Ways Veterans Differ from the General Population



Overview

Veterans die by suicide at a higher rate than non-Veterans. In 2020, the age- and sexadjusted suicide rate among Veterans was 57.3% higher than the age- and sex-adjusted rate among non-Veteran U.S. adults. While the number and rate of suicide deaths increased among all Americans between 2001 and 2018, Veteran suicide deaths consistently outpace those of non-Veteran U.S. adults.1 Veteran suicide rates decreased from 2019 to 2020, with a 4.8% decrease in the age- and sexadjusted suicide rate for Veterans compared to a 3.6% decrease in U.S. non-Veterans; however, suicide rates among Veterans continue to exceed those of non-Veterans. From 2001 to 2020, the age- and sex-adjusted suicide rate peaked among Veterans and non-Veteran U.S. adults. Veterans also experience higher rates of suicidal ideation and suicide attempts compared to their civilian counterparts.² There are important differences between these populations that may help explain the disparate suicide rates.

Key Findings

Pre-Military Risk Factors

- Veterans report a higher rate of adverse childhood experiences (ACE) than people with no history of military service.³ Further, both men and women Veterans were more likely to report a larger number of ACEs than their civilian counterparts.³
- Childhood bullying and premilitary sexual trauma have been found to be risk factors for suicidal behavior among service members.^{4,5} A history of ACEs may be more predictive of suicidal ideation than other risk factors among Veterans, such as serving in a combat zone or experiencing a traumatic brain injury (TBI).⁶

Military Risk Factors

- While deployment to a war zone and combat exposure may not be risk factors for suicide death among Veterans or service members,^{7,8} combat exposure is associated with suicidal ideation among Veterans.⁹
- Moral injury, or exposure to specific combat-related experiences, such as participating in or witnessing violence or atrocities, is associated with suicidal behavior among Veterans and service members.^{8,10}
- Between 2000 and 2019, 413,858 service members were diagnosed with a mild, moderate, or severe TBI.¹¹ Veterans with a history of TBI are at higher risk for suicide than Veterans with no history of TBI.¹²
- Sexual harassment or sexual assault while in the military, also called military sexual trauma, was reported by 3.9% of men and 38.4% of women Veterans and service members.¹³ Military sexual trauma is a risk factor for suicide, even after accounting for co-occurring psychiatric conditions.¹³

Transition to Civilian Life

- Veteran men and women were found to be more likely to report suicidal ideation and attempt in adulthood when compared to their civilian counterparts.² The majority (57%) of first suicide attempts among Veterans occur following separation from service; 22% of Veterans reported a first attempt prior to enrolling in the military, and 21% reported a first attempt occurring during active service.¹⁴ While the risk for death by suicide can remain elevated for years following this transition, Veterans are most vulnerable during the first three months.^{15,16}
- One study found that, compared to recently separated service members with a bachelor's degree, those recently seperated service members with less education had a higher hazard of suicide.¹⁶ The authors suggest that these individuals may have experienced greater difficulty in securing post-military employment, which could heighten other psychosocial stressors experienced in the first year after separation, such as finances.¹⁶
- Veterans who were discharged from the military for disability, disqualification, or misconduct, as well as





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Veterans who completed fewer than four years of service prior to separation, are at greater risk for suicidal ideation and behavior than those who received a routine discharge.^{17,18} The elevated risk may be accounted for by recognized risk factors for suicide, such as substance use or mental health conditions, which may potentially trigger or be triggered by an administrative discharge.¹⁹

- Younger age at time of separation was associated with higher suicidal ideation trajectory.²⁰ One study found suicide hazard rate that were 4.5 times higher among Veterans that transitioned to civilian life at a younger age (aged 17–19).¹⁶
- Recently separated male Veterans were at increased risk for suicide mortality by firearm suicide compared with the general Veteran population after adjusting for age.²¹
- Many Veterans report worsening symptoms of posttraumatic stress disorder, outbursts of anger, substance misuse, and strained interpersonal relationships during their transition to civilian life.²²
- Health concerns is the most frequently reported factor affecting Veterans' readjustment; more than half of Veterans reported a chronic physical condition at both three and six months following separation, and a third of Veterans reported a chronic mental health condition.²³

Veteran Risk Factors

- Many Veterans live in rural areas. While 24.1% of the Veteran population lived in rural areas between 2011 and 2015, just 19.3% of the general population lived in rural areas.²⁴ The suicide rate among Veterans and non-Veterans is higher in rural areas than in urban areas.^{25,26,27} This disparity could be due to several factors including differences in the racial makeup of urban and rural Veteran populations.²⁷
- Veterans have higher rates of firearm ownership than the general population. While men Veterans were

- more likely than women Veterans to own a firearm, and both men and women Veterans were more likely to own a firearm compared with their counterparts in the general population.²⁸ In 2020, firearms accounted for 71.0% of all Veteran suicides, and 50.3% of all non-Veteran U.S. adult suicides.¹
- Household gun ownership has been associated with increased suicides.²⁹ The firearm suicide mortality is almost three times higher when a gun is kept loaded in the house and increases further if the loaded gun is left unlocked.²⁹
- Mental health conditions are prevalent among Veterans in VHA care. In 2020, 29.97% of Veterans who received care through VHA had a confirmed mental health diagnosis and an additional 37% had a possible mental illness recorded in their health records.³⁰ A diagnosis of any mental health condition has been associated with increased risk of subsequent suicide among patients who used VHA services.³¹
- Homelessness is independently associated with lifetime suicide attempts among both U.S Veterans and non-Veterans. However, compared to homeless non-Veterans, homeless Veterans are more likely to have attempted suicide.³²
- Justice involvement has significant negative impacts on men Veteran's PTSD symptoms, depressive symptoms, and suicidal ideation. Adjusted analyses revealed that both men and women Veterans with a history of justiceinvolvment were almost three times more likely to report a lifetime suicide attempt than Veterans with no history of justice involvement.³³
- According to a study using data from the 2010-2014 National Health Interview Survey (NHIS), the rate of severe pain was near 50% higher among Veterans than nonveterans.³⁴The prevalence of severe pain in the back, jaw, neck, and headache or migraine was significantly higher among Veterans than non-Veterans with the same pain.³⁴ Chronic pain may be a risk factor for suicidal ideation and behavior.^{35,36}

Ways You Can Help

- Inform Veterans of the multitude of mental health services available through the VA both in person and online. Find out more *here*.
- Inform Veterans that anyone can experience MST, and like other types of trauma, MST can negatively affect a person's
 mental and physical health. VA provides help with treatment and health care related to experiences of MST. Find out
 more here.
- Direct Veterans to the VA's Rocky Mountain Mental Illness Research, Education and Clinical Center (MIRECC) resources dedicated to lethal means safety and suicide prevention, including toolkits, pocket cards, videos, and more. Find out



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more here.

- Inform Veterans about the VA's Make the Connection to connect with the experiences of other Veterans—and ultimately
 to connect with information and resources to help them confront the challenges of transitioning from service, face health
 issues, or navigate the complexities of daily life as a civilian. Find out more here.
- Direct unemployed Veterans that the VA offers a multitude of career and employment resources to build Veteran's careers and find the opportunities that are right for them. Find out more *here*.

There is no single cause of suicide. It is often the result of a complex interaction of risk and protective factors at the individual, interpersonal, community, and societal levels. To prevent Veteran suicide, we must maximize protective factors and minimize risk factors at all of these levels.

References

- 1 Office of Mental Health and Suicide Prevention. (2022). National Veteran Suicide Prevention Annual Report. Washington, DC: U.S. Department of Veterans Affairs.
- 2 Hoffmire, C. A., Monteith, L. L., Forster, J. E., Bernhard, P. A., Blosnich, J. R., Vogt, D., Maguen, S., Smith, A. A., & Schneiderman, A. I. (2021). Gender differences in lifetime prevalence and onset timing of suicidal ideation and suicide attempt among post-9/11 Veterans and Nonveterans. *Medical Care*, 59, S84–S91.
- 3 Blosnich, J. R., Garfin, D. R., Maguen, S., Vogt, D., Dichter, M. E., Hoffmire, C. A., Bernhard, P. A., & Schneiderman, A. (2021). Differences in childhood adversity, suicidal ideation, and suicide attempt among veterans and nonveterans. *The American Psychologist*, 76(2), 284–299.
- 4 Bryan, C. J., Bryan, A. O., & Clemans, T. A. (2015a). The association of military and premilitary sexual trauma with risk for suicide ideation, plans, and attempts. Psychiatry Research, 227(2-3), 246–252.
- 5 Campbell-Sills, L., Kessler, R. C., Ursano, R. J., Rosellini, A. J., Affit, T. O., Colpe, L. J., Heeringa, S. G., Nock, M. K., Sampson, N. A., Sareen, J., Schoenbaum, M., Sun, X., Jain, S., Stein, M. B., & Army STARRS Collaborators (2017). Associations of childhood bullying victimization with lifetime suicidal behaviors among new U.S. Army soldiers. *Depression and Anxiety*, 34(8), 701–710.
- 6 Blosnich, J. R., & Bossarte, R. M. (2017). Premilitary Trauma as a correlate of suicidal ideation among Veterans. Psychiatric Services (Washington, D.C.), 68(8), 755.
- 7 Kang, H. K., Bullman, T. A., Smolenski, D. J., Skopp, N. A., Gahm, G. A., & Reger, M. A. (2015). Suicide risk among 1.3 million veterans who were on active duty during the Iraq and Afghanistan wars. *Annals of Epidemiology*, 25(2), 96–100.
- 8 LeardMann, C. A., Matsuno, R. K., Boyko, E. J., Powell, T. M., Reger, M. A., Hoge, C. W., & Millennium Cohort Study (2021). Association of combat experiences With suicide attempts among Active-Duty US Service members. *JAMA Network Open*, 4(2), e2036065.
- 9 Mitchell, M. M., Gallaway, M. S., Millikan, A. M., & Bell, M. (2012). Interaction of combat exposure and unit cohesion in predicting suicide-related ideation among post-deployment soldiers. Suicide & Life-Threatening Behavior, 42(5), 486–494.
- 10 Bryan, C. J., Griffith, J. E., Pace, B. T., Hinkson, K., Bryan, A. O., Clemans, T. A., & Imel, Z. E. (2015b). Combat exposure and risk for suicidal thoughts and behaviors among military personnel and Veterans: A systematic review and meta-analysis. Suicide & Life-Threatening Behavior, 45(5), 633–649.
- 11 Defense and Veterans Brain Injury Center. (2020). DoD Worldwide TBI Numbers. Washington, DC: U.S. Department of Defense.
- 12 Hostetter, T. A., Hoffmire, C. A., Forster, J. E., Adams, R. S., Stearns-Yoder, K. A., & Brenner, L. A. (2019). Suicide and traumatic brain injury among individuals seeking Veterans Health Administration services between fiscal years 2006 and 2015. The Journal of Head Trauma Rehabilitation, 34(5), E1–E9.
- 13 Wilson L. C. (2018). The prevalence of military sexual trauma: A meta-analysis. *Trauma, Violence & Abuse*, 19(5), 584–597.
- 14 Villatte, J. L., O'Connor, S. S., Leitner, R., Kerbrat, A. H., Johnson, L. L., & Gutierrez, P. M. (2015). Suicide attempt characteristics among Veterans and Active-Duty Service members receiving mental health services: A pooled data analysis. *Military Behavioral Health*, 3(4), 316–327.
- 15 Shen, Y. C., Cunha, J. M., & Williams, T. V. (2016). Time-varying associations of suicide with deployments, mental health conditions, and stressful life events among current and former US military personnel: A retrospective multivariate analysis. *The Lancet. Psychiatry*, 3(11), 1039–1048.
- 16 Ravindran, C., Morley, S. W., Stephens, B. M., Stanley, I. H., & Reger, M. A. (2020). Association of suicide risk with transition to civilian life among US Military Service members. *JAMA Network Open*, 3(9), e2016261.
- 17 Brignone, E., Fargo, J. D., Blais, R. K., Carter, M. E., Samore, M. H., & Gundlapalli, A. V. (2017). Non-routine discharge from military service: Mental illness, substance use disorders, and suicidality. *American Journal of Preventive Medicine*, 52(5), 557–565.
- 18 Reger, M. A., Smolenski, D. J., Skopp, N. A., Metzger-Abamukang, M. J., Kang, H. K., Bullman, T. A., Perdue,

- S., & Gahm, G. A. (2015). Risk of suicide among US Military Service members following operation enduring freedom or operation Iraqi Freedom Deployment and separation From the US Military. *JAMA Psychiatry*, 72(6), 561–569.
- 19 Hoffmire, C. A., Monteith, L. L., Holliday, R., Park, C. L., Brenner, L. A., & Hoff, R. A. (2019). Administrative military discharge and suicidal ideation among post-9/11 Veterans. *American Journal of Preventive Medicine*, 56(5), 727–735.
- 20 Hoffmire, C. A., Borowski, S., Griffin, B. J., Maguen, S., & Vogt, D. (2022). Trajectories of suicidal ideation following separation from military service: Overall trends and group differences. Suicide & Life-Threatening Behavior.
- 21 Stanley, I. H., Ravindran, C., Morley, S. W., Stephens, B. M., & Reger, M. A. (2022). Analysis of methods of suicide among US military Veterans recently separated from military service. *JAMA Network Open*, 5(5), e2210731
- 22 Derefinko, K. J., Hallsell, T. A., Isaacs, M. B., Colvin, L. W., Salgado Garcia, F. I., & Bursac, Z. (2019). Perceived needs of Veterans transitioning from the Military to civilian life. *The Journal of Behavioral Health Services & Research*. 46(3), 384–398.
- 23 Vogt, D. S., Tyrell, F. A., Bramande, E. A., Nillni, Y. I., Taverna, E. C., Finley, E. P., Perkins, D. F., & Copeland, L. A. (2020). U.S. Military Veterans' health and well-being in the first year after service. American Journal of Preventive Medicine, 58(3), 352–360.
- 24 U.S. Census Bureau. (2017). Veterans in rural America: 2011–2015. Washington, DC: U.S. Department of Commerce.
- 25 Ivey-Stephenson, A. Z., Crosby, A. E., Jack, S., Haileyesus, T., & Kresnow-Sedacca, M. J. (2017). Suicide trends among and within urbanization levels by sex, race/ethnicity, age group, and mechanism of death United States, 2001-2015. Morbidity and Mortality Weekly Report. Surveillance Summaries, 66(18), 1–16.
- 26 McCarthy, J. F., Blow, F. C., Ignacio, R. V., Ilgen, M. A., Austin, K. L., & Valenstein, M. (2012). Suicide among patients in the Veterans Affairs health system: Rural-urban differences in rates, risks, and methods. *American Journal of Public Health*, 102 Suppl 1(Suppl 1), S111–S117.
- 27 Shiner, B., Peltzman, T., Cornelius, S. L., Gui, J., Forehand, J., & Watts, B. V. (2021). Recent trends in the rural-urban suicide disparity among Veterans using VA health care. *Journal of Behavioral Medicine*, 44(4), 492–506. https://doi.or
- 28 Theis, J., Hoops, K., Booty, M., Nestadt, P., & Crifasi, C. (2021). Firearm suicide among Veterans of the U.S. Military: A systematic review. Military Medicine, 186(5-6), e525–e536.
- 29 Kposowa, A., Hamilton, D., & Wang, K. (2016). Impact of firearm availability and gun regulation on state suicide rates. Suicide & Life-Threatening Behavior, 46(6), 678–696.
- 30 Greenberg, G. and R. Hoff. 2021. FY 2020 mental health data sheet: National, VISN, and VAMC tables. West Haven, CT: U. S. Department of Veterans Affairs, Northeast Program Evaluation Center.
- 31 McCarthy, J. F., Bossarte, R. M., Katz, I. R., Thompson, C., Kemp, J., Hannemann, C. M., Nielson, C., & Schoenbaum, M. (2015). Predictive modeling and concentration of the risk of suicide: Implications for preventive interventions in the US Department of Veterans Affairs. American Journal of Public Health, 105(9), 1935–1942.
- 32 Tsai, J., & Cao, X. (2019). Association between suicide attempts and homelessness in a population-based sample of US Veterans and non-Veterans. Journal of Epidemiology and Community Health, 73(4), 346–352.
- 33 Holliday, R., Hoffmire, C. A., Martin, W. B., Hoff, R. A., & Monteith, L. L. (2021). Associations between justice involvement and PTSD and depressive symptoms, suicidal ideation, and suicide attempt among post-9/11 veterans. *Psychological Trauma*, 13(7), 730–739.
- 34 Nahin R. L. (2017). Severe Pain in Veterans: The effect of age and sex, and comparisons with the general population. The Journal of Pain, 18(3), 247–254.
- 35 Racine, M. (2018). Chronic pain and suicide risk: A comprehensive review. Progress in Neuro-Psychopharmacology and Biological Psychiatry, 87, 269–80.
- 16 Tang, N. K. & Crane, C. (2006). Suicidality in chonic pain: A review of the prevalence, risk factors and psychological linksl. *Psychological Medicine*, 36(5), 575–86.

