Special Surveillance Report Veteran Suicide

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Introduction

Suicide is defined as an act of intentional self-harm resulting in death and is a pressing public health concern in Nevada. High rates of suicide can result in public complacency, diminishing discussion and community action. The consequence can be a lack of preparedness for preventing these deaths and the secondary harm they cause.

Suicide is an action often taken by individuals who feel isolated and hopeless, with high levels of emotional pain, physical pain, family and personal problems, and financial stress. Nevada's military veterans, particularly younger veterans, are dying from suicide at rates above the state's rate.

A veteran who is recently released from active duty, reserve, or National Guard is often one who has experienced wars of the last decade. Veterans may have endured deployments that disrupt life with family and friends, even considering the unprecedented access to technology that enhances communication with loved ones. Deployments bring exposure to long periods of numbing routine with time to worry about crises occurring at home, interspersed with moments of extreme violence and death.

Individuals in uniform yet not deployed into actual war zones may experience continuous training for performing a wartime mission, longer assignments to other hot regions, delayed discharges, emotional turmoil of friends who are injured or killed, and guilt for "not being there to help." The stress of being in military service can include feeling cut off and isolated from "the real world" where birthdays and holidays are observed along with weddings, funerals, and the arrival of new babies. Deployment brings concern for family back home who deal with everyday emergencies such as car or home repairs and school activities.

The paradox of military service during wartime is that even though exposure to trauma, violence, and isolation from loved ones occurs, the service member often feels a tremendous sense of pride, belonging, purpose, and accomplishment. The dynamics of belonging to a unit with support structures and certainty enhances the resilience of the individual. However, discharge or return to reserve status can strip away these supports, plunging an individual into a struggling economy characterized by loss of jobs, homes, and friends. This confluence of circumstance and experience can result in feelings of loss and hopelessness that for some leads to thoughts of suicide.

The data and information contained in this report highlights the need for efforts to address and prevent this public health problem. This document is intended to be a brief examination of suicide, not a full discussion or action plan.

Data Sources

Behavioral Risk Factor Surveillance System (BRFSS): The BRFSS is the nation's premiere telephone and landline survey conducted annually by the Centers for Disease Control and Prevention (CDC), collecting state data about U.S. residents 18 years and older regarding their health-related risk behaviors, chronic health conditions, and use of preventive services. First established in 1984 with 15 states, BRFSS information is now collected in all 50 states, District of Columbia and three U.S. territories.

Center for Health Information and Analysis (CHIA): Hospitalization data in this report are collected by CHIA, a research center housed at the University of Nevada, Las Vegas. CHIA collects billing records from all hospital inpatient, outpatient and ambulatory surgical centers. More information can be found at http://www.chiaunlv.com/index.php.

Nevada Electronic Death Registry System: Mortality data in this report are from Nevada's Electronic Death Registry System, collected by the Office of Vital Records. In this report, the top 10 primary causes of death are ranked from highest to lowest based on frequency of occurrence. Death data from 2010 to 2017 was finalized in 2018. This included the addition of out of state deaths and data cleaning. Data in previous reports were preliminary and therefore may not match exactly to data in this report.

Nevada Veteran Population Demographics: Nevada veteran population by age groups and sex from 2013 to 2017 were gathered from the U.S. Department of Veteran Affairs website. More information at https://www.va.gov/vetdata/veteran_population.asp.

Nevada Non-Veteran Population Demographics: Non-veteran population estimates were calculated by subtracting the veteran populations from the Nevada population estimates. Nevada population estimates are from vintage year 2017 data, provided by the Nevada State Demographer. Data include individuals living in group quarters, as defined by the Nevada State Demographer.

U.S. Population: The U.S. Census Bureau's U.S. 2010 standard population was used to create ageadjusted weights. More information at <u>https://www.census.gov/prod/cen2010/briefs/c2010br-03.pdf</u>.

Technical Notes

Age-adjusted rates are included in this report. Age-adjusting is used in order to control the effects of differences in rates that result from age differences in the populations being compared. For example, heart disease death rates would be higher in a population comprised of older individuals compared to a population comprised of younger individuals. In this report, age-adjusting is applied to eliminate the effects of age distribution between veteran and non-veteran populations.

Age-adjusted rates are weighted to the 2010 standard population provided by the U.S. Census. Population distributions changed significantly between 2000 and 2010. Some previous versions of this report used 2000 standard populations, and therefore there are differences in rates from previously published reports. The weights table can be found in the Appendix Section, Figure A1.

All age-adjusted rates are based on the standard population distribution for the population aged 20 and older. The Nevada veteran population breakdown by age groups is provided by the U.S. Department of Veteran Affairs, which categorizes all veterans under the age of 20 into a single population group. Some Nevadans aged under 18 had the "Military Status" box checked as "yes" on their death certificates due

to error or perhaps enrollment in delayed military entry programs. Since these individuals cannot be considered veterans and are not the target group in this report, and may skew age-adjusted rates, only individuals aged 20 and over at time of death are included in this report.

Race/Ethnicities in this report are broken down into White, Black, Native American, Asian, Hispanic and Other/Unknown. White, Black, Native American and Asian categories are all non-Hispanic.

Identifying veteran status within the hospitalization data collected by CHIA is reliant (with limitations) to a payer code of TRICARE (formerly CHAMPUS, Civilian Health and Medical Program of the Uniformed Services) and CHAMPVA (Civilian Health and Medical Program of the Department of Veteran's Affairs). TRICARE is a Department of defense health care program for "active duty and retired members of the uniformed services, their families, and survivors," per <u>benefits.gov</u>, and CHAMPVA is a Veteran's Affairs program. Because of this limitation the hospitalization section of this report may contain dependents and spouses of veterans who are covered through these payer sources.

Hospitalization data from CHIA is representative of the number of visits and not the number of unique individuals. Therefore, a single person may be counted multiple times.

Due to the transition in billing schemas from ICD 9 to ICD 10, suicide attempt on or before October 1, 2015 are identified by an External Code of Injury (E-Codes), and suicide attempts after October 1, 2015 are identified by specific T and X codes. Due to these coding changes, please use caution when comparing data before and after October 1, 2015.

Suicide-Related Deaths

This section of the report will focus on deaths in Nevada as they relate to suicide and veteran status of Nevada residents. In preparing this section of the report it was determined to compare the Nevada veteran population to Nevada's non-veteran population. This determination was made to ensure a person's veteran status was clearly identified through an individual's death certificate, and no assumptions were made to the status. The Nevada death certificate inquires on veteran status, but this is not always completed. Due to this limitation, care should be taken in comparing total number of deaths, percentages and rates reported within this report to other topical reports, as well as the total number of deceased Nevada residents in any given year.

Between 2013 and 2017, there were a total of 113,435 Nevada resident deaths. Of these deaths, 1,895 were under the age of 20, 444 deaths had an unknown age, and 2,499 had an unknown veteran status. Records with age under 20, unknown age, and unknown veteran status were not mutually exclusive, and there were cases of overlap. For comparative purposes, individuals with either unknown age, ages under 20, and/or unknown veteran have been excluded from this section of the report, leaving a total of 108,675 deaths.

Rank	Primary Cause of Death	Count	% of Total Deaths
	Veteran	÷	
1	Diseases of the heart	8,829	30%
2	Malignant neoplasms	6,711	23%
3	Chronic lower respiratory diseases	2,234	8%
4	Cerebrovascular diseases (stroke)	1,126	4%
5	Alzheimer's disease	790	3%
6	Influenza and pneumonia	774	3%
7	Nontransport accidents	729	2%
8	Intentional self-harm (suicide)	606	2%
9	Diabetes mellitus	593	2%
10	Nephritis, nephrotic syndrome and nephrosis	453	2%
11	All Other Causes	6,375	22%
	Total	29,220	100%
	Non-Veteran		
1	Diseases of the heart	19,833	25%
2	Malignant neoplasms	17,485	22%
3	Chronic lower respiratory diseases	5,515	7%
4	Cerebrovascular diseases (stroke)	3,792	5%
5	Nontransport accidents	3,530	4%
6	Alzheimer's disease	2,495	3%
7	Influenza and pneumonia	2,093	3%
8	Intentional self-harm (suicide)	2,070	3%
9	Diabetes mellitus	1,667	2%
10	Chronic liver disease and cirrhosis	1,632	2%
11	All Other Causes	19,343	24%
11			

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Diseases of the heart was the number one primary cause of death to Nevada residents, accounting for 30% of veteran deaths and 25% of non-veteran deaths.

Suicide ranks as the number eighth primary cause of death among both veterans (two percent of total veteran deaths), and non-veterans (three percent of total non-veteran deaths).

Year of	Veteran Status	Age Group								
Death		20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	Total
2013	Veteran	7	37	47	172	619	1,313	1,823	1,541	5,559
2015	Non-Veteran	146	406	598	1,450	2,468	3,025	3,324	3,229	14,646
2014	Veteran	6	39	46	154	603	1,412	1,895	1,555	5,710
2014	Non-Veteran	156	395	643	1,459	2,518	3,257	3,233	3,150	14,811
2015	Veteran	6	29	47	192	519	1,453	1,869	1,739	5,854
2015	Non-Veteran	162	456	683	1,438	2,725	3,459	3,507	3,454	15,884
2016	Veteran	8	21	41	170	525	1,497	1,918	1,728	5,908
2016	Non-Veteran	189	470	700	1,534	2,810	3,714	3 <i>,</i> 863	3 <i>,</i> 635	16,915
2017	Veteran	6	27	56	158	535	1,551	1,960	1,896	6,189
2017	Non-Veteran	180	497	678	1,454	2,872	3,786	4,022	3,710	17,199
Total	Veteran	33	153	237	846	2,801	7,226	9,465	8,459	29,220
Total	Non-Veteran	833	2,224	3,302	7,335	13,393	17,241	17,949	17,178	79,455

Figure 2. Total Count of Deaths by Veteran Status and Age Group. Nevada Residents Ages 20+, 2013-2017.

Total veteran deaths comprise a range of 26% (2016 and 2017) of total deaths in Nevada of individuals aged 20 to 28% (2013 and 2014). This fluctuation is expected and should not be interpreted as significant changes. It represents both changes in numbers of deaths as well as population changes.

Figure 3. Non-Veteran Death Counts by Manner of Death and Race/Ethnicity. Nevada Residents Ages 20+, 2013-2017.

		Race/Ethnicity								
Manner of Death	Year of Death	White	Black	Native American	Asian	Hispanic	Other/ Unknown	Total		
Assault	2013	56	30	3	2	21	1	113		
Intentional Self-harm	2013	302	12	6	14	38	1	373		
Accident	2013	640	59	16	35	104	3	857		
All Other	2013	10,178	1,060	98	754	1,173	40	13,303		
Total	2013	11,176	1,161	123	805	1,336	45	14,646		
Assault	2014	56	48	1	6	31	0	142		
Intentional Self-harm	2014	310	20	8	14	50	1	403		
Accident	2014	584	75	13	32	104	7	815		
All Other	2014	10,108	1,098	104	791	1,289	61	13,451		
Total	2014	11,058	1,241	126	843	1,474	69	14,811		
Assault	2015	66	46	1	4	38	0	155		
Intentional Self-harm	2015	309	17	5	23	46	2	402		
Accident	2015	679	81	12	48	153	2	975		
All Other	2015	10,693	1,224	114	924	1,351	46	14,352		
Total	2015	11,747	1,368	132	999	1,588	50	15,884		
Assault	2016	49	52	1	11	48	0	161		
Intentional Self-harm	2016	332	27	5	29	57	2	452		
Accident	2016	712	98	15	50	125	2	1,002		
All Other	2016	11,283	1,273	158	1,026	1,490	70	15,300		
Total	2016	12,376	1,450	179	1,116	1,720	74	16,915		
Assault	2017	61	59	3	12	38	0	173		
Intentional Self-harm	2017	327	30	3	29	50	1	440		
Accident	2017	763	85	10	46	141	4	1,049		
All Other	2017	11,192	1,413	155	1,137	1,577	63	15,537		
Total	2017	12,343	1,587	171	1,224	1,806	68	17,199		
Assault	2013-2017	288	235	9	35	176	1	744		
Intentional Self-harm	2013-2017	1,580	106	27	109	241	7	2,070		
Accident	2013-2017	3,378	398	66	211	627	18	4,698		
All Other	2013-2017	53,454	6,068	629	4,632	6,880	280	71,943		
Total	2013-2017	58,700	6,807	731	4,987	7,924	306	79,455		

Figure 4. Veteran Death Counts by Manner of Death and Race/Ethnicity. Nevada Residents Ages 20+,
2013-2017.

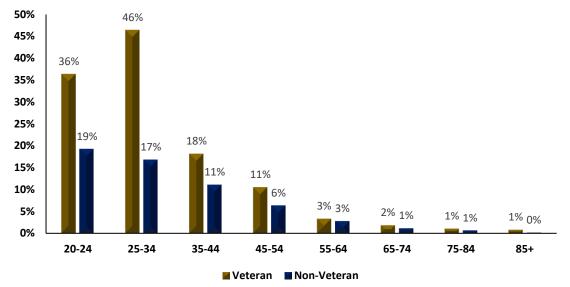
	Year of	Race/Ethnicity								
Manner of Death	Death	White	Black	Native American	Asian	Hispanic	Other/ Unknown	Total		
Assault	2013	12	2	0	0	0	0	14		
Intentional Self-harm	2013	108	8	1	2	5	1	125		
Accident	2013	140	16	1	3	5	0	165		
All Other	2013	4,620	320	40	107	158	10	5,255		
Total	2013	4,880	346	42	112	168	11	5,559		
Assault	2014	11	2	0	0	2	0	15		
Intentional Self-harm	2014	112	6	0	1	6	0	125		
Accident	2014	144	9	3	4	11	0	171		
All Other	2014	4,764	321	35	118	142	19	5,399		
Total	2014	5,031	338	38	123	161	19	5,710		
Assault	2015	12	0	0	1	1	0	14		
Intentional Self-harm	2015	92	3	1	4	5	0	105		
Accident	2015	150	14	3	2	12	0	181		
All Other	2015	4,844	368	33	114	182	13	5,554		
Total	2015	5,098	385	37	121	200	13	5,854		
Assault	2016	9	2	1	1	1	0	14		
Intentional Self-harm	2016	116	6	1	1	3	0	127		
Accident	2016	185	17	0	4	4	0	210		
All Other	2016	4,856	373	34	112	168	14	5,557		
Total	2016	5,166	398	36	118	176	14	5,908		
Assault	2017	8	3	0	0	3	0	14		
Intentional Self-harm	2017	112	5	1	1	5	0	124		
Accident	2017	197	16	0	7	9	0	229		
All Other	2017	5,012	426	30	147	190	17	5,822		
Total	2017	5,329	450	31	155	207	17	6,189		
Assault	2013-2017	52	9	1	2	7	0	71		
Intentional Self-harm	2013-2017	540	28	4	9	24	1	606		
Accident	2013-2017	816	72	7	20	41	0	956		
All Other	2013-2017	24,096	1,808	172	598	840	73	27,587		
Total	2013-2017	25,504	1,917	184	629	912	74	29,220		

When veteran deaths are broken down by Race/Ethnicity, Whites accounted for 87% of the total deaths (N=25,504), followed by Blacks accounting for 7% of total veteran deaths (N=1,917), and Hispanics at 3% (N=912) between 2013 and 2017. This race/ethnicity breakdown of deaths differs from the non-veteran

population, which Whites accounted for 74% of deaths, followed by Hispanics at 10% and Blacks at 9% of deaths.

Among veteran suicides from 2013 to 2017, 89% were White, followed by 5% Black, 4% Hispanic, and 1% for each Native American and Asian race. The racial breakdown of non-veteran suicides is 76% White, 12% Hispanic, 5% Asian, 5% Black, and 1% Native American.

Figure 5. Percentage of Total Deaths that had a Cause of Death Indicated as Suicide by Veteran Status by Age Group. Nevada Residents Ages 20+, 2013-2017 Combined.



When broken down by age groups between 2013 and 2017, 46% of the veteran deaths of Nevada residents aged 25-34 (N=153) were due to suicide (N=71). This is not like the non-veteran population in the same age group with 17% of deaths in this age group (N=2,224) due to suicide (N=373). Suicides made up a higher percentage of deaths among veterans compared to non-veterans in all but two age groups, where it was equally at three percent in the 55-64 age group and at one percent in the 75-84 age group.

When examining percentages, the reader should take into consideration that most 25-34 year olds are less likely to pass away due to disease and natural causes compared to older adults.

Year of	Veteran				Age G	roup				Total
Death	Status	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	TOLAI
2013	Veteran	~	18	9	25	20	24	14	12	125
2013	Non-Veteran	24	76	52	96	66	40	14	5	373
2014	Veteran	~	16	9	18	19	27	20	15	125
2014	Non-Veteran	33	71	75	85	72	36	23	8	403
2015	Veteran	~	13	7	13	13	32	15	9	105
2015	Non-Veteran	30	67	73	93	90	28	18	3	402
2016	Veteran	~	9	8	14	17	29	32	15	127
2016	Non-Veteran	30	82	89	96	72	50	28	5	452
2017	Veteran	~	15	10	19	24	20	18	16	124
2017	Non-Veteran	43	77	76	95	70	42	32	5	440
Tatal	Veteran	12	71	43	89	93	132	99	67	606
Total	Non-Veteran	160	373	365	465	370	196	115	26	2,070

Figure 6. Total Count of Suicide-Related Deaths by Veteran Status and Age Group. Nevada Residents Ages 20+, 2013-2017.

Note: ~ *denotes suppression due to confidentiality.*

Of the 108,675 deaths included within this report between 2013 and 2017, 2,676 died due to suicide, and 606 or 23% of those suicide deaths were reported as having a veteran status. The highest number of reported veteran suicides occurred in 2016 (N=127) with the lowest number reported the previous year (N=105). From 2013 to 2017 there were no significant increases or decreases in the number of veteran suicides in Nevada.

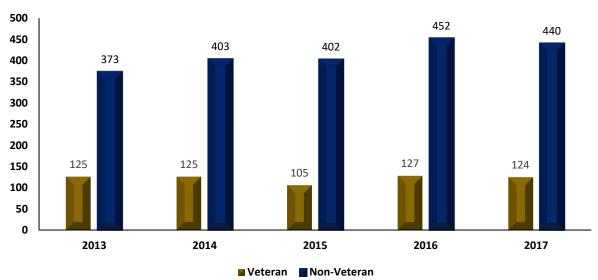


Figure 7. Counts of Suicide-Related Deaths by Year and Veteran Status. Nevada Residents Ages 20+, 2013-2017.

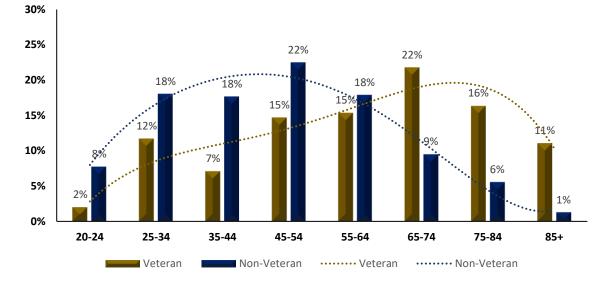


Figure 8. Age Distribution of Suicide-Related Deaths by Veteran Status. Nevada Residents Aged 20+, 2013-2017 Combined.

The trend shows an increase in non-veteran suicide deaths as age increases until the 45-54 age group, followed by a steady decline. This is different in the veteran population, where suicide deaths increase as age increases until the 65-74 age group before they start to decline. This demonstrates that veteran suicides are skewed to an older population.

The differences in the age distributions between veteran and non-veteran suicides represented above are likely due to the differences in the age distributions of those populations in general. Notice from Figure 9 that veteran vs. non-veteran populations follow a similar distribution.

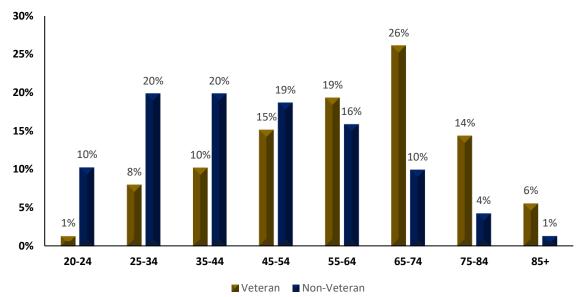


Figure 9. Age Distribution of Population by Veteran Status. Nevada Residents Ages 20+, 2013-2017 Combined.

Year of		Age Group								
Death	Veteran Status	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	Total
2012	Veteran (N=125)	2%	14%	7%	20%	16%	19%	11%	10%	100%
2013	Non-Veteran (N=373)	6%	20%	14%	26%	18%	11%	4%	1%	100%
2014	Veteran (N=125)	1%	13%	7%	14%	15%	22%	16%	12%	100%
2014	Non-Veteran (N=403)	8%	18%	19%	21%	18%	9%	6%	2%	100%
2045	Veteran (N=105)	3%	12%	7%	12%	12%	30%	14%	9%	100%
2015	Non-Veteran (N=402)	7%	17%	18%	23%	22%	7%	4%	1%	100%
2016	Veteran (N=127)	2%	7%	6%	11%	13%	23%	25%	12%	100%
2016	Non-Veteran (N=452)	7%	17%	18%	23%	22%	7%	4%	1%	100%
2017	Veteran (N=124)	2%	7%	6%	11%	13%	23%	25%	12%	100%
2017	Non-Veteran (N=440)	7%	18%	20%	21%	16%	11%	6%	1%	100%
Tatal	Veteran (N=606)	2%	12%	7%	15%	15%	22%	16%	11%	100%
Total	Non-Veteran (N = 2,070)	8%	18%	18%	22%	18%	9%	6%	1%	100%

Figure 10. Age Distribution of Suicide-Related Deaths by Veteran Status. Nevada Residents Ages 20+, 2013-2017.

Figure 11. Suicide-Related Deaths by Year, Veteran Status, and Method of Suicide. Nevada Residents Ages 20+, 2013-2017.

				Met	hod of Suicid	le			
Year of Death		Poisoning by Solid, Liquid or Gaseous Substance	Hanging/ Strangulation/ Suffocation	Drowning/ Submersion	Firearm/ Airgun/ Explosive	Cutting/ Piercing Instrument	Jumping from Height	Other	Total
2013	Veteran	20	21	0	77	4	2	1	125
2015	Non-Veteran	89	67	1	189	9	6	12	373
2014	Veteran	14	16	1	87	2	2	3	125
2014	Non-Veteran	79	96	2	202	6	9	9	403
2015	Veteran	9	13	1	79	1	0	2	105
2015	Non-Veteran	88	100	0	187	5	15	7	402
2016	Veteran	17	10	1	97	1	1	0	127
2016	Non-Veteran	110	102	4	201	11	14	10	452
2017	Veteran	19	18	0	83	3	0	1	124
2017	Non-Veteran	95	93	0	215	8	22	7	440
Total	Veteran	79	78	3	423	11	5	7	606
Total	Non-Veteran	461	458	7	994	39	66	45	2,070

Among the veteran population from 2013 to 2017, the highest percentage of suicides occurred in the 65-74 age group, accounting for 22% of the 606 suicide-related deaths, compared to 9% of the non-veteran suicide deaths. The highest percentage of suicides among the non-veteran population occurred in the 45-54 age group, accounting for 22% of the deaths, compared to 15% of veteran deaths. Disparities occur between the veteran and non-veteran populations among all eight age groups, ranging from a 3% to a 13% difference.

Figure 12. Percent of Non-Veteran Suicide-Related Deaths by Method and Sex. Nevada Residents Ages 20+, 2013-2017 Combined.

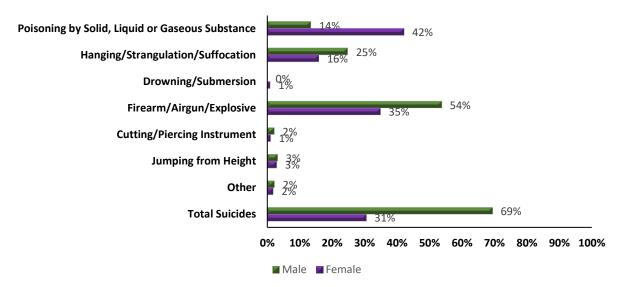
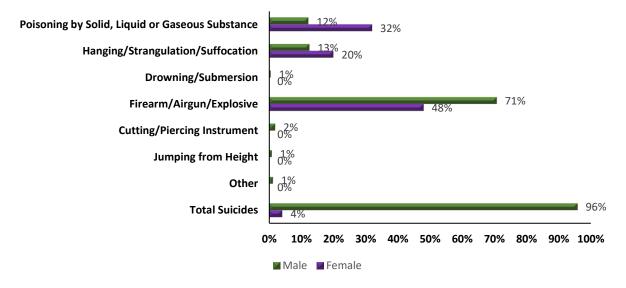


Figure 13. Percent of Veteran Suicide-Related Deaths by Method and Sex. Nevada Residents Ages 20+, 2013-2017 Combined.



Among the male population, 71% of the veteran suicides committed were done by firearm/airgun/explosive, compared to approximately half of non-veteran suicides (54%). Among the female population, the greatest difference in method was poisoning, which accounted for only 32% of veteran suicide deaths but 42% of non-veteran suicide deaths.

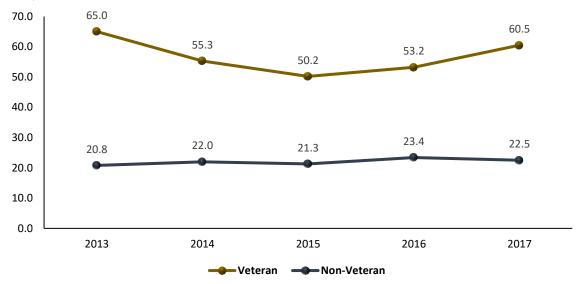


Figure 14. Suicide Age-Adjusted Rates (per 100,000) by Year and Veteran Status. Nevada Residents Ages 20+, 2013-2017.

Veteran suicide rates (per 100,000) have varied between 2013 and 2017 with a peak rate of 65.0 per 100,000 veteran population in 2013 compared to the lowest rate of 50.2 per 100,000 veteran population in 2015. This contrasts with the rate per 100,000 of non-veteran suicides, with rates continually between 20.8 and 23.4 per 100,000 non-veterans. These rates demonstrate a significant increased risk for a veteran to complete suicide compared to the non-veteran population of Nevada residents.

Complete tables of counts, crude rates, age-adjusted rates and confidence intervals for each year from 2013 to 2017 can be viewed in the appendices.

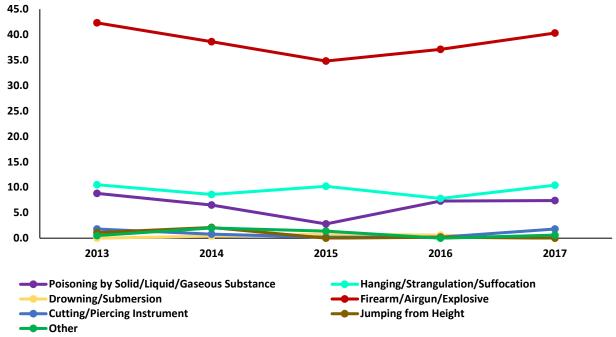


Figure 15. Methods of Suicide Age-Adjusted Rates (per 100,000) by Year, Veteran Nevada Residents Ages 20+, 2013-2017.

Figure 16. Methods of Suicide Age-Adjusted Rates (per 100,000) by Year, Non-Veteran Nevada Residents Ages 20+, 2013-2017.

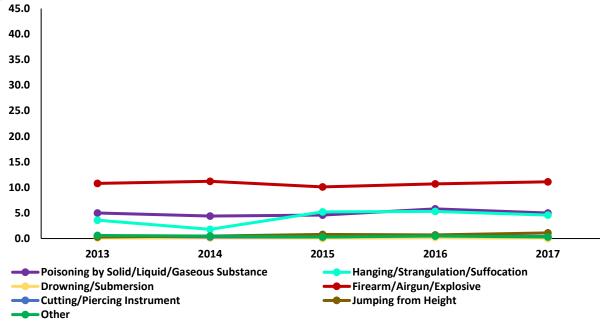




Figure 17. Firearms/Explosives as the Method of Suicide, Age-Adjusted Rates (per 100,000) by Year and Veteran Status. Nevada Residents Ages 20+, 2013-2017.

The rates (per 100,000) at which firearms/explosives were used as the method of suicide was greater in the veteran population compared to non-veteran population in all years from 2013 to 2017. The veteran suicide rate by firearms/explosives varied from a low of 34.8 in 2015 to a high of 42.3 in 2013. The rate of suicide by firearms/explosives in the non-veteran community was consistent from 2013 to 2017, varying in a range from 10.1 to 11.1. Of the 606 veteran suicides between 2013 and 2017, 70% (N=423) had a reported method of suicide as firearms/explosions. When broken down by gender a firearm was the method of suicide in 71% of veteran suicides completed by males (N=411), and 48% of females (N=12).

Suicide-Related Hospitalizations

TRICARE and Civilian Health and Medical Program of the Department of Veteran's Affairs (CHAMPVA), are health care benefits programs in which the Department of Defense and Department of Veteran's Affairs, respectively, share the cost of health care services. Because service members' families are covered by these two programs and veteran status is not identified in the billing data, the term "military community" is used in this report to distinguish the veteran population from the non-veteran population. The veteran population in the suicide-related emergency department visits and inpatient admissions section includes any individual that is covered through TRICARE and CHAMPVA, including spouses and dependents of military members.

In the military community there were 294 emergency department visits and 186 inpatient admissions related to suicide in 2013-2017 combined. Of the 294, three individuals died, and 291 were discharged, transferred, left against medical advice, or admitted as an inpatient. Of the 186 inpatient admissions, seven individuals died, and 179 admissions were discharged, transferred, or left against medical advice.

In the non-military community there were 14,622 emergency department visits and 6,595 inpatient admissions related to suicide in 2013 to 2017 combined. Of the 14,622, 120 individuals died, and 14,502 visits were discharged, transferred, left against medical advice, or admitted as an inpatient. Of the 6,595, 200 individuals died, and 6,395 admissions were discharged, transferred, or left against medical advice.

		Military Co	ommunity		Non-Military Community				
Sex	Emerg Departme	•	Inpat Admis		Emerge Departme	•	Inpatient Admissions		
	Count	%	Count	%	Count	%	Count	%	
Female	176	60%	100	54%	8,816	60%	3,850	58%	
Male	118	40%	86	46%	5,804	40%	2,743	42%	
Unknown	0	0%	0	0%	2	0%	2	0%	
Total	294	100%	186 100%		14,622	100%	6,595	100%	

Figure 18. Suicide-Related Emergency Department Visits and Inpatient Admissions by Military Community Status and Sex. Nevada Residents, 2013-2017 Combined.

In contrast to the gender distribution of suicide deaths, suicide-related emergency department visits among the military community (N=448) between 2013 and 2017 were more common in females (60%, N=176) than males (40%, N=118). The same trend is seen inpatient admissions, with females from the military community comprising the majority of visits, 54% (N=100), compared to males (46%, N=86). Females in the non-military community comprised the majority as well of both emergency department visits (60%) and inpatient admissions (58%).

		Military C	ommunity		Nor	n-Military	Communit	у	
Age Group	Emerg Departme	•	Inpat Admis		Emerg Departme	-	Inpat Admis	ent	
	Count	Count %		%	Count	%	Count	%	
5-14	18	6%	14	8%	898	6%	210	3%	
15-24	110	37%	49	26%	4,846	33%	1,308	20%	
25-34	58	20%	31	17%	3,256	22%	1,194	18%	
35-44	35	12%	21	11%	2,259	15%	1,171	18%	
45-54	28	10%	19	10%	1,948	13%	1,198	18%	
55-64	35	12%	37	20%	963	7%	896	14%	
65-74	8	3%	11	6%	304	2%	398	6%	
75-84	1	0%	1	1%	91	1%	154	2%	
85+	1	0%	3	2%	45	0%	66	1%	
Total	294	100%	186	100%	14,622	100%	6,595	100%	

Figure 19. Suicide-Related Emergency Department Visits and Inpatient Admissions by Military Community Status and Age-Group. Nevada Residents, 2013-2017 Combined.

The 15-24 age-group had the highest number of inpatient admissions and emergency department visits between 2013 and 2017 in both communities and categories of hospitalizations. It is important to note that the individuals in the military community included in Figure 19 may include spouses and dependents of military members, as well as veterans, and may not be comparable to the suicide death data. It is unclear if the released patients received mental and behavioral health services after the attempts.

			Year			Tetal	0/
Method of Suicide Attempt	2013	2014	2015	2016	2017	Total	%
Military Community	-	-	-			-	-
Poisoning by Solid, Liquid or Gaseous Substance	34	51	38	37	21	181	62%
Hanging/Strangulation/Suffocation	3	0	1	0	0	4	1%
Firearm/Air Gun/Explosive	1	1	0	1	1	4	1%
Cutting/Piercing Instrument	23	20	21	8	19	91	31%
Jumping from Height	0	0	0	0	0	0	0%
Late effects of self-inflicted injury	0	0	0	0	0	0	0%
Other and unspecified means	3	2	2	9	7	23	8%
Total	63	71	58	55	47	294	100%
Non-Military Community							
Poisoning by Solid, Liquid or Gaseous Substance	1,851	1,928	1,878	1,276	1,259	8,192	56%
Hanging/Strangulation/Suffocation	87	90	87	23	19	306	2%
Firearm/Air Gun/Explosive	29	30	23	24	27	133	1%
Cutting/Piercing Instrument	917	943	1,014	821	916	4,611	32%
	4.5	13	21	16	12	77	1%
Jumping from Height	15	15					
Jumping from Height Late effects of self-inflicted injury	3	8	6	4	0	21	0%
			6 331	4 344	0 299	21 1,565	0% 11%

Figure 20. Suicide-Related Emergency Department Visits by Military Community Status, Method of Attempts and Year. Nevada Residents, 2013-2017.

In total, the highest reported method of attempted suicide resulting in emergency department visits is poisonings, accounting for 62% of all methods of attempted suicide among the military community and 56% of the non-military community.

A single suicide-related hospitalization may have multiple methods listed. Therefore, the numbers listed in figure 20 cannot be summed to equal the total number of suicide-related hospitalizations. This applies to both the inpatient and emergency department sections.

			Year			Tatal	0/
Method of Suicide Attempt	2013	2014	2015	2016	2017	Total	%
Military Community	-					-	
Poisoning by Solid, Liquid or Gaseous Substance	25	21	19	14	20	99	53%
Hanging/Strangulation/Suffocation	1	0	2	2	0	5	3%
Firearm/Air Gun/Explosive	0	0	0	1	6	7	4%
Cutting/Piercing Instrument	17	1	11	9	19	57	31%
Jumping from Height	1	1	0	1	0	3	2%
Late effects of self-inflicted injury	0	0	0	4	5	9	5%
Other and unspecified means	1	0	4	1	3	9	5%
Total	45	23	34	32	52	186	100%
Non-Military Community							
Poisoning by Solid, Liquid or Gaseous Substance	1,087	1,056	1,054	864	903	4,964	75%
Hanging/Strangulation/Suffocation	36	39	28	13	26	142	2%
Firearm/Air Gun/Explosive	36 33	39 31	28 23	13 25	26 38	142 150	2% 2%
Firearm/Air Gun/Explosive	33	31	23	25	38	150	2%
Firearm/Air Gun/Explosive Cutting/Piercing Instrument	33 143	31 116	23 152	25 137	38 162	150 710	2% 11%
Firearm/Air Gun/Explosive Cutting/Piercing Instrument Jumping from Height	33 143 5	31 116 15	23 152 12	25 137 12	38 162 8	150 710 52	2% 11% 1%

Figure 21. Suicide-Related Inpatient Admissions by Military Community Status, Method of Attempts and Year. Nevada Residents, 2013-2017.

In total, the highest reported method of attempted suicide resulting in inpatient admissions is poisonings, indicated on 53% of the admissions in the military community and 75% of admissions in the non-military community.

A single suicide-related hospitalization may have multiple methods listed. Therefore, the numbers listed in figure 21 cannot be summed to equal the total number of suicide-related hospitalizations. This applies to both the inpatient and emergency department sections.

Behavioral Risk Factor Surveillance System (BRFSS)

The BRFSS inquires on each participant's veteran status. Between 2013 and 2017, BRFSS participants were asked "During the past 12 months have you ever seriously considered attempting suicide?." Survey results are limited and are not available for further break down beyond what is provided below. This question was not asked for the survey conducted in 2014.

Figure 22. Percentage who Reported Suicide Ideology by Veteran Status and Year. Nevada Residents,
2013-2017.

Survey Year	Veteran Status	Percent Reported Suicide Ideation in Last 12 months	Confidence Interval
2013	Veteran	2%	(0.1% - 3.1%)
2015	Non-Veteran	2%	(1.2% - 3.3%)
2015	Veteran	2%	(0.1% - 3.1%)
2015	Non-Veteran	2%	(1.4% - 2.8%)
2016	Veteran	2%	(0.5% - 3.2%)
2010	Non-Veteran	4%	(2.8% - 4.8%)
2017	Veteran	2%	(0.0% - 3.7%)
2017	Non-Veteran	3%	(2.3%-4.5%)

Regarding percentage of participants who reported seriously considering attempting suicide during the past 12 months of taking the BRFSS survey, there is not a notable disparity between veteran and non-veteran populations.

Conclusion

This report demonstrates the need for continued monitoring of veteran and military suicide deaths and continued efforts of prevention for this population. The rates of suicide among the veteran population fluctuates from year to year but overall remains more than double the rate of the non-veteran community.

The aging veteran population of Nevada residents seems in particular risk.

There is a demonstrated access to firearms and use of firearms as lethal means within the veteran population not demonstrated in the non-veteran population when it comes to method of suicide resulting in suicide deaths.

Efforts to prevent drug overdose and poisonings could assist in lowering the number of hospitalizations due to suicide attempts. Wrap around services for veterans and military families are needed to ensure identification of suicide ideology. If suicide ideology is discovered and addressed, this could prevent more members of the military community from attempting or taking their lives.

Appendix

Figure A1. Age-Adjusted weights

Age Group	Weight
Age20_24_WEIGHT	0.095734399
Age25_29_WEIGHT	0.093587182
Age30_34_WEIGHT	0.088532365
Age35_39_WEIGHT	0.089497173
Age40_44_WEIGHT	0.092651902
Age45_49_WEIGHT	0.10071312
Age50_54_WEIGHT	0.098892694
Age55_59_WEIGHT	0.087213859
Age60_64_WEIGHT	0.074587877
Age65_69_WEIGHT	0.055150675
Age70_74_WEIGHT	0.041148878
Age75_79_WEIGHT	0.032454588
Age80_84_WEIGHT	0.025471786
Age85_WEIGHT	0.024363501

2013																				
							Veteran	Status			New Veloce									
	Veteran	Non-Veteran		Veteran			Non-Veteran			Veteran			Non-Veteran							
Method of Suicide									Age-			Age-								
	C	ount	Crude Rate	CI Lower	CI Upper	Crude Rate	CI Lower	CI Upper	Adjusted	CI Lower	CI Upper	Adjusted	CI Lower	CI Upper						
									Rate			Rate								
Poisoning by Solid, Liquid or Gaseous Substances	2	0 89	8.7	4.9	12.5	4.3	3.4	5.2	8.8	5.0	12.7	5.0	3.9	6.0						
Hanging/Strangulation/Suffocation	2	1 67	9.1	5.2	13.0	3.3	2.5	4.0	10.5	6.0	14.9	3.6	2.8	4.5						
Drowning/Submersion		0 1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.2						
Firearms/Explosives	7	7 190	33.4	25.9	40.8	9.3	7.9	10.6	42.3	32.8	51.7	10.8	9.2	12.3						
Cutting/Piercing Instrument		4 9	1.7	0.0	3.4	0.4	0.2	0.7	1.8	0.0	3.6	0.5	0.2	0.8						
Jumped from Height		2 6	0.9	0.0	2.1	0.3	0.1	0.5	1.1	0.0	2.6	0.3	0.1	0.6						
Other		1 12	0.4	0.0	1.3	0.6	0.3	0.9	0.5	0.0	1.6	0.6	0.3	1.0						
Total	12	5 374	54.2	36.0	73.1	18.2	14.4	22.0	65.0	43.8	87.1	20.9	16.5	25.4						

Figure A3. Total Counts and Rates (per 100,000) by Method of Suicide and Veteran Status. Nevada Residents Ages 20+, 2014.

2014														
	Veteran Status													
	Veteran No			Veteran			Non-Veteran			Veteran			Non-Veteran	
Method of Suicide									Age-			Age-		
	Co	unt	Crude Rate	CI Lower	Cl Upper	Crude Rate	CI Lower	CI Upper	Adjusted	CI Lower	Cl Upper	Adjusted	CI Lower	CI Upper
									Rate			Rate		
Poisoning by Solid, Liquid or Gaseous Substances	14	79	6.1	2.9	9.4	3.8	2.9	4.6	6.5	3.1	9.9	4.4	3.5	5.4
Hanging/Strangulation/Suffocation	16	96	7.0	3.6	10.5	4.6	3.7	5.5	4.9	2.5	7.3	5.0	4.0	6.1
Drowning/Submersion	1	. 2	0.4	0.0	1.3	0.1	0.0	0.2	0.4	0.0	1.1	0.1	0.0	0.2
Firearms/Explosives	87	202	38.2	30.1	46.2	9.7	8.3	11.0	38.6	30.5	46.7	11.2	9.7	12.8
Cutting/Piercing Instrument	2	6	0.9	0.0	2.1	0.3	0.1	0.5	0.8	0.0	1.8	0.3	0.1	0.6
Jumped from Height	2	9	0.9	0.0	2.1	0.4	0.1	0.7	2.1	0.0	4.9	0.5	0.2	0.8
Other	3	9	1.3	0.0	2.8	0.4	0.1	0.7	2.0	0.0	4.2	0.5	0.2	0.8
Total	125	403	54.8	36.6	74.4	19.3	15.2	23.2	55.3	36.1	75.9	22.0	17.7	26.7

	2015													
	Veteran Status													
	Veteran	Non-Veteran		Veteran			Non-Veteran			Veteran		Non-Veteran		
Method of Suicide									Age-			Age-		
	Co	unt	Crude Rate	CI Lower	Cl Upper	Crude Rate	CI Lower	CI Upper	Adjusted	CI Lower	Cl Upper	Adjusted	CI Lower	CI Upper
									Rate			Rate		
Poisoning by Solid, Liquid or Gaseous Substances	9	88	4.0	1.4	6.6	4.1	3.3	5.0	2.8	1.0	4.6	4.6	3.7	5.6
Hanging/Strangulation/Suffocation	13	100	5.8	2.6	8.9	4.7	3.8	5.6	10.2	4.7	15.8	5.2	4.2	6.2
Drowning/Submersion	1	. 0	0.4	0.0	1.3	0.0	0.0	0.0	0.8	0.0	2.4	0.0	0.0	0.0
Firearms/Explosives	79	187	35.0	27.3	42.8	8.8	7.5	10.1	34.8	27.2	42.5	10.1	8.7	11.6
Cutting/Piercing Instrument	1	. 5	0.4	0.0	1.3	0.2	0.0	0.4	0.2	0.0	0.5	0.3	0.0	0.5
Jumped from Height	C	15	0.0	0.0	0.0	0.7	0.3	1.1	0.0	0.0	0.0	0.8	0.4	1.1
Other	2	7	0.9	0.0	2.1	0.3	0.1	0.6	1.4	0.0	3.3	0.3	0.1	0.6

Figure A4. Total Counts and Rates (per 100,000) by Method of Suicide and Veteran Status. Nevada Residents Ages 20+, 2015.

Figure A5. Total Counts and Rates (per 100,000) by Method of Suicide and Veteran Status. Nevada Residents Ages 20+, 2016.

2016														
	Veteran Status													
	Veteran	Non-Veteran		Veteran			Non-Veteran			Veteran			Non-Veteran	
Method of Suicide									Age-			Age-		
	C	ount	Crude Rate	CI Lower	Cl Upper	Crude Rate	CI Lower	Cl Upper	Adjusted	CI Lower	Cl Upper	Adjusted	CI Lower	CI Upper
									Rate			Rate		
Poisoning by Solid, Liquid or Gaseous Substances	1	7 111	7.7	4.0	11.3	5.1	4.2	6.1	7.3	3.9	10.8	5.8	4.7	6.9
Hanging/Strangulation/Suffocation	1	0 104	4.5	1.7	7.3	4.8	3.9	5.7	7.8	3.0	12.6	5.3	4.3	6.4
Drowning/Submersion		1 4	0.5	0.0	1.3	0.2	0.0	0.4	0.6	0.0	1.8	0.2	0.0	0.4
Firearms/Explosives	9	7 203	43.7	35.0	52.4	9.4	8.1	10.7	37.1	29.7	44.5	10.7	9.3	12.2
Cutting/Piercing Instrument		1 11	0.5	0.0	1.3	0.5	0.2	0.8	0.2	0.0	0.5	0.6	0.2	0.9
Jumped from Height		1 14	0.5	0.0	1.3	0.6	0.3	1.0	0.2	0.0	0.6	0.7	0.4	1.1
Other		0 10	0.0	0.0	0.0	0.5	0.2	0.7	0.0	0.0	0.0	0.5	0.2	0.8
Total	12	7 457	57.4	40.7	74.9	21.1	16.9	25.4	53.2	36.6	70.8	23.8	19.1	28.7

2017														
	Veteran Status													
	Veteran	Non-Veteran		Veteran Non-Veteran Veteran								Non-Veteran		
Method of Suicide									Age-			Age-		
	Co	ount	Crude Rate	CI Lower	Cl Upper	Crude Rate	CI Lower	CI Upper	Adjusted	CI Lower	CI Upper	Adjusted	CI Lower	Cl Upper
									Rate			Rate		
Poisoning by Solid, Liquid or Gaseous Substances	19	95	8.7	4.8	12.6	4.3	3.5	5.2	7.4	4.1	10.7	5.0	4.0	6.0
Hanging/Strangulation/Suffocation	18	93	8.2	4.4	12.0	4.2	3.4	5.1	10.4	5.6	15.2	4.6	3.7	5.6
Drowning/Submersion	() 0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Firearms/Explosives	83	215	38.0	29.8	46.2	9.8	8.5	11.1	40.3	31.6	48.9	11.1	9.6	12.6
Cutting/Piercing Instrument	3	8	1.4	0.0	2.9	0.4	0.1	0.6	1.8	0.0	3.9	0.4	0.1	0.7
Jumped from Height	() 22	0.0	0.0	0.0	1.0	0.6	1.4	0.0	0.0	0.0	1.1	0.6	1.5
Other	1	7	0.5	0.0	1.4	0.3	0.1	0.6	0.6	0.0	1.9	0.3	0.1	0.6
Total	124	440	56.8	39.0	75.1	20.0	16.2	24.0	60.5	41.3	80.6	22.5	18.1	27.0

Figure A6. Total Counts and Rates (per 100,000) by Method of Suicide and Veteran Status. Nevada Residents Ages 20+, 2017.