



Department of Alcohol &
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Department of
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Special Population Report: Mental Health Consumers with Military Service

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To better understand the population of veterans receiving services in the public mental health system, a sample of 101,792 records of consumers who received mental health services in SFY 2011 was extracted from the Ohio Behavioral Health (OH-BH) information system. This system, which captures both mental health and drug abuse treatment outcomes, is administered by the Ohio Department of Drug and Alcohol Services in collaboration with the Ohio Department of Mental Health. The sample used in the present study was submitted by agencies certified to provide both mental health and drug and alcohol treatment services. While dually-certified agencies represent about one-third of all agencies providing care, they are large agencies providing services to half of all consumers in the publically-funded system of care.

The sample of 101,792 adult and youth consumers on which this report is based represents about 28.1% of all those who received care in SFY 2011. Some 71,980 are adults over the age of 18, and 29,812 are youth consumers under age 18. There were 1,371 military veterans (active, disabled, and discharged) identified in the adult sample or 1.9% of the sample. If the sample of 71,980 adults is assumed to be representative of all consumers who received services in SFY 2011, an estimated 2,997 military veterans were served in SFY 2011.



Establishing mental health as a cornerstone of overall health

The following tables identify defining characteristics of our Veteran consumers. Other tables serve as comparison between the Veteran and Civilian adult consumers within our sample.

Table 1.
Status of Military Veterans in Sample (N = 71,980)

Status	Frequency	Percent
Civilian	70,609	98.1
Active Duty	13	<.1
Disabled Vet	26	<.1
Discharged	1,332	1.9
Total Vets	1,371	1.9
Total N	71,980	100%

Table 1 shows the distribution of veterans' current military status. Less than one percent is currently active or disabled. The majority have been discharged. Data on type of discharge were unavailable.

Table 2: Only about .9% of the total veteran sample served in Operation Iraqi Freedom (OIF). Around .4% served in Operation Enduring Freedom in Afghanistan. The remaining 98.6% served in the Vietnam era, Post-Vietnam Era, Persian Gulf – Middle East Era, and WWII.

Table 2.
Iraq and Afghan Veterans (N = 1,371)

Status	Frequency	Percent
Iraq*	13	.9
Afghan	6	.4
All Other Vets	1,352	98.6%

*Two vets in this sample served in both Iraq and Afghanistan.

Table 3.
Military Status of Iraqi and Afghani Vets (N = 19)

	Iraq	Afghanistan
Active Duty	0	1
Disabled	1	1
Discharged	12	4
Total N	13	6

Table 4 shows the age distribution of the veterans and civilians in the adult sample. The mean age of the veteran sample was 47.1, compared to 40.6 in the civilian sample. The majority of vets (67.1%) fall between the ages of 40 and 65, representing a large number of Vietnam era veterans in the sample. That same age group only makes up 47.1% of the civilian sample. The next largest age group, those between 26 and 39, served in the Gulf War Era and are underrepresented compared to the civilian sample. Younger veterans, age 18-25 are even more under-represented at only 4.1% compared to 16.2% of the civilians in Ohio's public mental health system. This age group can be expected to increase in the next several years.

Table 4.
Age Distribution of Veteran and Civilian Consumers
(N = 71,980)

Age Group	Vets	Civilians
Mean	47.1	40.6
Age 18-25	4.1	16.2
Age 26-39	23.5	33.2
Age 40-65	67.1	47.1
Age 66-80	4.5	3.1
Age 80+	.8	.4
Total	100%	100%

Table 5.
Gender Distribution of Veteran and Civilian Consumers
(N=71,980)

Gender	Vets	Civilians
Male	79.8	39.9
Female	20.2	60.1
Total N	100%	100%

Table 5 shows the difference in gender distribution between the veteran and civilian subpopulations in the adult sample. Males make up 79.8% of the veteran subpopulation, compared to just 39.9% of civilians. Females account for only 20.2% of the veterans while holding a 60.1% majority among civilians.

The racial distribution illustrated by Table 6 shows similarities between the veteran and civilian subpopulations. African Americans are over-represented in the both subpopulations compared to the general population in Ohio (about 13%) and make up a smaller percentage of veterans (17.8%) than the civilian in the illustrated clinical sample (19.1%). The percentage of Whites in the veteran group (79.4%) is slightly higher than in the civilian group (78.3%).

Table 6.
Racial Distribution of Veteran and Civilian Consumers
(N = 71,980)

Race Group	Vets	Civilians
Alaska Native	.0	.0
American Indian	.8	.6
Asian	.4	.3
Black/African-American	17.8	19.1
Native Hawaiian/Other PI	.2	.0
Two or More Races	.1	.1
Unknown	1.4	1.5
White	79.4	78.3
Total	100%	100%

Ohio's public mental health system does not contain many Hispanic consumers. The distribution is relatively similar between veteran and civilian subpopulations.

Table 7.
Ethnic Origins of Veteran and Civilian Consumers
(N = 71,980)

Ethnicity	Vets	Civilians
Cuban	0	0
Hispanic - Specific Origin Not Specified	0	0
Mexican	.3	.3
Not of Hispanic Origin	99.0	98.3
Other Specific Hispanic	.1	.5
Puerto Rican	.6	.6
Unknown	0	.1
Total	100%	100%

Table 8.
Living Arrangement of Veteran and Civilian Consumers at Admission (N = 71,980)

Living Situation at Admission	Vets	Civilians
Community Residence	.9	1.0
Correctional Facility	.9	.7
Crisis Care	1.0	.6
Foster Care	.1	1.0
Homeless	5.8	3.7
Hospital	.1	.1
Indep. Living (Own Home)	54.0	51.7
Licensed MR Facility	0	.2
Nursing Facility	.3	.4
Other	3.4	4.4
Other's Home	28.2	30.0
Residential Care	3.1	3.0
Respite Care	0	.1
State Hospital	.7	.4
Temporary Housing	.3	.3
Unknown	1.0	2.4
Total	100%	100%

Living arrangement at time of admission for the adult sample is displayed in Table 8. One significant difference between the groups is the higher rate of homelessness among veterans, 5.8% , compared to 3.7 among civilians. At the other end of the spectrum, however, veterans were among a greater number of those living independently (54%) than civilians (51.7%). Veterans were somewhat less likely to cohabit, or live in someone else's home (28.2%) than civilians (30%).

Table 9.
Employment Status of Veteran and Civilian
Consumers at Admission (N=71,980)

Employment Status at Admission	Vets	Civilians
Disabled	25.7	20.1
Engaged in Residential/Hospitalization	.1	0
Full Time Employed	9.4	7.4
Homemaker	2.6	4.1
Inmate of Jail/Prison/Corrections	1.8	1.1
Other not in Labor Force	12.2	10.8
Part Time Employed	6.1	7.6
Retired	2.7	1.8
Sheltered Employment	.3	.8
Student	1.5	8.4
Unemployed but Actively Looking for Work	35.9	35.9
Unknown	1.7	2.0
Volunteer Worker	.1	0
Total	100%	100%

Table 9 reports employment status at admission for our adult sample. More veterans report a disability status (25.7%) than the civilian group (20.1%). They are also far less likely to be enrolled in school than civilians, 1.5% to 8.4%, more likely to be retired, employed full time, or be an inmate of jail/prison at time of admission. Many (12.2%) are listed as 'Other-not in labor force,' which is higher than the 10.8% of civilians reporting the same. Both veterans and civilians in our sample are struggling to find work, with 35.9% of each unemployed and looking for work.

"Table 10 shows the education enrollment at admission, which for most veterans was not applicable, largely due to the age of our sample.

Table 10.
Educational Enrollment of Veteran and
Civilian Consumers at Admission (N= 71,980)

Education Enrollment	Vets	Civilians
College	1.8	1.7
GED Classes	.1	.3
Not Enrolled	96.5	94.8
Other School: Adult Basic Education-Literacy	.1	.2
Unknown	1.5	2.0
Vocational/Job Training	.1	.2
K Through 12th Grade	0	.9
Total	100%	100%

Table 11.
Diagnostic Grouping of Veteran and Civilian
Consumers at Admission (N =71,980)

Primary Diagnostic Group	Vets	Civilians
Substance-Related Disorders	3.9	2.6
Schizophrenia & Other Psychotic Disorders	23.0	16.4
Anxiety Disorders	5.0	6.9
Adjustment Reaction Disorders	10.7	12.0
Major Depression	31.2	32.6
Personality Disorders	.4	.8
Bipolar Disorders	17.8	17.2
All Other Mood Disorders	4.0	4.4
All Other Diagnoses	3.7	6.8
Missing	.3	.5
Total	100%	100%

The distribution of diagnostic conditions in Table 11 provides an interesting comparison between veteran and civilian groups. Substance abuse is slightly higher among veterans at 3.9% compared to 2.6% among civilians. Schizophrenia and Other Psychotic Disorders are disproportionately high for veterans (23% compared to 16.4%). All Other Diagnoses are higher among civilians (6.8%) than vets (3.7%). Both Anxiety and Adjustment Reaction Disorders are higher among civilians than veterans.

Veterans' Change in Status from Admission to Discharge

Data were available for a small percentage of the veteran subpopulation related to change in status from admission to discharge in the following outcomes: living arrangement, employment, education enrollment, and arrests. The majority of the consumers in our sample are still open cases, and consequently, discharge data was not available to observe change in outcomes.

Living Arrangement

The 16 values for housing/living arrangements recorded by service providers in Table 8 were grouped into four distinct categories: institutionalized, independent living, homeless, and unknown/missing data.

- Of the 100 Veterans residing in institutions at admission, only four had a discharge record. Two remained institutionalized, one was living independently, and one became homeless.
- Of the 1,132 Veterans living independently at admission, 180 had a discharge record. One was institutionalized, 178 remained in independent housing, and one became homeless.
- Of the 79 Veterans who were homeless at admission, only 11 had a discharge record. One moved to independent housing and ten remained homeless.

Employment

The 13 values for employment status displayed in Table 9 were grouped into four concise employment-related categories: employed, not in labor force (e.g. disabled, homemaker, and student), unemployed -- looking for work, and unknown/missing data.

- Of the 161 Veterans employed at admission, 52 had a discharge record. Forty-three had retained employment at time of discharge, two left the labor force, three became unemployed (and were looking for work), and data were missing for four.
- Of the 557 Veterans not in the labor force at admission, 86 with had a discharge record. One gained employment, 72 remained out of the labor force, four were looking for work but remained unemployed, and data were missing for nine.
- Of the 492 Veterans unemployed and looking for work at admission, 85 had a discharge record. Six gained employment, six left the labor force, 56 remained unemployed but seeking employment, and data were missing for 17.

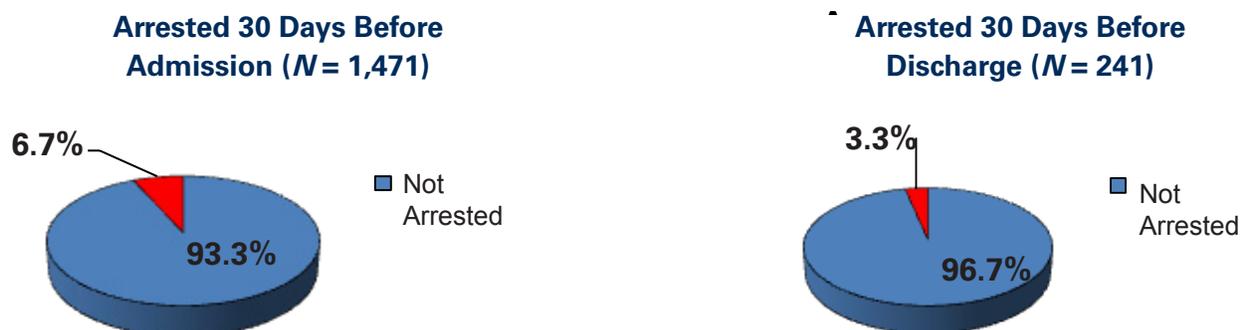
Educational Enrollment

Educational enrollment among veterans is highlighted in Table 10. Participation in seven different levels of education was reduced to three categories for the purpose of showing change from admission to discharge. Those categories are: not enrolled in school or job training program, enrolled in school or job training program, and unknown/missing data.

- The majority of veterans (96.5%) were not enrolled in school or a job training program at the time of admission. Of those 1,323 individuals not enrolled in school/training, only 205 had discharge records. Six were enrolled in school or a job training program, 176 remained out of school, and data were missing for 22.
- Of the 27 veterans enrolled in school or job training programs at time of admission, 15 had a discharge record. Five of those were no longer enrolled at time of discharge, nine remained enrolled, and one was unknown.

Arrest History

Consumers in the sample provided a self-report on the number of arrests 30 days prior to admission and discharge (T1 and T2). Of the 1,371 veterans in our sample, 92 (6.7%) were arrested within the 30 day period prior to admission (See Figure 1 below). Among 1,371 vets, arrest data at discharge were available for only 241 (17.4%), meaning 1,130 Veterans did not have data. There were eight veterans (3.3%) arrested 30 days before discharge (See Figure 2 below).



Change in arrest status at admission (T1) to discharge (T2) can be better understood by looking more in depth at Figure 2 and breaking that data into groups: those who were arrested at T1 and those not arrested at T1. Of the 241 Veterans with T2 data, 27 (11.2%) were arrested at T1, while 214 (88.8%) were not arrested at T1.

- Of the 27 Veterans who were arrested at T1, seven (26%) reported another arrest at T2. Twenty (74.1%) of those were not arrested again at T2.
- Of the 214 Veterans who were not arrested at T1, only one (0.1%) reported an arrest at T2. The other 213 (99.9%) did not report an arrest at T2.

Discussion

The number of military service men and women in need of mental health treatment is expected to increase significantly in the next several years as more veterans return home from Operation OIF/OEF. Comparing characteristics and outcomes of veterans to the civilians receiving treatment can identify differences between the two groups and help better inform services offered to veterans returning home from current conflicts. Planning and education is vital to providing the best possible treatment to this unique population. Becoming familiar with the veteran population and the unique challenges and circumstances they face will facilitate their recovery and reintegration to their community.

One recurring theme from the data was the bimodal distribution of the veterans' status at admission. Frequently, two groups of veterans appeared in the data – those who appear to function at a higher level than civilians in certain areas and those who appeared less functional than the civilian majority. Although living arrangement at admission showed more homeless vets than civilians (5.8% to 3.7%), the data also showed more vets living independently than civilians (54% to 51.7%). The same pattern was observed in employment situation as well, with 9.4% of veterans reporting full time employment compared to just 7.4% of civilians in the sample. However, veterans also reported less educational enrollment, higher unemployment (not in labor force), and higher instances of incarceration and disability. Several of those differences may be explained by the older age of the veterans ($\chi^2 = 47$) compared to civilians ($\chi^2 = 40$). Differences in veterans' characteristics indicate different needs and the importance of properly identifying those needs to provide the appropriate care to each veteran, particularly those with serious and persistent mental illness.

The disproportionately large number of schizophrenia and psychotic disorder diagnoses among veterans (23%) in our sample bears comment. The large percentage is likely associated with the high number of Vietnam veterans who may have suffered from PTSD and/or substance abuse disorders for years. Psychotic symptoms often co-occur in people with PTSD. In addition, the number of substance related problems among the veterans in our sample may be under-reported due to the method of collecting the data. Providers reporting information on consumers of mental health services did not have an integrated data entry template that facilitated inclusion of substance-related disorders as part of the admission record.

Reintegrating veterans back into the community after deployment is a challenge that requires the willingness of many service systems--particularly public mental health—to understand veterans' unique needs. Although this report is just a snapshot of the larger veteran population in Ohio's public mental health system, this analysis can support conversation on how to better serve those who risked their lives in service of our country.

¹Sareen, J., Cox, B.J., Goodwin, R.D., & Asmundson, G.J.G. (2005). Co-occurrence of posttraumatic stress disorder with positive psychotic symptoms in a nationally representative sample. *Journal of Traumatic Stress, 18*, 313-322.

