous research collaborations and data-sharing activities occurred across the Department, with the VA, other Federal agencies, universities, and nonprofits, to include the following efforts highlighted below. **Appendix F** provides additional research collaborations and data sharing efforts that occurred across the Department in CY 2019.

- Executive Order 13861 President's Roadmap to Empower Veterans and End a National Tragedy of Suicide (PREVENTS): Signed on March 5, 2019, this Executive Order directs DoD, VA, Department of Health and Human Services (HHS), Department of Labor, Department of Housing and Urban Development, Department of Energy, Department of Education, Department of Homeland Security (DHS), Office of Management and Budget, White House Office of Science and Technology Policy, as well as calling upon state, local, and private sector organizations, to develop and implement a national, comprehensive roadmap to prevent suicide among our Veterans and all Americans, including our military community. This roadmap, which was published on June 17, 2020, includes both research collaborations and data sharing.
- Executive Order 13822 Supporting our Veterans During Their Transition from Uniformed Service to Civilian Life: Signed on January 9, 2018, this Executive Order requires DoD, VA, and DHS to work together to create a robust Joint Action Plan to ensure seamless access to mental health care and suicide prevention resources for transitioning Service members and Veterans during their first year after retirement or separation from the military. This Joint Action Plan includes both data sharing and research collaborations. For example, this includes data sharing between the DoD Transition Assistance Program (TAP) to enable VA to contact transitioning Service members and recent Veterans at key intervals post-transition to provide information on access to peer support, availability of mental health care, and available local and national resources, among other information.
- Executive Order 13625 Improving Access to Mental Health Services for Veterans, Service Members, and Military Families: Signed on August 31, 2012, this Executive Order directed the DoD, VA, and HHS to ensure that Veterans, Service members, and their families have access to needed mental health services and support. This Executive Order called for the development of a National Research Action Plan<sup>65</sup> to improve the coordination of agency research and reduce the number of affected men and women through better prevention, diagnosis, and treatment. The National Research Action Plan, published in 2013, is a 10-year blueprint for interagency research to enhance the diagnosis, prevention, and treatment of Post-Traumatic Stress Disorder and Traumatic Brain Injury, and to improve suicide prevention. It strengthens ongoing and directs new collaboration activities.
- *DoD and VA Military Mortality Database (MMDB)*: The MMDB is the only mortality database that includes all causes of death for individuals with a history of military service, merging existing data from DoD and VA with death records acquired by CDC. DoD and

<sup>&</sup>lt;sup>65</sup> Department of Defense, Department of Veterans Affairs, Department of Health and Human Services, & Department of Education. (2013). National Research Action Plan: Responding to the Executive Order "Improving Access to Mental Health Services for Veterans, Service Members, and Military Families." Washington, DC, Departments of Defense, Veterans Affairs, Health and Human Services, and Education. https://obamawhitehouse.archives.gov/sites/default/files/uploads/nrap\_for\_eo\_on\_mental\_health\_august\_2013.pdf.

VA jointly manage access to this database for DoD and VA researchers, with more than 300 studies from DoD and VA researchers approved to access this data since 2014.

- *Military Suicide Research Consortium*: This consortium integrates and synchronizes DoD and civilian research efforts to implement a multidisciplinary research approach to suicide prevention. The consortium is funded by the Defense Health Program, managed by the Military Operational Medicine Research Program, and operated by Florida State University and the Denver Veterans Affairs Medical Center.
- DoD Suicide Event Report (DoDSER)-National Violent Death Reporting System (NVDRS) Database Linkage Effort: DoD is partnering with CDC to link NVDRS data on suicide deaths with DoDSER data, with a key outcome being detailed mapping of suicide deaths by U.S. county (and the characteristics of decedents in these concentrated areas). Identifying areas and localized populations with high suicide rates will help enable the allocation of suicide prevention resources where and to whom they are most needed.
- *The National Action Alliance for Suicide Prevention*: This Action Alliance brings together more than 250 national partners from public and private sectors, including DoD, to advance the National Strategy for Suicide Prevention. This forum allows for sharing the latest research findings that may inform policies and programs, as well as opportunities to take action on potential research topics.
- *DoD/VA Suicide Prevention Conference*: DoD and VA host a biennial suicide prevention conference representing the only national conference that specifically addresses suicide in the military and Veteran populations. The conference provides an opportunity for behavioral health and suicide prevention experts, clinicians, and community health providers from public and private sectors to share their expertise and learn about the latest research and promising practices for preventing suicide in our military and Veteran communities.
- The Study to Assess Risk and Resilience in Servicemembers–Longitudinal Study: This DoD-funded longitudinal research study is focused on creating practical, actionable information on risk reduction and resilience building for suicide, suicide-related behavior, and other mental and behavioral health issues in the military. The study is led by the Uniformed Services University of the Health Sciences and University of California-San Diego. Other major contributors include Harvard Medical School and the University of Michigan. A Federal Government steering committee, consisting of DoD, VA, National Institute of Mental Health, and Military Service members, oversees the project goals and objectives.

## Conclusion

The Department is deeply committed to ensuring the health, safety, and well-being of our Service members and military families. We embrace a public health approach to suicide prevention that recognizes suicide as a complex interaction between environmental, psychological, biological, and social factors. We are committed to addressing suicide comprehensively, and our efforts address the many aspects of life that impact suicide. The Department has made strides in our suicide prevention efforts. Yet, we recognize there is more work to be done to advance and adapt our efforts. We continue to enhance support to our entire military community by providing evidence-based policies and programs and encouraging positive help-seeking behaviors, eliminating stigma, and increasing visibility and access to critical resources.

This second Annual Suicide Report reflects the Department's continued efforts to increase transparency and accountability, which we believe strengthens our program oversight and policies and assists the Department in its commitment to prevent this tragedy. We continue to work to effectively capture Service member and military family suicide deaths and report these data in a transparent and timely manner each year.

The Department will also continue to take a focused approach to program evaluation to assess existing policies and programs, as well as pilot new evidence-informed initiatives gathered from the ever-evolving science on suicide prevention. This includes ensuring our policies and programs are crafted within a broader, evidence-based, violence prevention framework that address the risk and protective factors shared by multiple readiness-detracting behaviors. To achieve our goals, we must also continue robust research collaborations, data sharing, outreach, and other key efforts with national and local organizations, such as other Federal agencies, nonprofit organizations, and academia. This report highlights some of those recent efforts, and we look forward to the way ahead, strengthening current alliances and building new strategic collaborations to prevent suicides among our Service members and military families.

Suicide is preventable. The Department will continually work to prevent the risk for suicide and stigma for seeking help – along with increasing protective factors through stakeholder and community engagement. The Service members and military families we serve have earned nothing less.

## **Appendix A: Section 741, National Defense Authorization Act (NDAA) for FY 2020 Requirements**

Section 741 of the FY 2020 NDAA requires the DoD to submit an annual report on suicide among members of the Armed Forces to Congress. The following table lists each of the requirements, identifying where they are specifically addressed in this report (or the forthcoming CY 2019 DoDSER Annual Report).

Requirement	Location
The number of suicides involving a dependent of a member.	p. 6; 19-23
A description of any research collaborations and data sharing by the DoD with the Department of Veterans Affairs, other departments or agencies of the Federal Government, academic institutions, or non-governmental organizations.	p. 30-32; Appendix F
Identification of a research agenda for the DoD to improve the evidence base on effective suicide prevention treatment and risk communication. The <i>DoD Suicide Prevention Research Strategy FY 2020-2030</i> is accessible at https://mrdc.amedd.army.mil/assets/docs/DoD_Suicide_Prevention_Research_Strategy.pdf	p. 30
The availability and usage of the assistance of chaplains, houses of worship, and other spiritual resources for members of the Armed Forces who identify as religiously affiliated and have attempted suicide, have experienced suicidal ideation, or are at risk of suicide, and metrics on the impact these resources have in assisting religiously affiliated members who have access to and utilize them compared to religiously affiliated members who do not.	Appendix D
A description of the effectiveness of the policies developed pursuant to section 567 of the NDAA for FY 2015 (Public Law 113–291; 10 U.S.C. 1071 note) and section 582 of the NDAA for FY 2013 (Public Law 112–239; 10 U.S.C. 24 1071 note), including with respect to— (i) metrics identifying effective treatment modalities for members of the Armed Forces who are at risk for suicide (including any clinical interventions involving early identification and treatment of such members); (ii) metrics for the rate of integration of mental health screenings and suicide risk and prevention for members during the delivery of primary care for such members; (iii) metrics relating to the effectiveness of suicide prevention and resilience programs and preventative behavioral health programs of the DoD (including those of the military departments and the Armed Forces); and (iv) metrics evaluating the training standards for behavioral health care providers to ensure that such providers have received training on clinical best practices and evidence-based treatments.	p. 25-26; Appendix E
The number of suicides, attempted suicides, and known cases of suicidal ideation involving a member of the Armed Forces, including the reserve components thereof, listed by Armed Force.	CY 2019 DoDSER
<ul> <li>The number of suicides, attempted suicides, or known cases of suicidal ideation that occurred during each of the following periods:</li> <li>(i) The first 180 days of the member serving in the Armed Forces.</li> <li>(ii) The period in which the member is deployed in support of a contingency operation.</li> </ul>	CY 2019 DoDSER
During the first 180 days of the Service member serving in the Armed Forces: the initial recruit training location of Service members who died by suicide, attempted suicide, or are known cases of suicidal ideation.	CY 2019 DoDSER

## **Appendix B: Common Suicide Misconceptions**

Misconceptions about contextual factors and suicide, more broadly, can hinder suicide prevention efforts in our military community and across our Nation. Knowing the facts may allow us to take life-saving steps to help our loved ones. Given the importance of dispelling misconceptions in suicide prevention, the following section contains misconceptions that were published in the CY 2018 ASR (numbers 6–10), along with five new misconceptions and facts (numbers 1–5).

MISCONCEPTION #1: Suicide is not impulsive.

**FACTS:** Some suicide attempts or deaths can happen without warning and within a short span of time. **Research shows it can take less than 10 minutes between thinking about suicide to acting on it.** Because it can happen quickly, putting time and distance between a person at risk and a means for suicide is an effective way to prevent death.<sup>66,67,68,69,70</sup>

MISCONCEPTION #2: Owning a firearm is not associated with suicide risk.

**FACTS:** Owning a firearm does not *cause* someone to be suicidal; however, **having a loaded firearm at home may increase the risk of dying by suicide by four to six times.**<sup>71,72</sup> Some preliminary research indicates that, although nearly half of Service members may possess a firearm, only one in three may safely store their firearms in the home.<sup>73,74,75</sup>

MISCONCEPTION #3: Suicidal behavior is hereditary.

**FACTS:** Suicidal behavior is complex. Socioeconomic and sociocultural factors are some of the factors that contribute to the risk for suicide. Many people have one or more risk factors and are not suicidal. **There is no genetic predisposition to suicide – that is, it does not "run in the family."**<sup>76</sup> Although there may be an over-representation of suicide in some families, behaviors such as suicide ideation and/or attempts do not transmit genetically. Members of families may

<sup>&</sup>lt;sup>66</sup> Simon, T. R., Swann, A. C., Powell, K. E., Potter, L. B., Kresnow, M. J., & O'Carroll, P. W. (2001). Characteristics of impulsive suicide attempts and attempters. *Suicide and Life-Threatening Behavior*, 32(1 Suppl), 49-59.

 <sup>&</sup>lt;sup>67</sup> Swann, A. C., Lijffijt, M., O'Brien, B., & Mathew, S. J. (2020). Impulsivity and suicidal behavior. *Current Topics in Behavioral Neurosciences*.
 <sup>68</sup> Anestis, M. D., Soberay, K. A., Gutierrez, P. M., et al. (2014). Reconsidering the link between impulsivity and suicidal behavior. *Personality and Social Psychology Review*, 18(4), 366-386.

<sup>&</sup>lt;sup>69</sup> Klonsky, E., & May, A. (2010). Rethinking impulsivity in suicide. *Suicide and Life-Threatening Behavior*, 40(6), 612–619.

<sup>&</sup>lt;sup>70</sup> Henn, M., Barber, C., & Hemenway, D. (2019). Involving firearm stakeholders in community-based suicide prevention efforts. *Current Epidemiology Reports*, 6(2), 231-237.

<sup>&</sup>lt;sup>71</sup> Dempsey, C. L., Benedek, D. M., Zuromski, K. L., Riggs-Donovan, C., Ng, T. H. H., Nock, M. K., & Ursano, R. J. (2019). Association of firearm ownership, use, accessibility, and storage practices with suicide risk among US Army soldiers. *Journal of the American Medical Association Network Open*, 2(6), e195383-e195383.

<sup>&</sup>lt;sup>72</sup> Simonetti, J. A., Dorsey Holliman, B., Holiday, R., Brenner, L. A., & Monteith, L. L. (2020). Firearm-related experiences and perceptions among United States male veterans: A qualitative interview study. *PLoS one*, *15*(3), e0230135.

<sup>&</sup>lt;sup>73</sup> Bryan, C. J., Bryan, A. O., Anestis, M. D., Khazem, L. R., Harris, J. A., May, A. M., & Thomsen, C. (2019). Firearm availability and storage practices among military personnel who have thought about suicide. *Journal of the American Medical Association Network Open*, 2(8), e199160-e199160.

<sup>&</sup>lt;sup>74</sup> Crifasi, C. K., Doucette, M. L., McGinty, E. E., Webster, D. W., & Barry, C. L. (2018). Storage practices of US gun owners in 2016. *American Journal of Public Health*, 108(4), 532-537.

<sup>&</sup>lt;sup>75</sup> Cottrell, B. (2019). *Suicide throughout military personnel and veterans: A literature review*. (Graduate thesis). Augsburg University.

<sup>&</sup>lt;sup>76</sup> Edwards, A. C., Ohlsson, H., Mościcki, E. K., Sundquist, J., Sundquist, K., & Kendler, K. S. (2019). Geographic proximity is associated with transmission of suicidal behaviour among siblings. *Acta Psychiatrica Scandinavica*, *140*(1), 30-38.

share the same environmental stressors, and the death by suicide of one family member may well raise the awareness of suicide as an option for other family members.<sup>77,78,79</sup>

**MISCONCEPTION #4:** Most military firearm deaths are by combat.

FACTS: Most firearm deaths of Service members are the result of suicide (83.0%), as compared to combat (3.5%), accident (1.8%), or homicide (9.3%).<sup>80</sup>

MISCONCEPTION #5: Only mental health professionals can help individuals who are at risk for suicide.

FACTS: A public health approach to suicide prevention includes mental health professionals, but everyone has a role to play in preventing suicide. Friends, family, and the community can all help individuals who are at risk for suicide. Prevention of suicide cannot be accomplished by one person, organization, or institution alone; it requires support from the whole community. For example, financial distress is one of the risk factors for suicide that can be mitigated with help from financial counselors.<sup>81</sup>

**MISCONCEPTION #6:** The military suicide rate is higher than the U.S. general population.

**FACTS:** On the surface, suicide among the military population for CY 2019 appears to be higher than the U.S. population. However, the direct comparison of military suicide rates and the U.S. population is misleading. In the U.S., males have nearly four times higher risk for suicide death than females.<sup>82</sup> As the U.S. military comprises a higher percentage of males (82%) compared to the U.S. population (49%),<sup>83</sup> it is not surprising the suicide rate is higher in the military. Age is another demographic factor associated with suicide risk, and also varies substantially between the military and U.S. population. The U.S. military has a higher percentage of younger individuals (mean age=29.6) 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 accounting for these factors, the CY 2019 military suicide rates are comparable to U.S. population rates for the Active Component and National Guard, and lower for the Reserve. These comparisons are preliminary since the U.S population rate is from CY 2018 (latest available) and the U.S. population rates continue to increase over time.

**MISCONCEPTION #7:** 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

<sup>&</sup>lt;sup>77</sup> Brent, D. A., & Mann, J. J. (2006). Familial pathways to suicidal behavior understanding and preventing suicide among adolescents. New England Journal of Medicine, 355(26), 2719-2721.

<sup>78</sup> Coon, H., Darlington, T., Pimentel, R., et al. (2013): Genetic risk factors in two Utah pedigrees at high risk for suicide. Translational Psychiatry, 3(11), e325-e325.

<sup>&</sup>lt;sup>79</sup> Cheung, S., Woo, J., Maes, M. S., & Zai, C.(2020). Suicide epigenetics, a review of recent progress. Journal of Affective Disorders, 265, 423-438. <sup>80</sup> Averages calculated using the National Death Index (2013 - 2017).

<sup>81</sup> Stone, D. M., Holland, K. M., Bartholow, B., Crosby, A. E., 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>82</sup> Centers for Disease Control and Prevention (n.d.). *Web-based Injury Statistics Query and Reporting System (WISQARS).* Retrieved July 17, 2020

from http://www.cdc.gov/injury/wisqars/index.html.

<sup>83</sup> U.S. Census Bureau. (n.d.). Quick facts: United States. Retrieved July 17, 2020 from https://www.census.gov/quickfacts/fact/table/US/PST045219.

**Service members.**<sup>84,85</sup> In addition, of the Service members who died by suicide in CY 2018, 47.1% of Active Component and 66.1% of Reserve Component suicide decedents, respectively, had no history of deployment.<sup>86</sup> 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 within a year after joining the military.<sup>87,88</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 #8:** The majority of Service members who die by suicide had a mental illness.

**FACTS:** Less than half (45.3% Active Component and 44.4% Reserve Component) of Service members who died by suicide had at least one current or past mental health diagnosis. The two most common diagnoses were (1) Adjustment Disorder (clinically significant distress or impairment in response to a stressor), and (2) Substance Use Disorder (misuse or abuse of mood-altering substances).<sup>89</sup> Research among both the military population and the U.S. population has refuted the exclusive causal connection between mental illness and suicide. Although 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>90</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>91</sup>

**MISCONCEPTION #9:** 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>92</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>93</sup> Further, research has debunked the misconception that people

<sup>&</sup>lt;sup>84</sup> LeardMann, C. A., Powell, T. M., Smith, T. C., Bell, M. R., Smith, B., Boyko, E. J., et al. (2012). Risk factors associated with suicide in current and former US military personnel. *Journal of the American Medical Association*, *310*(5), 496-506.

<sup>&</sup>lt;sup>85</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.

<sup>&</sup>lt;sup>86</sup> Tucker, J., Smolenski, D. J., & Kennedy, C. H. (2019). Department of defense suicide event report: Calendar year 2018 annual report. Psychological Health Center of Excellence. https://www.pdhealth.mil/sites/default/files/images/docs/TAB\_B\_2018\_DoDSER\_Annual\_Report-508%20final-9MAR2020.pdf.

<sup>&</sup>lt;sup>87</sup> Bryan, C. J., Griffith, J. E., Pace, B. T., Hinkson, K., Bryan, A. O., Clemans, T. A. & 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 and Life Threatening Behavior*, *45*(5), 633-649.

<sup>&</sup>lt;sup>88</sup> Ursano, R. J., Kessler, R. C., Naifeh, J. A., et al. (2018). 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). *Journal of the American Medical Association Psychiatry*, 75(6), 596–604.

 <sup>&</sup>lt;sup>89</sup> U.S. Census Bureau. (2019). Quick facts: United States. Retrieved from https://www.census.gov/quickfacts/fact/table/US/PST045219
 <sup>90</sup> Coon, H., Darlington, T., Pimentel, R., et al. (2013): Genetic risk factors in two Utah pedigrees at high risk for suicide. *Translational Psychiatry*; 3(11), e325-e325

<sup>&</sup>lt;sup>91</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.

<sup>&</sup>lt;sup>92</sup> Yip , P. S., Caine, E., Yousuf, S., Chang, S. S., Wu, K. C., & Chen, Y. Y. (2012). Means restriction for suicide prevention. *Lancet (London, England)*, 379(9834), 2393-2399.

<sup>&</sup>lt;sup>93</sup> Harvard T. H. Chan School of Public Health. (n.d.). *Means matter website*. Retrieved July 17, 2020 from http://www.hsph.harvard.edu/means-matter.

substitute methods of suicide. If access to the preferred lethal means of suicide is limited, other forms are not substituted.<sup>94,95</sup>

MISCONCEPTION #10: Talking about suicide will lead to and encourage suicide.

**FACTS: Talking about suicide in a supportive way can help prevent suicide**.<sup>96</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>97</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. Approximately 31% of Active Component members and 34% of Reserve Component members who died by suicide communicated intent for self-harm prior to the event.<sup>98</sup> Talking about suicide gives the at-risk individual 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>99</sup>

<sup>&</sup>lt;sup>94</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.

<sup>&</sup>lt;sup>95</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.

<sup>&</sup>lt;sup>96</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.

<sup>&</sup>lt;sup>97</sup> Tadros, G., & Jolley, D. (2001). The stigma of suicide. *British Journal of Psychiatry*, 179(2), 178-178.

<sup>&</sup>lt;sup>98</sup> Tucker, J., Smolenski, D. J., & Kennedy, C. H. (2019). Department of defense suicide event report: Calendar year 2018 annual report. Psychological Health Center of Excellence. https://www.pdhealth.mil/sites/default/files/images/docs/TAB\_B\_2018\_DoDSER\_Annual\_Report-508%20final-9MAR2020.pdf.

<sup>&</sup>lt;sup>99</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), 1023-1030.

# **Appendix C: Example DoD Initiatives Aligned with the Seven Broad Suicide Prevention Strategies**

The Department has a number of efforts underway to support our Service members and military families. The following table – organized by the seven broad, evidence-informed strategies – provides updates to initiatives highlighted in the CY 2018 ASR and introduces other new initiatives underway. Note that these examples are by no means an exhaustive list.

Strengthening Economic Supports				
Financial Literacy	Status: Ongoing			
Financial education, including financial readiness common military training, through a variety of programs, resources, and modalities. One-on-one personal financial counseling available at installations and remotely. Aims to increase access and reduce barriers to support; develop and enhance knowledge and skills to manage financial stressors among young and enlisted Service members.	DoD and the Military Services continue to provide financial education and counseling. Financial education includes required financial literacy common military training at key personal and professional life events and a variety of additional resources to ensure Service members have easy access to educational content. Personal financial counseling is available from accredited professionals at installations and remotely via Military OneSource. Survey findings indicate 44 percent of Active Component Service members received support from an installation financial counselor. <sup>100</sup> Military OneSource is engaged in an outreach effort for Service members transitioning to civilian life to ensure awareness of its comprehensive services to include financial counseling.			
Strengthening Access and Delivery of Suicid	le Care			
Zero Suicide Pilot Status: Pilot complete				
Train medical personnel on suicide risk assessment, safety planning in Air Force hospitals and clinics (at five installations for the pilot). Aims to increase access to care and reduce barriers to receiving support.	Pilot results found that 88% of Military Treatment Facility staff across the five participating installations reported confidence in administering the Zero Suicide protocols, and 82% reported they were likely to use the Columbia-Suicide Severity Rating Scale for screening and assessment. A reduction in psychiatric hospitalizations and suicide attempts at installations that participated in the pilot compared to the control was also observed.			
	<b>New initiative.</b> The Military Operational Medicine Research Program, in collaboration with Pennsylvania State University, has initiated a second phase of the pilot and will continue to analyze and evaluate the intervention.			

<sup>&</sup>lt;sup>100</sup> Department of Defense, Office of People Analytics. (2018a). 2018 Status of forces survey of active duty members, tabulation of responses. https://dhra.deps.mil/sites/OPA/opa-survey/SitePages/Home.aspx.

Resources Exist, Asking Can Help (REACH)	Status: Pilot began in CY 2019 (results expected
Barrier reduction training to familiarize Service	late CY 2020)
members with help-seeking resources.	After finalizing the REACH training materials in CY 2019, REACH is being pilot tested at multiple military
Aims to increase access to resources and reduce barriers to receiving support; develop and enhance skills to address life stressors among young and enlisted Service members.	installations in CY 2020. The results of the pilot (expected late CY 2020) will inform the decision to begin implementing REACH more broadly in DoD.
young and emisted betwee memoers.	<b>New initiative</b> . Additionally, a new pilot project recently began in CY 2020 to develop REACH training for military spouses.
National Guard Bureau (NGB) and	Status: Ongoing
Department of Veterans Affairs (VA) Vet Center Initiative <sup>101</sup> Enhance National Guard members' access to mental health care and support in remote areas via VA Readjustment Counseling Service (RCS) Vet Centers during training periods. Aims to increase access to care and reduce barriers to receiving support.	The NGB and VA RCS have partnered to provide greater access to behavioral health services for National Guard members and their families. RCS Vet Center teams offer early identification, counseling, and referral support to geographically dispersed Service members, to include services provided during training periods with the intent of increasing service provision, improving transitions to civilian life, and supporting suicide prevention efforts. This allows the opportunity for NGB to improve National Guard force readiness, transition adjustment, and is integral to suicide prevention. The initiative, which began in CY 2019, has seen an increase in National Guard members receiving services during drill weekends (14%) and at RCS Vet Center locations (44%), compared to last year.
	,

<sup>&</sup>lt;sup>101</sup> In CY 2019, the National Guard Bureau and VA Mobile Vet Center Initiative, as reported in the CY 2018 Annual Suicide Report, was renamed as the VA Readjustment Counseling Service (RCS) Vet Centers.

Creating Protective Environments	
Counseling on Access to Lethal Means (CALM) Training Pilot	Status: Phase 1 pilot complete; Phase 2 pilot project began in CY 2020
Training non-medical military providers on strategies to reduce access to lethal means and increase safe storage of lethal means. Aims to increase awareness of risk factors for suicide; increase safe storage of lethal means.	Phase 1 of the pilot trained Military and Family Life Counselors (MFLCs) and Military OneSource call center staff, with more than 2,000 counselors and call center staff completing CALM training. Over 90% of the counselors and call center staff who completed the pre- and post-test, experienced increased knowledge in terms of means safety practices following the CALM training. These evaluation findings have prompted continued CALM training for MFLCs and Military OneSource call center going forward. The next phase of this pilot expands training to others in the military community (e.g., chaplains, spouses, and community counselors) and began in CY 2020.
Social Norms for Safe Firearm Storage	Status: Began in CY 2019; messaging development expected to be completed late CY 2020
Messaging on safe firearm storage to promote firearm safety practices as an acceptable norm and decrease risk for suicide. Aims to increase awareness of risk factors for suicide; increase safe storage of lethal means.	Focus groups tested firearm safety messages at multiple military installations to learn which messages resonate with Service members. Firearms safety messaging guidance developed through this project will be provided to the Military Services for use in communication and education efforts. <sup>102</sup>
Lethal Means Safety Video	Status: Began in CY 2019; video expected to be completed in late CY 2020
Educational video to encourage military families to keep methods of suicide safe and secure. Aims to increase awareness of risk factors for suicide; increase safe storage of lethal means.	<b>New initiative</b> . This project aims to develop an educational video for Service members and families on the importance of lethal means safety – storing firearms and medications safely.
Promoting Connectedness	
Peer-to-Peer Support through Military OneSource Military OneSource consultants are Veterans, National Guard/Reserve members, and military spouses.	Status: Ongoing DoD effort In FY 2019, Military OneSource provided 705 peer support consultations.
Aims to increase access and reduce barriers to receiving support.	

<sup>&</sup>lt;sup>102</sup> Execution of the focus groups and project was delayed in CY 2020 by the COVID-19 pandemic travel and social distancing restrictions.

Non-Medical Counseling	Status: Ongoing DoD effort		
Military and Family Life Counselors (MFLCs) and Military OneSource face-to-face, in- person, chat, video counseling. Aims to increase access and reduce barriers to receiving support.	More than 90% of participants reported positive experiences with non-medical counseling provided through the MFLC and Military OneSource programs (e.g., how quickly they were connected to a counselor; how easy it was to make an appointment; continuity of care and confidentiality they received), and reported they were likely to use the non-medical counseling services again. <sup>103</sup>		
Teaching Coping and Problem-Solving Skil	lls		
Rational Thinking – Emotional Regulation – Problem-Solving (REPS) Training Pilot	Status: Began in 2019; pilot expected to be completed in late CY 2021		
Interactive educational program to teach foundational skills to deal with life stressors early in military career. Aims to develop and enhance skills to address life stressors – among young and enlisted Service members in particular.	Initial pilot testing of REPS training with selected training instructors was completed in CY 2019. Feedback from the instructors indicated training procedures were acceptable, feasible to implement, and supported by leadership. Service member focus groups were conducted to refine and finalize the REPS curriculum. <sup>104</sup> Next steps include training pilot with Service members, including collection of evaluation data.		
Identifying and Supporting People at Risk			
Service Member Gatekeeper and Leadership Interventions Question-Persuade-Refer (QPR) training teaches Service members and others, including chaplains, to act as "gatekeepers" for individuals at risk to detect behavior changes or warning signs. Aims to increase awareness of risk factors for suicide.	Status: Ongoing According to recent Status of Forces Survey of Active Duty Members 2018 data, 78% of Service members indicated suicide prevention training was at least somewhat helpful (and of those, 48% indicating it was very to extremely helpful) in identifying and responding to suicidal behavior in others.		
Recognizing the Signs of Intent to Die by Suicide on Social Media Training Pilot	Status: On track to be completed at the end of CY 2020		
Teaches Service members how to recognize and respond to suicide warning signs on social media.	The video, titled <i>Simple Things Save Lives</i> , is currently being evaluated. The results of the evaluation (expected late CY 2020) will inform the decision to begin implementing more broadly across the DoD in CY 2021.		

 <sup>&</sup>lt;sup>103</sup> Trail, T. E., Martin, L. T., Burgette, L. F., May, L. W., Mahmud, A., Nanda, N., & Chandra, A. (2017). *An evaluation of US military non-medical counseling programs*. RAND Health Quarterly, 8(2). https://www.rand.org/pubs/research\_reports/RR1861.html.
 <sup>104</sup> REPS Training Pilot execution was delayed in CY 2020 by the COVID-19 pandemic travel and social distancing restrictions.

Status: Began in 2019; pilot expected to be completed in late CY 2021
This training, titled <i>Chaplains CARE</i> , is now available online through DoD's MilLife Learning website. Nearly 100 chaplains have been trained in the pilot thus far, with preliminary feedback being positive regarding course content and structure. The results of the pilot (expected late CY 2021) will inform the decision on whether to begin implementing more broadly across DoD.
Status: Began in CY 2019; ongoing
The National Guard Bureau is developing a data- driven tool to help leaders make more-informed decisions about the health and well-being of Service members. This effort began in CY 2019 and is ongoing.
Status: New initiative
Training and planning for the SOS curriculum began in 2019 by the DoD Educational Activity. The objectives of the SOS program are to decrease suicide and suicide attempts by increasing student knowledge and adaptive attitudes about depression; to encourage help-seeking for oneself or on behalf of a friend; to reduce the stigma of mental illness and acknowledge the importance of seeking help or treatment; and to engage parents and the school staff as partners in prevention. The curriculum is slated to be delivered to students in the 2020–2021 school year. <sup>106</sup>

<sup>&</sup>lt;sup>105</sup> Appendix D contains additional information in support of FY 2020 NDAA, Section 741, 2(G) reporting requirement: *The availability and usage of the assistance of chaplains, houses of worship, and other spiritual resources for members of the Armed Forces who identify as religiously affiliated and have attempted suicide, have experienced suicidal ideation, or are at risk for suicide, and metrics on the impact these resources have in assisting religiously-affiliated members who have access to and utilize them compared to religiously-affiliated members who do not.
<sup>106</sup> Execution of the in-person curriculum may be delayed in CY 2020 by the Coronavirus pandemic travel and social distancing restrictions, as the delivery of this curriculum is highly dependent on whether the school status is in-person. Decisions will be made at the school level.* 

Lessening Harms and Preventing Future Risk				
Postvention Toolkit	Status: Toolkit development complete and dissemination began in CY 2020			
Guide to providing safe bereavement support to unit/next of kin after suicide. Aims to support families and Service members affected by suicide; educate stakeholders on the role of chaplains in spiritual well-being of Service members and their families.	The <i>Postvention Toolkit for a Military Suicide Loss</i> is complete and is being disseminated across the Military Services.			
Safe Messaging and Reporting on Military Suicide	Status: Began in CY 2019; ongoing			
Determine how safe reporting guidelines <sup>107</sup> are followed by media when reporting DoD suicide deaths to inform if specific training, education, or engagements are needed with DoD Public Affairs Officers, military senior leaders, and/or media sources. Aims to increase awareness of risk factors for suicide.	A collaborative effort to ensure national safe reporting guidelines are understood and followed by Service Public Affairs Officers and DoD leaders. Curriculum development for Public Affairs Officers at the Defense Information School is underway. A safe messaging guide is also being developed for DoD leaders, with an expected CY 2020 completion date.			
DoD-Wide Annual Suicide Death Review Methodology	Status: Data collection began in 2019; ongoing			
Develop a standardized and unified public health theory-guided methodology to perform a DoD-wide review of military suicides. Aims to develop lessons learned to apply to future suicide prevention efforts.	Suicide expert review panels to pilot test this methodology are expected to be completed by the end of CY 2021. <sup>108</sup> Individual-, Service-, and DoD-level results of the panels will provide lessons learned and recommendations for future actions.			

 <sup>&</sup>lt;sup>107</sup> Reporting on Suicide. (2015). Best Practices and Recommendations for Reporting on Suicide. https://reportingonsuicide.org/wp-content/themes/ros2015/assets/images/Recommendations-eng.pdf.
 <sup>108</sup> DoD-Wide Annual Suicide Death Reviews execution was delayed in CY 2020 by the Coronavirus pandemic travel and social distancing

restrictions.

## **Appendix D: Chaplains and Other Spiritual Resources**

Spirituality is one of the domains of Total Fitness of Service members, and the Department encourages Service members and their families to seek spiritual help when stressed. Research indicates that spirituality and religious service attendance are associated with fewer divorces, better social support, and greater satisfaction with life – all of which help reduce the risk for suicide.<sup>109,110</sup> Chaplains play an important role in the promotion of spiritual well-being in Service members and their families, as well as the prevention of risk factors for suicide. Chaplains have been shown to be a first line of defense when it comes to caring for Service members who are coping with mental health issues<sup>111</sup> and with suicide ideation.

Chaplains promote spiritual fitness and resilience by integrating in units to provide religiousspiritual support, coordinating with support agencies in the community, and acting as primary advisors to commands at every echelon on religion, morals, ethics, and morale. Through programs such as Army Strong Bonds and the Air Force Religious Support Teams, chaplains coordinate with local commands and garrisons to develop religious and spiritual programs that increase wellness and spiritual fitness tailored to local needs. Navy Chaplains, in addition to playing a vital role in Resilience Promotion, also conduct marriage retreats/workshops, and facilitate Safe TALK/ASIST training. Chaplains and their assistants also help commanders in providing suicide prevention and awareness training for the military community.

Starting at basic training and through a Service member's military lifecycle, the Service member and their family are informed about chaplains and the services they provide through email, chapel websites, social media, and face-to-face visits. Integration of chaplains in military units increases their visibility and encourages Service members and family members to seek help.

Note that given the confidential nature of one-on-one interactions, limited data is collected for individuals who receive services from chaplains. However, surveys show that Service members have access to, utilize, and find these resources useful. A recent DoD survey found that 42% of Active Component Service members talked to a military chaplain or civilian religious or spiritual leader in the past year and 86% found it useful.<sup>112</sup> Similarly, 10% of Reserve Component Service members saw a military chaplain<sup>113</sup> in the past two years and 94% were satisfied with the services provided.<sup>114</sup>

Some of the Department's key spiritual services, resources, and programs, as well as training provided to chaplains to enhance their knowledge and skills with regard to suicide prevention are highlighted below.

<sup>&</sup>lt;sup>109</sup> VanderWeele, T. J. (2017). Religion and health: A synthesis. In M. J. Balboni & J. R. Peteet (Eds.), *Spirituality and religion within the culture of medicine: From evidence to practice* (pp. 357–401). Oxford University Press.

<sup>&</sup>lt;sup>110</sup> VanderWeele, T. J., Li, S., Tsai, A., & Kawachi, I. (2016). Association between religious service attendance and lower suicide rates among US women. *Journal of the American Medical Association Psychiatry*. 73(8), 845-51.

<sup>&</sup>lt;sup>111</sup> Kopacz, M. S., Nieuwsma, J. A., Jackson, G. L., Rhodes, J. E., Cantrell, W. C., Bates, M. J., & Meador, K. G. (2016). Chaplains' engagement with suicidality among their service users: findings from the VA/DoD integrated mental health strategy. *Suicide and Life Threatening Behavior*, *46*(2), 206-212.

<sup>&</sup>lt;sup>112</sup> Department of Defense, Office of People Analytics. (2018a). 2018 Status of forces survey of active duty members, tabulation of responses. https://dhra.deps.mil/sites/OPA/opa-survey/SitePages/Home.aspx.

<sup>&</sup>lt;sup>113</sup> Note: The Status of forces survey for reserve component members assesses utilization of military programs or services, including military chaplains. This survey does not assess Reserve Component Service member utilization of civilian religious or spiritual leaders.

<sup>&</sup>lt;sup>114</sup> Department of Defense, Office of People Analytics. (2018b). 2018 Status of forces survey of reserve component members, tabulation of responses. https://dhra.deps.mil/sites/OPA/opa-survey/SitePages/Home.aspx.

#### **Community-Based Support**

Chaplains and other religious support staff play a critical role in monitoring and supporting the well-being of Service members and their immediate support structure. Chaplains serve as members of installation-based, multidisciplinary teams and councils that help promote an understanding of the potential for suicide in the community. Installation chaplains conduct education awareness programs, in partnership with and support of suicide prevention program managers, for family members to help them recognize the signs of increased suicide risk and to learn about referral sources for friends and family members. Educational programs currently focus on three groups: parents, teenagers, and spouses.

Through the Marine Corps' Wounded Warrior Battalion, Navy's Safe Harbor, and in military hospitals, among other efforts, chaplains provide pastoral care to Service members to help them heal from different levels of trauma. The Services also include chaplains as key members of their respective Suicide Response Teams to provide postvention support. These teams generally consist of chaplains, behavioral health professionals, other counselors, and helping agencies, as appropriate. The teams respond to any known or suspected suicide by offering additional support to unit commanders, ensuring that proper guidelines are followed for local media coverage, and monitoring completion and submission of appropriate reports.

#### **Resiliency Promotion**

Chaplains within the Military Services are integrated into Service-wide resiliency efforts. A few examples are highlighted below. For instance, the Air Force's spiritual programs include marriage and family retreats/workshops, singles programming, Chaplain Corps-facilitated podcasts on resiliency topics, and SafeTALK/Applied Suicide Intervention Skills Training led by chapel personnel to equip Service members with skills for suicide intervention. The Air Force Chaplains Corps also played a key role in developing the Spiritual Domain resources for the Air Force's CY 2019 Resilience Tactical Pause, and their Religious Support Teams have begun using virtual reality technology in deployed settings to help support Service members and provide virtual connections with family back home. Army chaplains are trained and competent as pastoral counselors to enhance broad holistic mental health and wellness skills within our Service members and their families. As a final example, Navy chaplains work closely with recruits at boot camp through the Warrior Toughness program to equip Sailors with resources and resiliency skills even before they are sent to their first assignment.

#### **Training for Chaplains**

All of the Military Services have implemented the *Question-Persuade-Refer* training framework as part of their suicide prevention efforts to empower Service members and others in the military community, including chaplains, to act as "gatekeepers" to recognize the warning signs of suicide, to ask individuals in trouble if they are suicidal, and to refer the individual to a trained helping professional. Specifically, chaplains and their assistants receive suicide prevention training, which includes recognizing potential warning signs, suicidal risk estimation, conducting unit suicide prevention training, and intervention techniques. Chaplains and religious support personnel routinely coordinate with local behavioral health personnel in a multidisciplinary team approach to

refer individuals in need of clinical care and to ensure suicide prevention information provided to units meets professional evidence-based standards.

To enhance training for chaplains with respect to suicide prevention, the Department implemented a training pilot in CY 2016 titled, "Training Chaplains in Evidence-Based and Integrated Care to Promote Suicide Prevention and Mental Health." The training aimed to better equip chaplains in providing care to Service members and Veterans with mental health issues and suicidal thoughts. Based on positive evaluation results, the training is now widely available to DoD and VA chaplains through the Mental Health Integration for Chaplain Services training program.<sup>115</sup> Chaplains are trained on a multitude of topics, including spirituality and linkages to mental health, problem solving, moral injury, resilience, and suicide prevention.

The United States Special Operations Command developed a Special Operations Forces Suicide Prevention Workbook for Chaplains. This workbook is intended to train chaplains on how to appropriately handle suicidal thoughts and behaviors within this unique community. Two other examples include: the Army Chaplain Corps enhances professionalization of the chaplains through two advanced professional training and certification programs regarding Family Life and Hospital/Institutional chaplaincy care; and the Air Force Chaplain Corps College began using augmented reality in the Basic Chaplain Course to use avatars of live actors to simulate working with distressed Service members.

The Department is also currently piloting or implementing additional initiatives that aim to further enhance our chaplains' skillset with respect to suicide prevention. For example, the Department is currently piloting *Cognitive Behavior Strategies for the Prevention of Suicide* Training, designed to teach chaplains cognitive behavioral strategies aimed at reducing suicide risk in our Service members and their families. The Department has also developed and begun disseminating a *Postvention Toolkit for a Military Suicide Loss* for DoD postvention providers, including chaplains, regarding evidence-informed practices for delivery of bereavement and postvention services to unit members and next-of-kin who survive a military suicide loss.

The Department is committed to preventing suicide among Service members and families by leveraging valuable resources for spiritual care. Although the Department will continue to train, educate, and utilize chaplains, discussions about additional ways to integrate chaplains and other spiritual resources in suicide prevention efforts continue to be explored.

<sup>&</sup>lt;sup>115</sup> Department of Veterans Affairs, Mental Health and Chaplaincy. (n.d.). *Mental health integration for chaplain services*. https://www.mirecc.va.gov/mentalhealthandchaplaincy/docs/MHICSBrochure2018to19.pdf.

# **Appendix E: Program Evaluation**

Suicide is a complex and multifaceted phenomenon that requires a comprehensive, holistic approach to prevention. Collectively, DoD policy, programs, and initiatives are designed to address various suicide risk and protective factors that have been shown to impact suicide within our military community. Likewise, our program evaluation efforts must account for such complex suicide risk and protective factors, examining the effectiveness of our ongoing suicide prevention efforts more holistically as a collective system.

To evaluate the effectiveness of the Department's suicide prevention efforts, the Department uses an enterprise-wide program evaluation framework, which integrates the seven broad, evidenceinformed strategies from CDC, and is aligned with the 2015 Defense Strategy for Suicide Prevention goals.

The following table provides examples of baseline metrics for our suicide prevention efforts that align with proximal outcomes for each of the seven broad strategies. It includes examples of suicide prevention initiatives underway that align with each strategy and are designed to impact the proximal outcomes; these illustrative examples are by no means an exhaustive list.

	Connecting Seven Evidence-Informed Strategies to Proximal Outcomes and Baseline Metrics				
7 Evidence- Informed Strategies	Examples DoD Initiatives	Proximal Outcomes	Example Baseline Metrics		
Strengthen Economic Supports	<ul> <li>Financial Readiness Required Common Military Training</li> <li>Financial Counseling (Installation and Military OneSource)</li> </ul>	<ul> <li>Increased Access to Financial Support</li> <li>Decreased Financial Stressors</li> </ul>	<ul> <li>17% of Active Component Service members (17% enlisted, 12% officers) reported that, compared to 12 months ago, their financial situation was much worse or somewhat worse.<sup>116</sup></li> <li>14% of Reserve Component Service members (16% enlisted, 12% officers) reported that, compared to 12 months ago, their financial situation was much worse or somewhat worse.<sup>117</sup></li> <li>5% of Active Component Service member suicide decedents and 5% of Active Component Service members who attempted suicide experienced excessive debt or bankruptcy within 90 days prior to the suicide event.<sup>118</sup></li> <li>10% of Reserve Component Service members who attempted suicide experienced excessive debt or bankruptcy within 90 days prior to the suicide event.<sup>118</sup></li> <li>Economic and financial strain, when combined with other factors, may increase an individual's risk for suicide or may indirectly increase risk by exacerbating related physical and mental health concerns.<sup>119</sup></li> </ul>		

<sup>&</sup>lt;sup>116</sup> Department of Defense, Office of People Analytics. (2018a). 2018 Status of forces survey of active duty members, tabulation of responses. https://dhra.deps.mil/sites/OPA/opa-survey/SitePages/Home.aspx.

<sup>&</sup>lt;sup>117</sup> Department of Defense, Office of People Analytics. (2018b). 2018 Status of forces survey of reserve component members, tabulation of responses. https://dhra.deps.mil/sites/OPA/opa-survey/SitePages/Home.aspx.

<sup>&</sup>lt;sup>118</sup> Tucker, J., Smolenski, D. J., & Kennedy, C. H. (2019). *Department of defense suicide event report: Calendar year 2018 annual report*. Psychological Health Center of Excellence. https://www.pdhealth.mil/sites/default/files/images/docs/TAB\_B\_2018\_DoDSER\_Annual\_Report-508%20final-9MAR2020.pdf.

<sup>&</sup>lt;sup>119</sup> Ursano, R. J., Kessler, R. C., Stein, M. B., et al. (2016). Risk factors, methods, and timing of suicide attempts among US army soldiers. *Journal of the American Medical Association Psychiatry*, 73(7), 741-749.

	Connecting Seven Evidence-Informed Strategies to Proximal Outcomes and Baseline Metrics			
7 Evidence- Informed Strategies	Examples DoD Initiatives	Proximal Outcomes	Example Baseline Metrics	
Strengthen Access and Delivery of Suicide Care	<ul> <li>Resources Exist, Asking Can Help (REACH) Training Pilot</li> <li>Zero Suicide Pilot</li> <li>National Guard Bureau and VA Readjustment Counseling Service (RCS) Vet Center Initiative</li> </ul>	<ul> <li>Improved Access to Resources and Care</li> <li>Reduced Barriers to Care</li> <li>Increased Help- Seeking</li> </ul>	<ul> <li>In the past six months, 16% of Active Component Service members talked to a counselor (17% enlisted and 12% officers)<sup>116,120</sup></li> <li>Active Component Service members were most likely to report the following as reasons for not seeking help with personal problems (e.g., relationship, financial): loss of privacy/ confidentiality (68% overall, 66% enlisted, 74% officers), fear of being perceived as "broken" by chain of command or peers (67% overall, 65% enlisted, 73% officers), negative impact to their career (65% overall, 63% enlisted, 72% officers), and not knowing who to turn to (50% overall, 51% enlisted, 43% officers).<sup>116</sup></li> </ul>	
Create Protective Environments	<ul> <li>Counseling on Access to Lethal Means (CALM) Training Pilot</li> <li>Social Norms for Safe Firearm Storage Initiative</li> <li>Lethal Means Safety Video</li> </ul>	<ul> <li>Reduced Lethality of Suicidal Behavior</li> <li>Increased Safe Storage Practices</li> </ul>	<ul> <li>Method of death/injury is a proxy for lethality. The most common methods of suicide behavior in Service members were firearms with suicide decedents (60% and 80% for Active and Reserve Component, respectively), and drugs/alcohol for those who attempted suicide (60% and 51% for Active and Reserve Component, respectively).<sup>118</sup></li> <li>A study examining lethality rates for suicide methods found firearms to be most lethal – at 90% lethal – followed by hanging (53%), and drugs (2%).<sup>121</sup> If access to the most lethal means of suicide is limited, other means are not substituted, therefore the suicide rate may reduce<sup>122,123</sup></li> </ul>	

<sup>&</sup>lt;sup>120</sup> Note: The Status of forces survey for active duty members does not define counselor, and may include military and civilian, medical or non-medical, providers.

<sup>&</sup>lt;sup>121</sup> Conner, A., Azrael, D., & Miller, M. (2019). Suicide case-fatality rates in the United States, 2007 to 2014: A nationwide population-based study. *Annals of Internal Medicine*, *171*(2), 885-895.

<sup>&</sup>lt;sup>122</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.

<sup>&</sup>lt;sup>123</sup> Barber, C. W., & Miller, M. J. (2014). Reducing a suicidal person's access to lethal means of suicida: A research agenda. *American Journal of Preventive Medicine*, 47(3), S264–S272.

	Connecting Seven Evidence-Informed Strategies to Proximal Outcomes and Baseline Metrics				
7 Evidence- Informed Strategies	Examples DoD Initiatives	Proximal Outcomes	Example Baseline Metrics		
Promote Connectedness	<ul> <li>Peer-to-Peer Support through Military OneSource</li> <li>Non-Medical Counseling</li> </ul>	<ul> <li>Increased Feelings of Connectedness</li> <li>Increased Unit Cohesion</li> <li>Increased Morale</li> </ul>	<ul> <li>71% of Service members overall (69% of Active Component and 77% of Reserve Component) reported a high sense of connectedness with others (ranging from 64% for junior enlisted to 85% for senior officers).<sup>124</sup></li> <li>70% of Active Component Service members overall reported strong unit cohesion (68% enlisted and 78% officers).<sup>1167</sup></li> <li>67% of Active Component Service members reported having at least moderate morale within their unit (of which, 26% reported having high to very high unit morale). 64% of enlisted Service members reported having at least moderate morale within their unit (of which, 24% reported having high to very high unit morale), and 82% of officers reported having at least moderate morale within their unit (of which, 24% reported having high to very high unit morale), and 82% of officers reported having at least moderate morale within their unit (of which, 24% reported having high to very high unit morale), and 82% of officers reported having at least moderate morale within their unit (of which, 24% reported having high to very high unit morale), and 82% of officers reported having at least moderate morale within their unit (of which, 36% reported having high to very high unit morale). <sup>1167</sup></li> <li>56% of Reserve Component Service members reported they were satisfied or very satisfied with their unit's morale (and 22% reported they were neither satisfied nor dissatisfied); 55% of enlisted Service members reported they were neither satisfied nor dissatisfied); 67% of officers reported they were satisfied or very satisfied with their unit's morale (and 23% reported they were neither satisfied nor dissatisfied); 67% of officers reported they were neither satisfied nor dissatisfied). <sup>117,125</sup></li> </ul>		
Teach Coping and Problem- Solving Skills	<ul> <li>Rational Thinking – Emotional Regulation – Problem-Solving</li> </ul>	<ul> <li>Increased Knowledge of Coping and Problem-Solving Skills</li> </ul>	• 16% of Active Component Service members sought counseling in the past six months (17% enlisted and 12% officers). <sup>126</sup> Of those, the top two topics they talked to a counselor about were coping with stress (77% overall, 77% enlisted, 75% officers) and problem-solving (53% overall, 55% enlisted, 41% officers). <sup>1167</sup>		

 <sup>&</sup>lt;sup>124</sup> Department of Defense. (2018). *Defense organizational climate survey*. https://www.deocs.net/public/index.cfm.
 <sup>125</sup> Note that the Active Component and Reserve Component metrics for unit morale are not comparable as different scales were used to assess unit morale across the Status of forces survey of reserve component members and Status of forces survey of active duty members.
 <sup>126</sup> Note: The Status of forces survey for active duty members does not define counselor, and may include military and civilian, medical or non-medical, providers.

	Connecting Seven Evidence-Informed Strategies to Proximal Outcomes and Baseline Metrics			
7 Evidence- Informed Strategies	Examples DoD Initiatives	Proximal Outcomes	Example Baseline Metrics	
	(REPS) Training Pilot	<ul> <li>Decreased Undesirable Coping Strategies</li> <li>Decreased Feelings of Hopelessness</li> </ul>	<ul> <li>Some Active Component Service members reported undesirable coping strategies when asked how they <i>would respond if</i> they felt trapped or stuck in a stressful situation, including: dealing with the situation on their own (77% overall, 75% enlisted, 84% officers), which may include isolating or other negative coping skills; ignoring or avoiding the situation (25% overall, 27% enlisted, 20% officers); and/or using alcohol or drugs to cope (13% overall, 14% enlisted, 9% officers). <sup>116</sup></li> <li>9% of Service members overall (10% of Active Component and 7% of Reserve Component Service members) reported feelings of hopelessness (i.e., that their future seemed dark; with 11% of junior enlisted and 5% of senior officers).<sup>117</sup> Increased positive coping strategies can help reduce hopelessness.</li> </ul>	
Identify and Support People at Risk	<ul> <li>Service Member Gatekeeper and Leadership Interventions</li> <li>Social Media Training Pilot</li> <li>Cognitive Behavior Strategies for the Prevention of Suicide Training Pilot</li> <li>National Guard Bureau Suicide Prevention and Readiness Initiative for the</li> </ul>	<ul> <li>Increased Knowledge to Identify and Respond to At-Risk Individuals</li> <li>Improved Access to Resources and Care</li> </ul>	<ul> <li>78% of Active Component Service members indicated suicide prevention training was at least somewhat helpful (of which, 48% reported it being very helpful to extremely helpful) in helping them identify and respond to suicidal behavior in others. 81% of enlisted Service members indicated suicide prevention training was at least somewhat helpful (of which, 51% reported it being very helpful to extremely helpful), and 68% of officers indicated suicide prevention training was at least somewhat helpful (of which, 36% reported it being very helpful to extremely helpful). <sup>116</sup></li> </ul>	

	Connecting Seven Evidence-Informed Strategies to Proximal Outcomes and Baseline Metrics					
7 Evidence- Informed Strategies	Examples DoD InitiativesProximal OutcomesExample Baseline Metrics					
	National Guard (SPRING)					
Lessen Harms and Prevent Future Risk	<ul> <li>Safe Messaging and Reporting on Military Suicide</li> <li>Postvention Toolkit</li> </ul>	<ul> <li>Improved Responsible Reporting of DoD Suicide</li> <li>Increased Access to Postvention Care</li> </ul>	<ul> <li>Military suicide news articles from fourth quarter of 2018 were rated based on how compliant they were with the safe reporting guidelines. On average, articles reporting on military suicide were 74% compliant with safe reporting guidelines.<sup>127</sup> Most of the news articles violated about five out of 18 guidelines. Guidelines such as <i>providing help or prevention resources</i> and <i>educating the public about suicide</i> were most likely to be violated.</li> <li>Media coverage of suicide can negatively impact behavior by contributing to contagion or can positively encourage help-seeking.<sup>128</sup></li> </ul>			

 <sup>&</sup>lt;sup>127</sup> World Health Organization. (2017). Preventing suicide: A resource guide for media professionals. http://apps.who.int/iris/bitstream/10665/258814/1/WHO-MSD-MER-17.5-eng.pdf?ua=1.
 <sup>128</sup> Bohanna, I., & Wang, X. (2012). Media guidelines for the responsible reporting of suicide: A review of effectiveness. *Crisis*, *33*(4),190-198.

# **Appendix F: Research Collaborations & Data Sharing**

The Department collaborates regularly on efforts, both internally and externally, with other organizations in order to continually advance our understanding of suicide and our evidence-base of effective suicide prevention policies and programs. The following pages are examples of research collaborations and data sharing that occurred in CY 2019 across the Department and beyond. Although it is beyond the scope of this report to provide an exhaustive list of collaborations, we have highlighted in the following table a few examples.

Project Description	<b>Example</b> <b>Collaborators</b> (not exhaustive)	Across DoD	VA	Other Federal Agencies	Academia	NGOs
Executive Order 13861 – President's Roadmap to Empower Veterans and End a National Tragedy of Suicide: Interagency effort, along with state, local, and private sector organizations, to develop and implement a national, comprehensive roadmap to prevent suicide among our Veterans and all Americans, including our military community.	<ul> <li>Department of Defense (DoD)<sup>129</sup></li> <li>Military Services<sup>130</sup></li> <li>Department of Veterans Affairs (VA)</li> <li>Department of Health and Human Services (HHS)<sup>131</sup></li> <li>Department of Labor (DOL)</li> <li>Department of Education (DOE)</li> <li>Department of Homeland Security (DHS)</li> <li>Harvard University</li> <li>University of Oxford</li> <li>American Foundation for Suicide Prevention (AFSP)</li> </ul>	✓	~	~	✓	×
<b>Executive Order 13822 – Supporting Our Veterans During Their</b> <b>Transition From Uniformed Service to Civilian Life</b> : Interagency effort to develop and implement a Joint Action Plan to ensure seamless access to mental health care and suicide prevention resources for transitioning Service members and Veterans during their first year after retirement or separation from the military.	<ul> <li>DoD</li> <li>Military Services</li> <li>VA</li> <li>HHS</li> <li>University of Washington</li> </ul>	✓	~	*	✓	

<sup>&</sup>lt;sup>129</sup> DoD could include the Defense Suicide Prevention Office (DSPO), Defense Health Agency (DHA), Office of Force Resiliency (OFR), Defense Human Resources Activity (DHRA), Uniformed Services University of Health Sciences (USUHS), Psychological Heath Center of Excellence (PHCoE), Military Community and Family Policy (MCFP), Office of People Analytics (OPA), Defense Equal Opportunity Management Institute (DEOMI), and Military Operational Medicine Research Program (MOMRP), among others. <sup>130</sup> The Military Services may include Army, Navy, Marine Corps, Air Force, National Guard, and Reserve components. <sup>131</sup> Note: Centers for Disease Control (CDC) and National Institutes of Health (NIH) fall under HHS.

Project Description	Example Collaborators (not exhaustive)	Across DoD	VA	Other Federal Agencies	Academia	NGOs
<b>Executive Order 13625 – Improving Access to Mental Health</b> <b>Services for Veterans, Service Members, and Military Families</b> : Interagency effort to ensure that Veterans, Service members, and their families have access to needed mental health services and support; included the development of the National Research Action Plan.	<ul> <li>DoD</li> <li>VA</li> <li>HHS</li> <li>Catholic University</li> </ul>	✓	~	✓	✓	
Suicide Prevention Research Impact Network (SPRINT): Collaborative network of VA and non-VA researchers dedicated to conducting high-quality, high-priority, and high-impact suicide prevention services research.	<ul> <li>DoD</li> <li>VA</li> <li>HHS</li> <li>University of Michigan</li> </ul>	~	~	✓	✓	
The National Action Alliance for Suicide Prevention: Brings together more than 250 national partners from public and private sectors to advance the National Strategy for Suicide Prevention, including sharing of the latest research findings and potential research opportunities.	<ul> <li>DoD</li> <li>VA</li> <li>HHS</li> <li>University of Rochester</li> <li>Northwestern University</li> <li>Tragedy Assistance Program for Survivors (TAPS)</li> <li>Kaiser Permanente</li> <li>National Shooting Sports Foundation</li> <li>RAND Corporation</li> </ul>	V	~	✓	✓	✓

Project Description	<b>Example</b> <b>Collaborators</b> ( <i>not</i> <i>exhaustive</i> )	Across DoD	VΑ	Other Federal Agencies	Academia	NGOs
<b>DoD/VA Suicide Prevention Conference:</b> DoD and VA host a biennial suicide prevention conference, representing the only national conference that specifically addresses suicide in the military and Veteran populations. The conference provides an opportunity for the public and private sectors to share their expertise and learn about the latest research and promising practices for preventing suicide among our military and Veteran communities.	<ul> <li>DoD</li> <li>Military Services</li> <li>VA</li> <li>HHS</li> <li>AFSP</li> <li>SAMHSA</li> <li>Multiple Universities</li> <li>TAPS</li> <li>Psych Armor</li> <li>Give an Hour</li> </ul>	V	¥	✓	✓	✓
Assessing Social and Community Environments with National Data (ASCEND): ASCEND is a new 2019 Veteran suicide prevention project supported by a Federal partner engagement team (National Institute of Mental Health, CDC, Substance Abuse and Mental Health Services Administration, DSPO, VA and DoD Study to Assess Risk and Resilience in Service Members (STARRS)). Goals include establishing a nationally representative survey of Veterans (not just those enrolled with VA), using community-based participatory methods to engage Veterans, leveraging the surveys as a national surveillance system, and estimating the impact of social and community risk and protective factors on Veteran suicidal thoughts and behaviors.	<ul> <li>DoD</li> <li>VA</li> <li>HHS</li> <li>Military Services</li> <li>University of Michigan</li> <li>Harvard University</li> </ul>	✓	V	✓	✓	
<b>DoD and VA Military Mortality Database:</b> This database is the only existing mortality database that includes all causes of death for individuals with a history of military service, merging existing data from DoD and VA with death records acquired by CDC. DoD and VA jointly manage access to this database for DoD and VA researchers.	<ul> <li>DoD</li> <li>VA</li> <li>HHS</li> <li>Multiple Universities</li> </ul>	✓	✓	✓	✓	

Project Description	<b>Example</b> <b>Collaborators</b> ( <i>not</i> <i>exhaustive</i> )	Across DoD	VΑ	Other Federal Agencies	Academia	NGOs
<b>Military Suicide Research Gaps Analysis CY 2019–2020</b> : A large- scale analytic project to identify and prioritize gaps in military suicide research.	<ul><li> DoD</li><li> VA</li><li> Multiple Universities</li></ul>	~	✓		~	
National Institute of Mental Health (NIMH) Suicide Prevention Database: National Action Alliance for Suicide Prevention Research Prioritization Task Force – led by NIMH – developed a prioritized research agenda that aimed to determine how recently funded U.S. studies (both federally and non-federally funded) could be leveraged. The Research Prioritization Task Force collected information from Federal (including DoD, VA, National Institute of Health, CDC, and others) and non-Federal funders to categorize and characterize suicide prevention research studies and conduct a portfolio and gap analysis. The Research Prioritization Task Force released a report in 2015 summarizing the U.S. national suicide prevention research efforts from 2008 to 2013, with an updated analysis underway.	<ul> <li>DoD</li> <li>HHS</li> <li>VA</li> <li>AFSP</li> </ul>	~	¥	✓		✓
Study to Assess Risk and Resilience in Service Members– Longitudinal Study (STARRS-LS): This DoD-funded longitudinal research study is focused on creating practical, actionable information on risk reduction and resilience-building for suicide, suicide-related behavior, and other mental and behavioral health issues in the military. The study is led by the Uniformed Services University of the Health Sciences and University of California-San Diego. A Federal Government steering committee, made up of DoD, VA, NIMH, and military Service members, oversees the project goals and objectives.	<ul> <li>DoD</li> <li>Military Services</li> <li>HHS</li> <li>University of California- San Diego</li> <li>University of Michigan</li> <li>Harvard University</li> </ul>	~		~	✓	

Project Description	Example Collaborators (not exhaustive)	Across DoD	VA	Other Federal Agencies	Academia	NGOs
<b>Military Suicide Research Consortium (MSRC)</b> : This consortium integrates and synchronizes DoD and civilian research efforts to implement a multidisciplinary research approach to suicide prevention. The consortium is funded by the Defense Health Program, managed by the Military Operational Medicine Research Program, and operated by Florida State University and the Denver Veterans Affairs Medical Center.	<ul> <li>DoD</li> <li>Military Services</li> <li>HHS</li> <li>Florida State University</li> <li>University of Denver</li> </ul>	~	~	~	*	
Military Operational Medicine Research Program Review Panel: Oversees and makes recommendations on planning, programming, and execution of psychological health research studies, to include suicide, family, resilience, and violence prevention.	<ul><li>DoD</li><li>Military Services</li><li>HHS</li></ul>	~		~		
National Guard Bureau (NGB) and VA Readjustment Counseling Service (RCS) Vet Center Initiative: Provides greater access to behavioral health and support services for National Guard members and their families via VA Mobile Vet Centers during drill periods. Numerous Army National Guard state-level programs also share data with VA as part of either their Suicide Prevention Task Force, Mayors' Challenge, Governors' Challenge, or suicide prevention efforts as a whole.	<ul> <li>NGB</li> <li>VA</li> <li>Columbia University</li> </ul>		~		✓	
<b>DoD Suicide Event Report (DoDSER)–National Violent Death</b> <b>Reporting System (NVDRS) Database Linkage</b> : DoD is partnering with CDC to link NVDRS data on suicide deaths with DoDSER data, with a key outcome being detailed mapping of suicide deaths by U.S. county (and the characteristics of decedents in these concentrated areas). Identifying areas and localized populations with high suicide rates will help enable the allocation of suicide prevention resources where and to whom they are most needed.	<ul> <li>DoD</li> <li>HHS</li> <li>University of Washington</li> </ul>	~		✓	~	

Project Description	<b>Example</b> <b>Collaborators</b> ( <i>not</i> <i>exhaustive</i> )	Across DoD	VA	Other Federal Agencies	Academia	NGOs
<b>Use of Advana</b> : Leverage technology platform that houses a collection of DoD enterprise data to develop SPRINGboard, which is a data-driven tool to help National Guard leaders make more informed decisions about the health and well-being of Service members. Advana is in use by other DoD agencies.	<ul><li>DoD</li><li>NGB</li></ul>	V				
<b>Army National Guard (ARNG) Resilience Program</b> : Collaboration between ARNG and Defense Health Agency (DHA) Army Satellite to examine the effectiveness of the ARNG Resilience Program and its impact on Soldier resilience.	<ul> <li>Army National Guard (ARNG)</li> <li>DHA Army Satellite</li> <li>SAMHSA</li> <li>University of Pennsylvania</li> </ul>	~		~	~	
Rational Thinking – Emotional Regulation – Problem-Solving (REPS) Training Pilot: Piloting an interactive educational program designed to teach foundational skills to deal with life stressors early in one's military career.	<ul><li>DoD</li><li>Military Services</li></ul>	✓				
<b>Transition Support</b> : Outreach to Service members transitioning to civilian life to promote access to care (e.g., mental health, financial) and encourage help-seeking among Service members and Veterans. Examples are inTransition and Solid Start programs.	<ul> <li>DoD</li> <li>Military Services</li> <li>VA</li> </ul>	✓	~			
<b>Counseling on Access to Lethal Means (CALM) Training Pilot</b> : Piloting CALM training for non-medical military providers, such as Military and Family Life Counselors and Military OneSource counselors. In Phase 2 of the pilot, training will be extended to other individuals in the military community, such as chaplains, spouses, and community counselors.	<ul> <li>DoD</li> <li>Military Services</li> <li>SAMHSA</li> </ul>	✓		*		

Project Description	<b>Example</b> <b>Collaborators</b> (not exhaustive)	Across DoD	VA	Other Federal Agencies	Academia	NGOs
<b>Resources Exist, Asking Can Help (REACH) Training Pilot</b> : A pilot barrier reduction training designed to address the most prevalent help-seeking concerns and perceived barriers 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 help early on.	<ul> <li>DoD</li> <li>Military Services</li> <li>University of Michigan</li> </ul>	~			√	
<b>Recognizing the Signs of Intent to Die by Suicide on Social Media</b> <b>Training Pilot</b> : Training video that educates Service members on the 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.	<ul> <li>DoD</li> <li>Military Services</li> <li>University of Utah</li> </ul>	~			✓	
<b>Postvention Toolkit:</b> Comprehensive, evidence-informed guide to providing postvention services and bereavement support to unit members and next-of-kin who survive military suicide loss.	<ul> <li>DoD</li> <li>Military Services</li> <li>VA</li> <li>Tragedy Assistance Program for Survivors (TAPS)</li> </ul>	~	~			*
<b>Social Norms for Safe Firearm Storage:</b> Effort to develop and pilot firearm safe storage messaging that encourage adoption of firearm safety practices among Service members.	<ul> <li>DoD</li> <li>Military Services</li> <li>University of Colorado</li> <li>Rutgers University</li> </ul>	~			✓	
<b>Status of Forces Survey-Active Duty (SOFS-A)</b> : Quantitative research effort focusing on quality-of-life factors, such as overall satisfaction, retention intention, stress, deployments, financial readiness, and suicide prevention of Active Component Service members.	<ul><li>DoD</li><li>Military Services</li></ul>	~				

Project Description	Example Collaborators (not exhaustive)	Across DoD	VA	Other Federal Agencies	Academia	NGOs
<b>Status of Forces Survey-Reserve (SOFS-R)</b> : Quantitative research effort focusing on quality-of-life factors such as overall satisfaction, retention intention, stress, deployments, financial readiness, and suicide prevention of Reserve Component Service members.	<ul><li>DoD</li><li>Military Services</li></ul>	~				
<b>Defense Equal Opportunity Climate Survey (DEOCS)</b> : Quantitative data that assess the level of connectedness (a known factor in suicide) within a military unit to inform strategies for military leaders to increase connectedness and unit cohesion.	<ul><li>DoD</li><li>Military Services</li></ul>	~				
Survey of Personal Firearms Attitudes and Practices: Survey to understand beliefs about safe storage practices and attitudes about firearm ownership among Service members.	<ul><li>DoD</li><li>Military Services</li><li>Rutgers University</li></ul>	~			~	
<b>Lethal Means Safety Video</b> : Develop educational video that educates Service members and families on the importance of lethal means safety – storing firearms and medications safely.	<ul><li>DoD</li><li>Military Services</li></ul>	~				
<b>Longitudinal Study of Suicide Ideation</b> : Longitudinal study to assess changes in suicidal ideation, resources used, and the effectiveness of those resources in reducing ideation. This is a planned, five-year study with funding through Year 2.	<ul><li>DoD</li><li>Military Services</li></ul>	~				
<b>Suicide Ideation and Career Outcomes Study</b> : Longitudinal analysis of existing survey and administrative data to understand if suicide ideation and seeking help have an effect on career outcomes of Active Component Service members. This is a planned, five-year study with funding through Year 1.	<ul><li>DoD</li><li>Military Services</li></ul>	~				

Project Description	<b>Example</b> <b>Collaborators</b> ( <i>not</i> <i>exhaustive</i> )	Across DoD	VA	Other Federal Agencies	Academia	NGOs
<b>Star Behavioral Health Providers Program</b> : Trains community-based behavioral health providers in military culture. This 2019 collaboration includes 12 states.	<ul><li> DoD</li><li> NGB</li><li> Purdue University</li></ul>	~			✓	
<b>Sample National Guard State-Level Initiatives:</b> Multiple state-level initiatives are underway. For example, Warrior Resilience and Fitness – Innovation and Outreach Branch Pilot Programs. NGB's Warrior Resilience and Fitness Innovation Incubator (WRFII) aims to identify, select, evaluate, and disseminate evidence-based practices across the National Guard to promote resiliency and prevent harmful behaviors including suicide. Selected pilots receive funding and technical assistance to implement their programs and evaluate effectiveness. As of FY 2019, WRFII is working with 11 pilots across 24 states and territories. Examples of pilot initiatives include Supportive Services Council, Embedded Clinicians, Behavioral Health Primary Prevention, and Retention.	<ul> <li>ARNG</li> <li>Multiple States</li> <li>University of Washington</li> <li>University of Denver</li> <li>Jason Foundation</li> <li>Nine Line</li> </ul>	~			✓	✓
<b>Zero Suicide Initiative:</b> Air Force is collaborating with Pennsylvania State University on the implementation and program evaluation of the Zero Suicide Initiative effort to train medical personnel on suicide risk assessment, safety planning in Air Force hospitals and clinics.	<ul> <li>DoD</li> <li>Air Force</li> <li>Pennsylvania State University</li> </ul>	~			~	
<b>Wingman Connect:</b> Air Force collaborated on research examining risk and protective factors among Airmen, as well as effectiveness of the Suicide Prevention Program with the University of Rochester.	<ul><li>Air Force</li><li>University of Rochester</li></ul>	~			✓	
<b>PsychArmor:</b> Collaboration with PsychArmor, which provides resources to Americans so they can effectively engage with and support military Service members, Veterans, and their families.	<ul> <li>DoD</li> <li>NGB</li> <li>PsychArmor</li> <li>Columbia University</li> </ul>	~			~	~
<b>Tragedy Assistance Program for Survivors (TAPS):</b> Partnership with TAPS to provide bereavement counseling, case management, and support to family members of Service members who have died.	<ul><li>DoD</li><li>Military Services</li><li>TAPS</li></ul>	~				~

Project Description	Example Collaborators (not exhaustive)	Across DoD	VA	Other Federal Agencies	Academia	NGOs
<b>Give an Hour:</b> National Guard Warrior Resilience and Fitness is partnering with Give an Hour on the "Change Direction: A Global Conversation on Mental Health Culture Change" campaign. This collaboration began in CY 2019 and helped 69,585 National Guard and Reserve members and their loved ones learn about the Healthy Habits, Five Signs, and how to access Give an Hour resources. Give an Hour has memoranda of understanding with multiple DoD agencies.	<ul><li>DoD</li><li>Military Services</li><li>Give an Hour</li></ul>	✓				~
<b>Military OneSource Evaluation:</b> Office of Military Community and Family Policy (MC&FP) collaboration with the RAND Corporation to evaluate Military OneSource's effectiveness in referring Service members and family members to resources, ensuring they gain access to those resources, and the resources are appropriate in helping them cope with their problems.	<ul><li>DoD</li><li>RAND Corporation</li></ul>	~				~
<b>RAND Systematic Review of Military Suicide Aftercare FY 2018–2020:</b> Synthesis of the existing evidence on interventions for people who have attempted suicide and their family members after attempted suicide.	<ul><li>DoD</li><li>RAND Corporation</li></ul>	~				~

### **Appendix G: Acronyms and Abbreviations**

- AFMES Armed Forces Medical Examiner System
- ARNG Army National Guard
- ASR Annual Suicide Report
- CALM Counseling on Access to Lethal Means
- CDC Centers for Disease Control and Prevention
- CY Calendar Year
- DEERS Defense Enrollment Eligibility Reporting System
- DEOCS Defense Organizational Climate Survey
- DEOMI Defense Equal Opportunity Management Institute
- DHA Defense Health Agency
- DHS Department of Homeland Security
- DMDC Defense Manpower Data Center
- DoD Department of Defense
- DoDI Department of Defense Instruction
- DoDSER Department of Defense Suicide Event Report
- DOE Department of Education
- DOL Department of Labor
- DSPO Defense Suicide Prevention Office
- FY Fiscal Year
- HHS Department of Health and Human Services
- MC&FP Office of Military Community and Family Policy
- MFLC Military and Family Life Counselors
- MMDB Military Mortality Database
- NDAA National Defense Authorization Act

- NDI National Death Index
- NGB National Guard Bureau
- NIH National Institutes of Health
- NIMH National Institute of Mental Health
- NVDRS National Violent Death Reporting System
- **OPA** Office of People Analytics
- OSD Office of the Secretary of Defense
- PHCoE Psychological Health Center of Excellence
- $QPR-Question\mbox{-}Persuade\mbox{-}Refer$
- RCS Readjustment Counseling Service
- REACH Resources Exist, Asking Can Help
- REPS Rational Thinking Emotional Regulation Problem-Solving
- SELRES Selected Reserve
- SOFS-A Status of Forces Survey of Active Duty Members
- SOFS-R Status of Forces Survey of Reserve Component Members
- SOS Signs of Suicide
- SPRING Suicide Prevention and Readiness Initiative for the National Guard
- STARRS-LS Study to Assess Risk and Resilience in Service Members-Longitudinal Study
- TAP Transition Assistance Program
- TAPS Tragedy Assistance Program for Survivors
- USARMDC U.S. Army Medical Research and Development Command
- VA Department of Veterans Affairs
- WISQARS Web-Based Injury Statistics Query and Reporting System

# **Appendix H: 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 U.S. Code as those active duty personnel paid from funds appropriated for active duty personnel."

Active Duty: 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 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.

**Data Sharing:** The exchange of data or results of research between agencies, consistent with Federal laws.

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).

**Public Health Approach:** A prevention approach that impacts groups or populations of people versus treatment of individuals. Public health focuses on preventing suicidal behavior before it ever occurs (primary prevention), and addresses a broad range of risk and protective factors. The public health approach values multi-disciplinary collaboration, which brings together many different perspectives and experience to enrich and strengthen the solutions for the many diverse communities.

**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 Reserve, 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.

**Statistically Significant:** A comparison is considered statistically significant if the probability of observing that difference, or a more extreme difference, is less than 5%.

**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 AFMES 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 AFMES 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).

## References

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), 1023-1030.

Anestis, M., & Houtsma, C. (2017). The association between gun ownership and statewide overall suicide rates. *Suicide and Life-Threatening Behavior*, 48(2), 204-217.

Anestis, M. D., Soberay, K. A., Gutierrez, P. M., Hernández, T. D, & Joiner, T. E. (2014). Reconsidering the link between impulsivity and suicidal behavior. *Personality and Social Psychology Review*, *18*(4), 366-386.

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.

Bohanna, I., & Wang, X. (2012). Media guidelines for the responsible reporting of suicide: A review of effectiveness. *Crisis*, *33*(4), 190-198.

Brent, D. A., & Mann, J. J. (2006). Familial pathways to suicidal behavior understanding and preventing suicide among adolescents. *New England Journal of Medicine*, *355*(26), 2719-2721.

Bryan, C. J., Bryan, A. O., Anestis, M. D., Khazem, L. R., Harris, J. A., May, A. M., & Thomsen, C. (2019). Firearm availability and storage practices among military personnel who have thought about suicide. *Journal of the American Medical Association Network Open*, *2*(8), e199160-e199160.

Bryan, C. J., Griffith, J. E., Pace, B. T., Hinkson, K., Bryan, A. O., Clemans, T. A., & 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 and Life Threatening Behavior*, *45*(5), 633-649.

Census Bureau. (n.d.). *Quick facts: United States*. Retrieved July 17, 2020 from <u>https://www.census.gov/quickfacts/fact/table/US/PST045219</u>.

Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. (2011). *Self-directed violence surveillance: Uniform definitions and recommended data elements, Version 1.0.* https://www.cdc.gov/violenceprevention/pdf/self-directed-violence-a.pdf

Centers for Disease Control and Prevention. (n.d.). *Suicide rising across the US: More than a mental health concern*. Retrieved July 17, 2020 from https://www.cdc.gov/vitalsigns/suicide/index.html.

Centers for Disease Control and Prevention (n.d.). *Web-based Injury Statistics Query and Reporting System (WISQARS)*. Retrieved July 17, 2020 from <a href="http://www.cdc.gov/injury/wisqars/index.html">http://www.cdc.gov/injury/wisqars/index.html</a>.

Cheung, S., Woo, J., Maes, M. S., & Zai, C. C. (2020). Suicide epigenetics, a review of recent progress. *Journal of Affective Disorders*, 265, 423-438.

Conner, A., Azrael, D., & Miller, M. (2019). Suicide case-fatality rates in the United States, 2007 to 2014: A nationwide population-based study. *Annals of Internal Medicine*, *171*(2), 885-895.

Coon, H., Darlington, T., Pimentel, R., Smith, K. R., Huff, C. D., Hu, H., & Byrd, J. (2013). Genetic risk factors in two Utah pedigrees at high risk for suicide. *Translational Psychiatry*, *3*(11), e325-e325.

Cottrell, B. (2019). *Suicide throughout military personnel and veterans: A literature review*. (Graduate thesis). Augsburg University.

Crifasi, C. K., Doucette, M. L., McGinty, E. E., Webster, D. W., & Barry, C. L. (2018). Storage practices of US gun owners in 2016. *American Journal of Public Health*, *108*(4), 532-537.

Crowell-Williamson, G. A., Fruhbauerova, M., DeCou, C. R., & Comtois, K. A. (2019). Perceived burdensomeness, bullying, and suicidal ideation in suicidal military personnel. *Journal of Clinical Psychology*, 75(12), 2147-2159.

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.

Dempsey, C. L., Benedek, D. M., Zuromski, K. L., Riggs-Donovan, C., Ng, T. H. H., Nock, M. K., & Ursano, R. J. (2019). Association of firearm ownership, use, accessibility, and storage practices with suicide risk among US Army soldiers. *Journal of the American Medical Association Network Open*, *2*(6), e195383-e195383.

Department of Defense. (2018). *Defense organizational climate survey*. <u>https://www.deocs.net/public/index.cfm</u>.

Department of Defense, Office of People Analytics. (2018a). 2018 Status of forces survey of active duty members, tabulation of responses. <u>https://dhra.deps.mil/sites/OPA/opa-survey/SitePages/Home.aspx</u>.

Department of Defense, Office of People Analytics. (2018b). 2018 Status of forces survey of reserve component members, tabulation of responses. <u>https://dhra.deps.mil/sites/OPA/opa-survey/SitePages/Home.aspx</u>.

Department of Defense, Under Secretary of Defense for Personnel and Readiness (2019). *Annual suicide report for calendar year 2018*. <u>https://www.dspo.mil/Portals/113/2018%20DoD%20Annual%20Suicide%20Report\_FINAL\_25%</u>20SEP%2019\_508c.pdf.

Department of Defense, Under Secretary of Defense for Personnel and Readiness. (2020, June 15). *Defense suicide prevention policy* (DoD Instruction 6490.16). https://www.dopo.mil/Portals/113/Documents/DoDI% 206400\_16% 20Defense% 20Suicide% 20Prov.

https://www.dspo.mil/Portals/113/Documents/DoDI%206490.16%20Defense%20Suicide%20Prevention%20Program\_15June2020%20.pdf?ver=2020-07-06-101216-977.

Department of Defense, Department of Veterans Affairs, Department of Health and Human Services, & Department of Education. (2013). *National research action plan: Responding to the executive order "Improving access to mental health services for veterans, service members, and military families.*"

https://obamawhitehouse.archives.gov/sites/default/files/uploads/nrap\_for\_eo\_on\_mental\_health\_a ugust\_2013.pdf.

Department of Health & Human Services. (2012). *National strategy for suicide prevention: goals and objectives for action: A report of the U.S. surgeon general and of the national action alliance for suicide prevention*. <u>https://www.ncbi.nlm.nih.gov/books/NBK109917/</u>.</u>

Department of Veterans Affairs, Mental Health and Chaplaincy. (n.d.). *Mental health integration for chaplain services*.

https://www.mirecc.va.gov/mentalhealthandchaplaincy/docs/MHICSBrochure2018to19.pdf.

Department of Veterans Affairs & Department of Defense. (2019). VA/DoD clinical practice guideline for assessment and management of patients at risk for suicide. https://www.healthquality.va.gov/guidelines/MH/srb/VADoDSuicideRiskFullCPGFinal508821201 9.pdf.

Edwards, A. C., Ohlsson, H., Mościcki, E. K., Sundquist, J., Sundquist, K., & Kendler, K. S. (2019). Geographic proximity is associated with transmission of suicidal behaviour among siblings. *Acta Psychiatrica Scandinavica*, *140*(1), 30-38.

Edwards-Stewart, A., Kinn, J. T., June, J. D., & Fullerton, N. R. (2011). Military and civilian media coverage of suicide. *Archives of Suicide Research*, *15*(4), 304-312.

Goodin, C. A., Prendergast, D. M., Pruitt, L. D., Smolenski, D. J., Wilson, N. Y., Skopp, N., & Hoyt, T. (2019). Financial hardship and risk of suicide among US Army personnel. *Psychological Services*, *16*(2), 286-292.

Harvard T. H. Chan School of Public Health. (n.d.). *Means matter website*. Retrieved July 17, 2020 from <u>http://www.hsph.harvard.edu/means-matter</u>.

Henn, M., Barber, C., & Hemenway, D. (2019). Involving firearm stakeholders in communitybased suicide prevention efforts. *Current Epidemiology Reports*, 6(2), 231-237.

Hoge, C. W. (2019). Suicide reduction and research efforts in service members and veterans— Sobering realities. *Journal of the American Medical Association Psychiatry*, 76(5), 464-466.

Klonsky, E., & May, A. (2010). Rethinking impulsivity in suicide. *Suicide and Life-Threatening Behavior*, 40(6), 612–619.

Knox, K. L., & Bossarte, R. M. (2012). Suicide prevention for veterans and active duty personnel. *American Journal of Public Health, 102*(1 Suppl), S8–S9.

Kopacz, M. S., Nieuwsma, J. A., Jackson, G. L., Rhodes, J. E., Cantrell, W. C., Bates, M. J., & Meador, K. G. (2016). Chaplains' engagement with suicidality among their service users: Findings

from the VA/DoD integrated mental health strategy. *Suicide and Life Threatening Behavior*, 46(2), 206-212.

LeardMann, C. A., Powell, T. M., Smith, T. C., Bell, M. R., Smith, B., Boyko, E. J., Hooper, T. I., Gackstetter, G. D., Ghamsary, M., & Hoge, C. W. (2013). Risk factors associated with suicide in current and former US military personnel. *Journal of the American Medical Association*, *310*(5), 496-506.

National Defense Authorization Act for Fiscal Year 2013, Public Law. 112-239, 126 Stat 1632. (2013). <u>https://www.govinfo.gov/link/plaw/112/public/239</u>.

National Defense Authorization Act for Fiscal Year 2015, Public Law. 113-291, 128 Stat 3292. (2015). <u>https://www.govinfo.gov/content/pkg/PLAW-113publ291/html/PLAW-113publ291.htm</u>.

National Defense Authorization Act for Fiscal Year 2020, Public Law. 116-92. (2020). https://www.congress.gov/bill/116th-congress/senate-bill/1790.

National Institute of Mental Health (n.d.). *Suicide statistics*. Retrieved September 6, 2019 from <u>https://www.nimh.nih.gov/health/statistics/suicide.shtml</u>.

Office of the Deputy Assistant Secretary of Defense for Military Community and Family Policy. (2018). 2018 Demographics report, profile of the military community. https://download.militaryonesource.mil/12038/MOS/Reports/2018-demographics-report.pdf.

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.

Pruitt, L. D., Smolenski, D. J., Bush, N. E., Tucker, J., Issa, F., & Hoyt, T. V. (2019). Suicide in the military: Understanding rates and risk factors across the United States' Armed Forces. *Military Medicine*, *184*(1 Suppl), 432-437.

Pruitt, L. D., Smolenski, D. J., Tucker, J., Issa, F., Chodacki, J., McGraw, K., & Kennedy, C. H. (2019). *Department of Defense suicide event report: Calendar year 2017 annual report*. Psychological Health Center of Excellence. https://www.pdhealth.mil/sites/default/files/images/docs/TAB\_B\_DoDSER\_CY\_2017\_Annual\_Report\_508\_071619.pdf.

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.

Reporting on Suicide. (2015). *Best practices and recommendations for reporting on suicide*. <u>https://reportingonsuicide.org/wp-content/themes/ros2015/assets/images/Recommendations-eng.pdf</u>.

Simon, T. R., Swann, A. C., Powell, K. E., Potter, L. B., Kresnow, M. J., & O'Carroll, P. W. (2001). Characteristics of impulsive suicide attempts and attempters. *Suicide and Life-Threatening Behavior*, *32*(1 Suppl), 49-59.

Simonetti, J. A., Dorsey Holliman, B., Holiday, R., Brenner, L. A., & Monteith, L. L. (2020). Firearm-related experiences and perceptions among United States male veterans: A qualitative interview study. PLoS One, 15(3), e0230135.

Stone, D. M., Holland, K. M., Bartholow, B., Crosby, A. E., Davis, S., & Wilkins, N. (2017). Preventing suicide: A technical package of policies, programs, and practices. Centers for Disease Control and Prevention.

https://www.cdc.gov/violenceprevention/pdf/suicideTechnicalPackage.pdf.

Stone, D. M., Simon, T. R., Fowler, K. A., Kegler, S. R., Yuan, K., Holland, K. M., Ivey-Stephenson, A. Z., & Crosby, A. E. (2018). Vital signs: trends in state suicide rates—United States, 1999–2016 and circumstances contributing to suicide—27 states, 2015. Morbidity and Mortality Weekly Report, 67(22), 617-624.

Swann, A. C., Lijffijt, M., O'Brien, B., & Mathew, S. J. (2020). Impulsivity and suicidal behavior. Current Topics in Behavioral Neurosciences.

Tadros, G., & Jolley, D. (2001). The stigma of suicide. British Journal of Psychiatry, 179(2), 178-178.

Trail, T. E., Martin, L. T., Burgette, L. F., May, L. W., Mahmud, A., Nanda, N., & Chandra, A. (2017). An evaluation of US military non-medical counseling programs. RAND Health Quarterly, 8(2). https://www.rand.org/pubs/research\_reports/RR1861.html.

Tucker, J., Smolenski, D. J., & Kennedy, C. H. (2019). Department of defense suicide event report: Calendar year 2018 annual report. Psychological Health Center of Excellence. https://www.pdhealth.mil/sites/default/files/images/docs/TAB\_B\_2018\_DoDSER\_Annual\_Report -508%20final-9MAR2020.pdf.

Turunen, E. & Hiilamo, H. (2014). Health effects of indebtedness: A systematic review. BMC Public Health, 14, 489.

Ursano, R. J., Fullerton, C. S., & Dichtel, M. L. (2016). Financial stress and behavioral health in military servicemembers: Risk, resilience, mechanisms and targets for intervention stress, resilience, and well being. Center for the Study of Traumatic Stress, Uniformed Services University of the Health Sciences. https://apps.dtic.mil/sti/citations/AD1004960.

Ursano, R. J., Kessler, R. C., Stein, M. B., Naifeh, J. A., Aliaga, P. A., Fullerton, C. S., Wynn, G. H., Vegella, P. L., Ng, T. H., Zhang, B. G., Wryter, C. L., Sampson, N. A., Kao, T. C., Colpe, L. J., Schoenbaum, M., McCarroll, J. E., Cox, K. L., Heeringa, S. G., & Army STARRS Collaborators. (2016). Risk factors, methods, and timing of suicide attempts among US army soldiers. Journal of the American Medical Association Psychiatry, 73(7), 741-749.

Ursano, R. J., Kessler, R. C., Naifeh, J. A., Herberman Mash, H., Fullerton, C. S., Aliaga, P. A., Wynn, G. H., Ng, T., Dinh, H. M., Sampson, N. A., Kao, T. C., Bliese, P. D., & Stein, M. B. (2018). 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). Journal of the American Medical Association Psychiatry, 75(6), 596–604.

Under Secretary of Defense for Personnel and Readiness Memorandum, "Designation of the Defense Suicide Prevention Office as the Official Release Authority of Suicide Data for the Department of Defense," October 30, 2018.

VanderWeele, T. J. (2017). Religion and health: A synthesis. In M. J. Balboni & J. R. Peteet (Eds.), *Spirituality and religion within the culture of medicine: From evidence to practice* (pp. 357–401). Oxford University Press.

VanderWeele, T. J., Li, S., Tsai, A., & Kawachi, I. (2016). Association between religious service attendance and lower suicide rates among US women. *Journal of the American Medical Association Psychiatry*, 73(8), 845-51.

Whisman, M. A., Salinger, J. M., Labrecque, L. T., Gilmour, A. L., & Snyder, D. K. (2019). Couples in arms: Marital distress, psychopathology, and suicidal ideation in active-duty Army personnel. *Journal of Abnormal Psychology*, *129*(3), 248–255.

World Health Organization. (2017). Preventing suicide: A resource guide for media professionals. <u>http://apps.who.int/iris/bitstream/10665/258814/1/WHO-MSD-MER-17.5-eng.pdf?ua=1.</u>

Yip, P. S., Caine, E., Yousuf, S., Chang, S. S., Wu, K. C., & Chen, Y. Y. (2012). Means restriction for suicide prevention. *Lancet (London, England)*, *379*(9834), 2393-2399.