



# Identifying the Needs of OEF/OIF Veterans with Traumatic Brain Injury (TBI) and Co-Occurring Behavioral Health Issues: A VA, Community Mental Health, & State of Colorado Partnership

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# Background: Systemic Barriers

**The CO Needs and Resource Assessment indicated that a majority of adult respondents (70% to 80%) indicated that they needed mental health services related to their TBI.**

A significant barrier to accessing appropriate mental health services for individuals with TBI is **funding**. Many individuals are not eligible for Medicaid dollars. Theoretically, individuals of low income who are not eligible for Medicaid would be eligible for indigent funds however, these funds are very limited. There are roughly 30,000 individuals being provided mental health services through indigent funds however, based on a recently completed 2009 CO Population in Need Study conducted by DBH there are approximately 71,000 individuals who have serious mental illness in CO.



COLORADO DEPARTMENT OF HEALTH CARE POLICY & FINANCING

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Bill Ritter, Jr., Governor • Joan Himmelfarb, Executive Director

September 17, 2009

Dear Stakeholders:

Attached please find the written criteria accepted by the Department of Health Care Policy and Financing (HCPF) for use by Behavioral Health Organizations (BHOs) and their providers in the assessment and treatment of mental health conditions for individuals with Traumatic Brain Injury (TBI).

This document is the result of six months of collaborative work between the BHOs, TBI advocates and the Department.

These criteria are considered to be a starting point to address long-standing uncertainty about access and treatment protocols in the Medicaid Community Mental Health Services program. Comments, concerns and suggestions about these criteria received from mental health advocates, traumatic brain injury advocates, persons with traumatic brain injury and many other groups and individuals contributed significantly to the development of these criteria.

These guidelines have been approved by the Department and are included by reference in the FY10 BHO contracts.

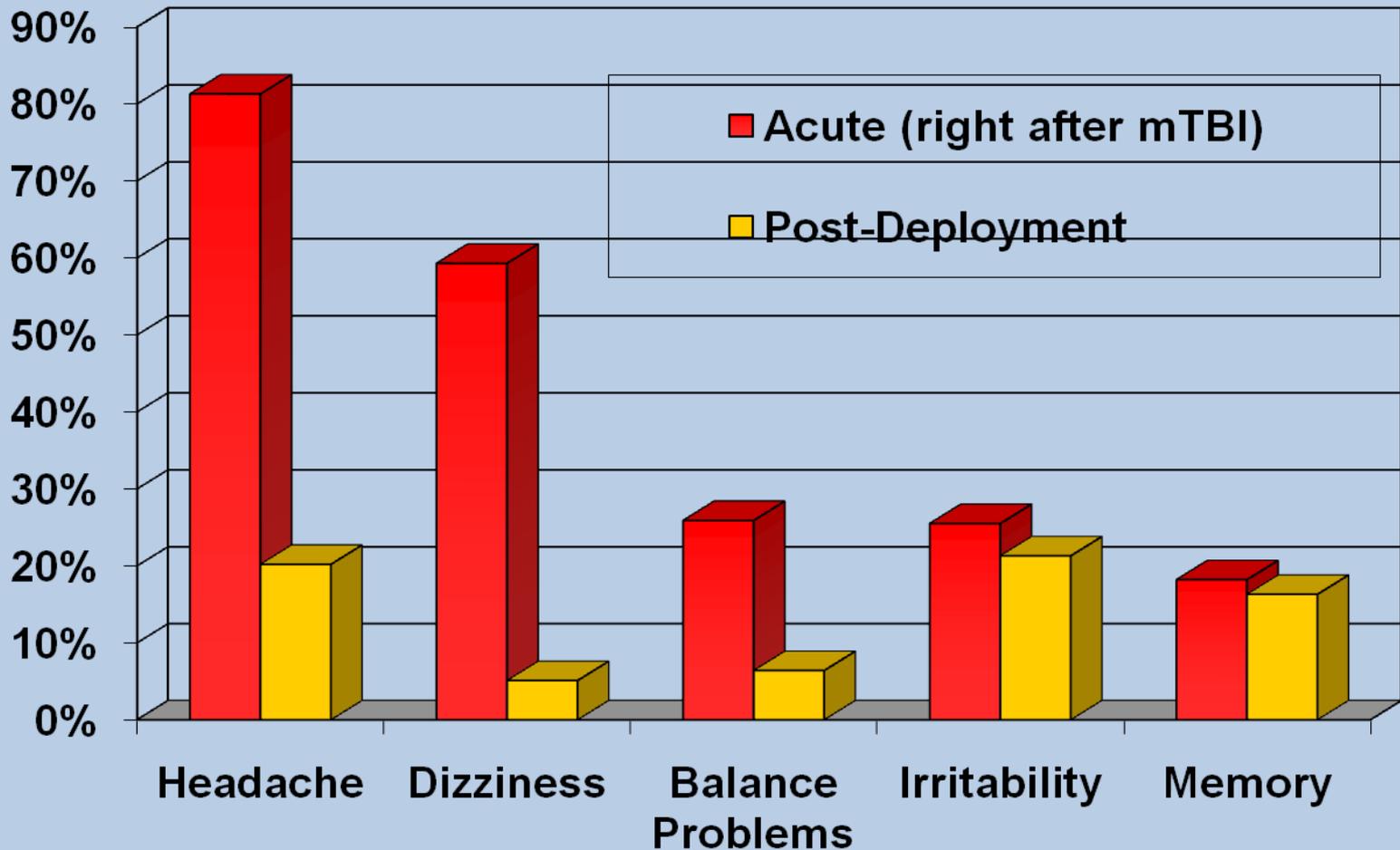
*The Behavioral Health Organizations have requested that staff, consumers or advocates who encounter any difficulties accessing the mental health system in accordance with these guidelines contact the Executive Director of the appropriate BHO, as follows:*

- Denver, Access Behavioral Care: Robert Bremer (720) 744-5640
- Adams and Arapahoe Counties, Behavioral Healthcare, Inc: Julie Holtz (720) 490-4399
- Boulder, Broomfield, Clear Creek, Gilpin and Jefferson County, Foothills Behavioral Health Partners: Donald Rohrer (303) 432-8951
- Fort Collins, Greeley and northeast Colorado: Northeast Behavioral Health Partnership, Karen Thompson: (970) 347-2372
- Colorado Springs, Pueblo, southern Colorado and western slope: Colorado Health Networks: Arnold Salazar (719) 587-0899

*The Department looks forward to receiving stakeholder feedback about the efficacy of these guidelines and working with stakeholders to continually improve service delivery for this vulnerable population.*

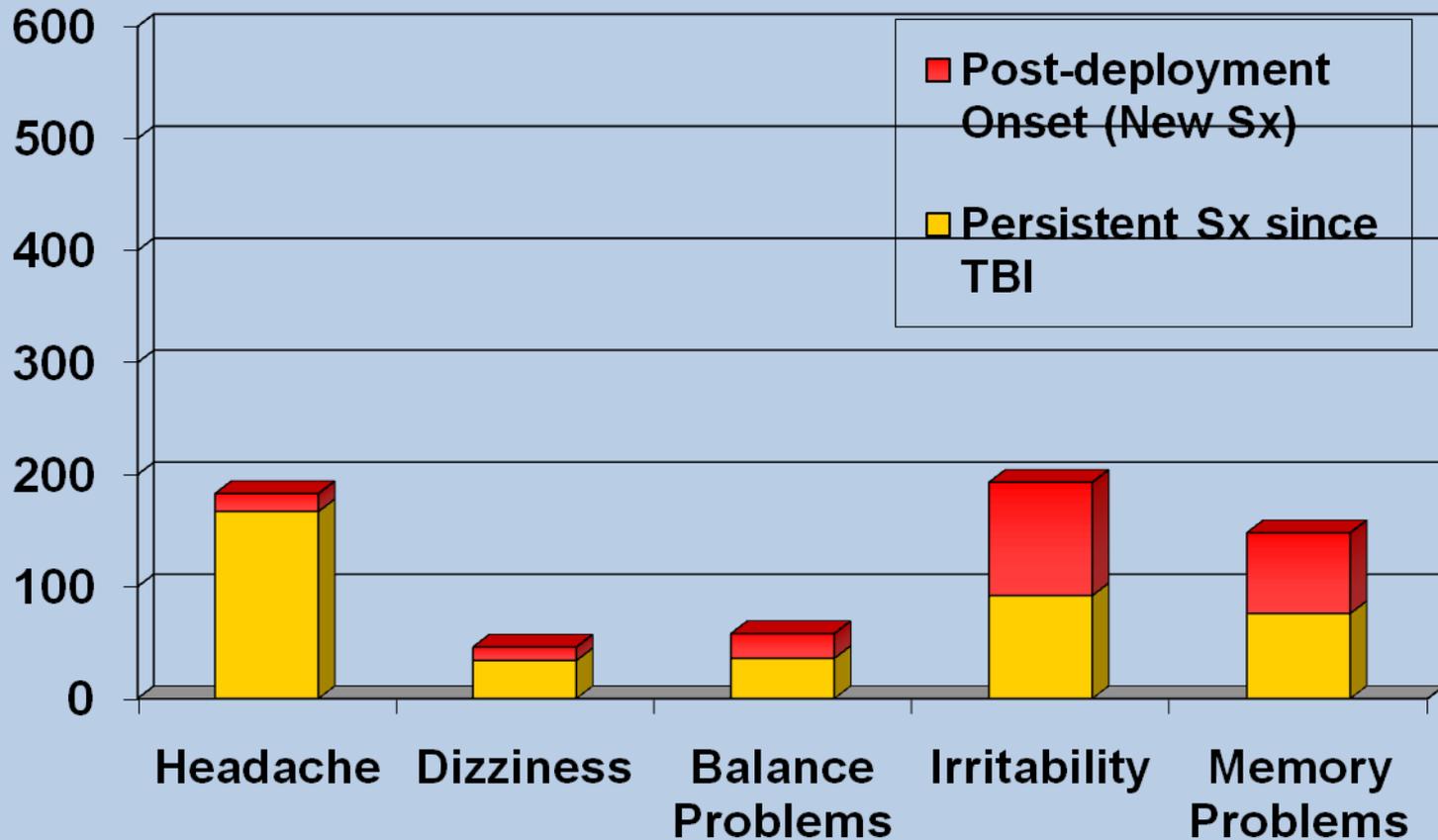
**During 2007 and 2008 - CO Department of Health Care Policy and Finance that many Behavioral Health Organizations and Community Mental Health Centers were not appropriately interpreting their Medicaid contract obligations in regard to treating individuals with TBI.**

# Ft. Carson: Post-Deployment Data (n = 907)



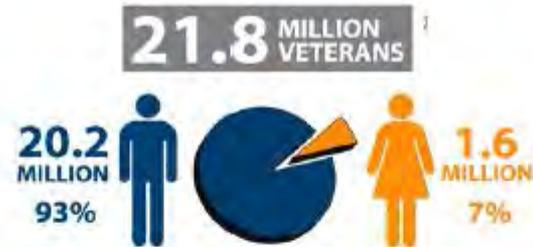
Terrio H, Brenner LA, Ivins B, Cho JM, Helmick K, Schwab K, et al. Traumatic brain injury screening: Preliminary findings regarding prevalence and sequelae in a US Army Brigade Combat Team. *Journal of Head Trauma Rehabilitation*. 2009; 24(1):14-23.

# Currently Symptomatic: Onset of Symptoms (n = 844)

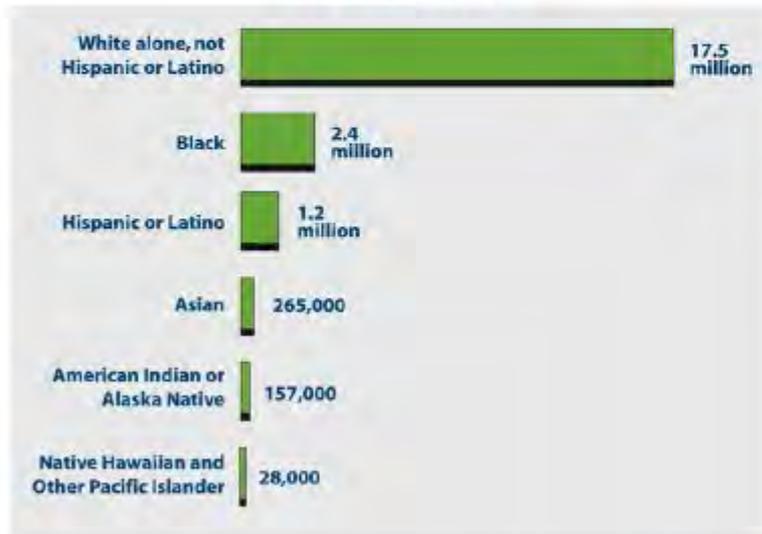


Terrio H, Brenner LA, Ivins B, Cho JM, Helmick K, Schwab K, et al. Traumatic brain injury screening: Preliminary findings regarding prevalence and sequelae in a US Army Brigade Combat Team. *Journal of Head Trauma Rehabilitation*. 2009; 24(1):14-23.

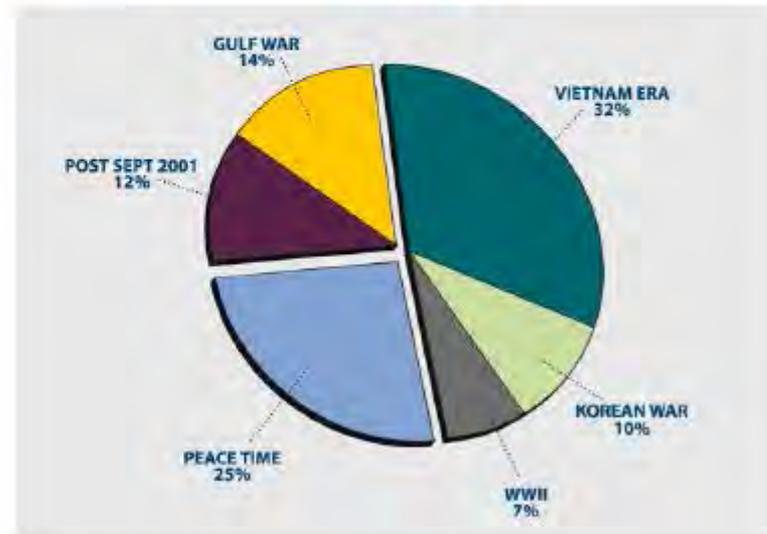
# Veterans today



Race & Ethnicity<sup>1</sup>



Service Era<sup>2</sup>



1. U.S. Census Bureau (2010). *American Community Survey*. Retrieved from <http://www.census.gov/how/infographics/veterans.html>.

2. U.S. Department of Veterans Affairs (2012). *VetPop 2007, Table 2L: Veterans by State, Period, Age Group, Gender, 2000-2036 as of 9/30/11*; and Table 10L: *Veterans 2000-2036 by Gulf War Service, Age, Gender Period as of 9/30/11*.

# OEF and OIF Veterans Who Have Left Active Duty

- **1,168,953** OEF and OIF Veterans have left active duty and become eligible for VA health care since FY 2002
  - **53% (619,318)** Former Active Duty troops
  - **47% (549,635)** Reserve and National Guard

# VA Health Care Utilization from FY 2002 through 2010 (2<sup>nd</sup> Qtr.) among OEF and OIF Veterans

- **Among all 1,168,953 separated OEF/OIF Veterans**
  - **48% (565,024)** of total separated OEF/OIF Veterans have obtained VA health care since FY 2002 (cumulative total)
    - **94% (533,902)** of **565,024** evaluated OEF/OIF patients have been seen as outpatients only by VA and not hospitalized
    - **6% (31,122)** of **565,024** evaluated OEF/OIF patients have been hospitalized at least once in a VA health care facility

# Frequency of Possible Diagnoses among OEF and OIF Veterans

Diagnosis (Broad ICD-9 Categories)	Frequency	Percent
Infectious and Parasitic Diseases (001-139)	78,869	14.0
Malignant Neoplasms (140-209)	6,816	1.2
Benign Neoplasms (210-239)	30,053	5.3
Diseases of Endocrine/Nutritional/ Metabolic Systems (240-279)	157,823	27.9
Diseases of Blood and Blood Forming Organs (280-289)	16,917	3.0
<b>Mental Disorders (290-319)</b>	<b>277,112</b>	<b>49.0</b>
<b>Diseases of Nervous System/ Sense Organs (320-389)</b>	<b>231,524</b>	<b>41.0</b>
Diseases of Circulatory System (390-459)	108,940	19.3
Disease of Respiratory System (460-519)	135,699	24.0
Disease of Digestive System (520-579)	195,631	34.6
Diseases of Genitourinary System (580-629)	73,772	13.1
Diseases of Skin (680-709)	107,616	19.1
Diseases of Musculoskeletal System/Connective System (710-739)	300,752	53.2
Symptoms, Signs and Ill Defined Conditions (780-799)	267,745	47.4
Injury/Poisonings (800-999)	149,000	26.4

\*These are cumulative data since FY 2002, with data on hospitalizations and outpatient visits as of March 31, 2010; Veterans can have multiple diagnoses with each health care encounter. A Veteran is counted only once in any single diagnostic category but can be counted in multiple categories, so the above numbers add up to greater than 565,024; percentages add up to greater than 100 for the same reason.

# Frequency of Possible Mental Disorders among OEF/OIF Veterans since 2002<sup>1</sup>

Disease Category (ICD 290-319 code)	Total Number of OEF/OIF Veterans <sup>2</sup>
PTSD (ICD-9CM 309.81) <sup>3</sup>	147,703
Depressive Disorders (311)	105,882
Neurotic Disorders (300)	87,622
Affective Psychoses (296)	62,548
Nondependent Abuse of Drugs (ICD 305) <sup>4</sup>	50,273
Alcohol Dependence Syndrome (303)	28,801
Specific Nonpsychotic Mental Disorder due to Organic Brain Damage (310)	18,404
Special Symptoms, Not Elsewhere Classified (307)	17,161
Sexual Deviations and Disorders (302)	14,611
Persistent Mental Disorders due to Conditions Classified Elsewhere (294)	14,250

<sup>1</sup> These are cumulative data since FY 2002. ICD diagnoses used in these analyses are obtained from computerized administrative data. Although diagnoses are made by trained health care providers, up to one-third of coded diagnoses may not be confirmed when initially coded because the diagnosis is provisional, pending further evaluation.

<sup>2</sup> A total of 277,112 unique patients received a diagnosis of a possible mental disorder. A Veteran may have more than one mental disorder diagnosis and each diagnosis is entered separately in this table; therefore, the total number above will be higher than 277,112.

<sup>3</sup> This row of data does not include information on PTSD from VA's Vet Centers or data from Veterans not enrolled for VA health care. Also, this row does not include Veterans who did not receive a diagnosis of PTSD (ICD 309.81) but had a diagnosis of adjustment reaction (ICD-9 309).

<sup>4</sup> This category currently excludes 75,947 Veterans who have a diagnosis of tobacco use disorder (ICD-9CM 305.1) and no other ICD-9CM 305 diagnoses.

## Prevalence and Screening of Traumatic Brain Injury Among Veterans Seeking Mental Health Services

Lisa A. Brenner, PhD; Beeta Y. Homajfar, PhD; Jennifer H. Olson-Madden, PhD;  
Herbert T. Nagamoto, MD; Joe Huggins, MSW, MSCS; Alexandra L. Schneider, BA;  
Jeri E. Forster, PhD; Bridget Matarazzo, PsyD; John D. Corrigan, PhD

**Objectives:** To assess the prevalence of traumatic brain injury (TBI) among Veterans seeking mental health services using a 4-item tool, the Traumatic Brain Injury-4 (TBI-4), and to establish the classification accuracy of the TBI-4 using the Ohio State University TBI-Identification Method as the criterion standard. **Study Design:** Archival and observational data collected from individuals seeking care at a Mountain State VA Medical Center. **Participants:** The sample for the archival study was 1810. Three hundred sixteen Veterans completed observational study measures. **Main Measures:** For the archival study, TBI-4 and demographic data extracted from electronic medical records. For the observational study, the Ohio State University TBI-Identification Method and a demographic questionnaire were used. TBI-4 data were also obtained from electronic medical records. **Results:** The prevalence of probable TBI among those seeking VA MH treatment was 45%. Sensitivity and specificity of the TBI-4 were 0.74 and 0.56, respectively. Veterans with all levels of TBI severity sought care within this VA mental health setting. **Conclusions:** The prevalence of TBI in this VA mental health treatment population was higher than expected. Additional research is required to assess the clinical utility of screening for TBI among this population of Veterans. **Key words:** mental health, screening, sensitivity, specificity, traumatic brain injury, Veterans

TRAUMATIC BRAIN INJURY (TBI) has long been associated with psychiatric sequelae including depression, psychosis, and other conditions often addressed within mental health (MH) settings.<sup>1-4</sup> How-

ever, limited research has been conducted to clarify the rate of those with a probable TBI history seeking MH services. There are no published studies of prevalence of TBI in those seeking care in VA outpatient MH clinics. This is, in part, related to the fact that historically the need for screening and diagnosis of TBI among those seeking services in MH settings has been underappreciated. As discussed by Steiner,<sup>5</sup> screening tests are broadly given to determine which individuals within a given cohort likely have a condition. If an individual screens positive on a measure, a more detailed diagnostic evaluation is necessary to "rule in or out" a condition.<sup>6</sup>

Walker et al<sup>6</sup> suggested that further research aimed at modifying clinical practice to include TBI screening is indicated. Clients receiving substance abuse treatment were asked to report the number of lifetime "head injuries" that resulted in "being knocked out or kept in a hospital at least 1 night."<sup>6(p26)</sup> Of the 7784 individuals screened, approximately 1 in 5 endorsed a history of 1 probable TBI with loss of consciousness (LOC), 11.9% reported 2 or more, and the total number of those reporting any history of likely TBI was 31.7%. Those having a greater number of probable TBIs with LOC were more likely to report MH problems, and the prevalence of such problems increased as the number of likely TBIs

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Revisions expressed in this article are those of the authors and do not necessarily represent the official policy or position of the Department of Veterans Affairs or the US Government.

The authors declare no conflicts of interest.

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The prevalence of probable TBI among those seeking VA MH treatment was 45% (screened – n = 1,810).

238 of the 316 Veterans who completed the OSU TBI-ID<sup>11</sup> reported a positive history of TBI.

The mean number of lifetime injuries was 2.5.

Data also supported the assertion that individuals with all levels of injury severity (i.e., mild, moderate, and severe) had sought care within this VA mental health setting.

About 30% with history of moderate to severe TBI.



## Challenges Associated With Screening for Traumatic Brain Injury Among US Veterans Seeking Homeless Services

Leah M. Russell, MA, Maria D. Devore, MS, Sean M. Barnes, PhD, Jeri E. Forster, PhD, Trisha A. Hostetter, MPH, Ann Elizabeth Montgomery, PhD, Roger Casey, PhD, LCSW, Vincent Kane, MSS, and Lisa A. Brenner, PhD

We identified the prevalence of traumatic brain injury (TBI) among homeless veterans and assessed the TBI-4, a screening tool created to identify TBI history. Between May 2010 and October 2011, 800 US veterans from 2 hospitals, one eastern (n=122) and one western (n=678) completed some or all measures. Findings suggested that 47% of veterans seeking homeless services had a probable history of TBI (data for prevalence obtained only at the western hospital). However, psychometric results from the screening measure suggested that this may be an underestimate and supported comprehensive assessment of TBI in this population. (*Am J Public Health*. 2013;103:S211-S213. doi:10.2105/AJPH.2013.301485)

Findings suggest that 47% of those sampled (n=678) had a history of TBI

vs.

9% TBI prevalence reported in the general population\*

\*Thurman DJ, Alverson C, Dunn KA, Guerrero J, Sniezek JE. Traumatic brain injury in the United States: A public health perspective. *J Head Trauma Rehabil*. Dec 1999;14(6):602-615.

# Suicide and Traumatic Brain Injury Among Individuals Seeking Veterans Health Administration Services

Lisa A. Brewster, PhD, ABPP, Rosalinda V. Ignacio, MS, Frederic C. Blow, PhD

**Objective:** To examine associations between history of traumatic brain injury (TBI) diagnosis and death by suicide among individuals receiving care within the Veterans Health Administration (VHA). **Method:** Individuals who received care between fiscal years 2001 to 2006 were included in analysis. Cox proportional hazards survival models for time to suicide, with time-dependent covariates, were utilized. Covariance sandwich estimators were used to adjust for the clustered nature of the data, with patients nested within VHA facilities. Analysis included all patients with a history of TBI ( $n = 49,626$ ) plus a 5% random sample of patients without TBI ( $n = 389,053$ ). Of those with a history of TBI, 103 died by suicide. Models were adjusted for demographic and psychiatric covariates. **Results:** Veterans with a history of TBI were 1.26 (95% confidence interval [CI], 1.24–1.92) times more likely to die by suicide than those without a history of TBI. Analyses by TBI severity were also conducted, and they suggested that in comparison to those without an injury history, those with (1) concussional fractures were 1.98 times more likely (95% CI, 1.39–2.80) to die by suicide and (2) cerebral contusion/traumatic intracranial hemorrhage were 1.54 times more likely (95% CI, 1.09–1.64) to die by suicide. This increased risk was not explained by the presence of psychiatric disorders or demographic factors. **Conclusions:** Among VHA users, those with a diagnosis of TBI were at greater risk for suicide than those without this diagnosis. Further research is indicated to identify evidence-based means of assessment and treatment for those with TBI and suicidal behavior. **Keywords:** suicide, traumatic brain injury, veterans

AMONG MEMBERS of the general population, individuals with a history of traumatic brain injury (TBI) are at increased risk for suicidal behavior as compared with those without an injury history.<sup>1</sup> Silver and colleagues<sup>2</sup> found that those with a TBI reported a higher frequency of suicide attempts, 8.3% versus 1.9%

in the general population. In a seminal study, Teasdale and Engberg<sup>3</sup> reviewed hospital admission records and found that the incidence of suicide among those with concussion, cranial fracture, and cerebral contusion/intracranial hemorrhage were increased relative to the population on whole.

These findings are particularly relevant in light of the high rate of TBI being sustained by military personnel serving in Iraq and Afghanistan,<sup>1,4</sup> and concerns regarding suicidal behavior among members of the armed forces and veterans.<sup>5,6</sup> Estimates of military personnel serving in current conflicts who have either screened positive or been diagnosed with clinician-confirmed mild TBI range from 10% to 23%.<sup>1,4,7,8</sup> In addition, recent studies suggest a high rate of TBI among individuals seeking Veterans Health Administration (VHA) mental health and substance abuse treatment services.<sup>1,9</sup>

According to a recently published report by the Department of Defense Task Force on the Prevention of Suicide by Members of the Armed Forces,<sup>5</sup> between 2005 and 2009, more than 1100 individuals in the military died by suicide. These numbers reflect a sharp increase in the rate of suicide among marines and soldiers, with the rate of suicide among army personnel more than doubling.<sup>5</sup> Moreover, in comparison with members of the general population, suicide rates among

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*Reprints and requests regarding this article:* Frederic C. Blow, PhD, at (303) 426-1000, ext 1000, or (303) 426-1000, ext 1000, or (303) 426-1000, ext 1000. Digital World Congress on Brain Injury, An adjunct of the 11th International Congress on Brain Injury, The National Academy of Sciences, 1100 North 17th Street, Suite 1000, Silver Spring, MD 20910. This address is approximately 400 miles from the general location of the conference. This address is approximately 400 miles from the general location of the conference. This address is approximately 400 miles from the general location of the conference.

*Dr Brewster and Blow and Ms Ignacio report no competing interests. The authors thank Drs. Joe Katz, Jon Kemp, and John M. Caviglia for their assistance in planning and editing this presentation for the manuscript.*

*This project is supported by the VHA VA Medical (Lisa Brewster), and the VA Office of Mental Health Services.*

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Individuals who received care between FY 01 and 06

Analyses included all patients with a history of TBI (n = 49,626) plus a 5% random sample of patients without TBI (n = 389,053)

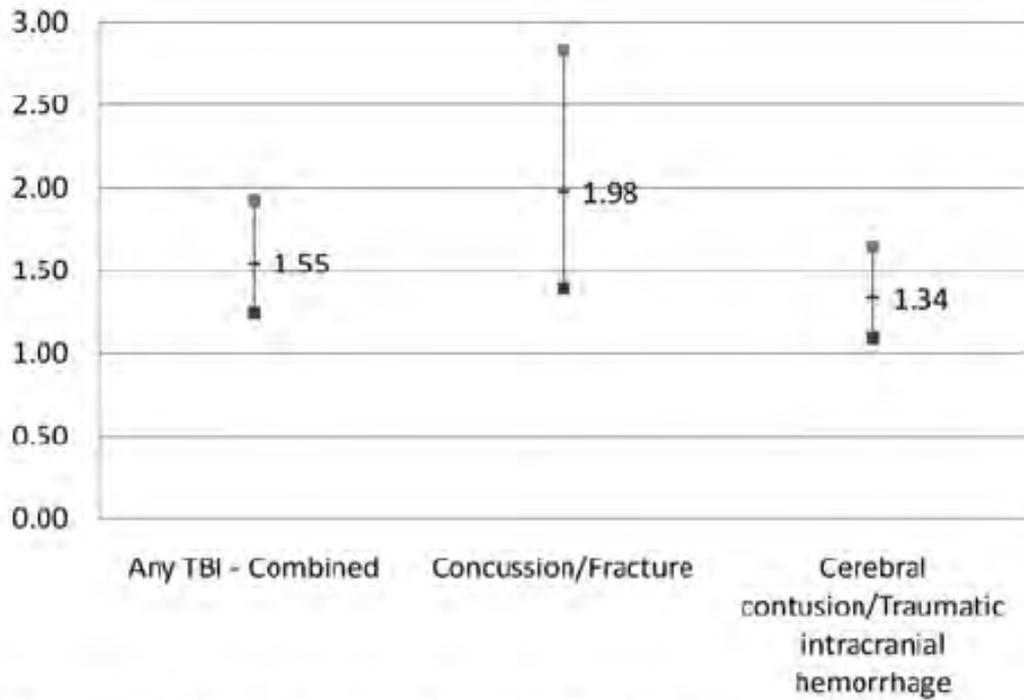
Suicide - National Death Index (NDI) compiles death record data for all US residents from state vital statistics offices

TBI diagnoses of interest were similar to those used by Teasdale and Engberg

# Suicide by TBI Severity – VHA Users FY 01-06

- 12,159 with concussion or cranial fracture, of which 33 died by suicide
- 39,545 with cerebral contusion/traumatic intracranial hemorrhage of which 78 died by suicide
- Of those with a history of TBI, 105 died by suicide

Challenges associated with this type of research  
and need for collaboration  
(~8 million records reviewed)



**Figure 2.** Hazard ratios for suicide by traumatic brain injury severity adjusted for sex, age, and psychiatric conditions.

*ICD-9 codes:*  
 1) concussion (850), cranial fracture—fracture of vault of skull (800), fracture of base of skull (801), and other and unqualified skull fractures (803)  
 (2) cerebral laceration and contusion (851); subarachnoid, subdural, and extradural hemorrhage after injury (852); other and unspecified intracranial hemorrhage after injury (853); and intracranial injury of other and unspecified nature (854).



Cox proportional hazards survival models for time to suicide, with time-dependent covariates, were utilized. Covariance sandwich estimators were used to adjust for the clustered nature of the data, with patients nested within VHA facilities.

Diagnosis	All		Those who died by suicide		Those who did not die by suicide		P
	N	Col%	N	Col%	N	Col%	
VHA users with any TBI (combined)							
All	49 626	100	105	100	49 521	100	
Substance abuse	8368	16.86	32	30.48	8336	16.83	.0002
Bipolar I/II	2265	4.56	10	9.52	2255	4.55	.0292
MDD	4,464	9	24	22.86	4440	8.97	<.0001
Other depression, no MDD	7616	15.35	23	21.9	7593	15.33	.062
Other anxiety	4326	8.72	16	15.24	4310	8.7	.0177
PTSD	4880	9.83	23	21.9	4857	9.81	<.0001
Schizophrenia/schizoaffective disorder	2287	4.61	6	5.71	2281	4.61	.4875
VHA users with concussion/fracture ←							
All	12 159	100	33	100	12 126	100	
Substance abuse	2087	17.16	9	27.27	2078	17.14	.123
Bipolar I/II	588	4.84	2	6.06	586	4.83	.6731
MDD	1198	9.85	10	30.3	1188	9.8	.00092 ←
Other depression, no MDD	1831	15.06	7	21.21	1824	15.04	.3271
Other anxiety	1148	9.44	7	21.21	1141	9.41	.0316 ←
PTSD	1376	11.32	7	21.21	1369	11.29	.0912
Schizophrenia/schizoaffective disorder	519	4.27	1	3.03	518	4.27	.9999
VHA users with cerebral contusion/traumatic intracranial hemorrhage ←							
All	39 545	100	78	100	39 467	100	
Substance abuse	6728	17.01	25	32.05	6703	16.98	.0004 ←
Bipolar I/II	1802	4.56	8	10.26	1794	4.55	.0256 ←
MDD	3490	8.83	17	21.79	3473	8.8	<.0001 ←
Other depression, no MDD	6142	15.53	17	21.79	6125	15.52	.1263
Other anxiety	3377	8.54	11	14.1	3366	8.53	.0785
PTSD	3757	9.5	17	21.79	3740	9.48	.0002 ←
Schizophrenia/schizoaffective disorder	1869	4.73	5	6.41	1864	4.72	.4199



ORIGINAL ARTICLE

### Validating the Traumatic Brain Injury-4 Screening Measure for Veterans Seeking Mental Health Treatment With Psychiatric Inpatient and Outpatient Service Utilization Data



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Abstract

**Objective:** To determine whether a positive screen on the Traumatic Brain Injury-4 (TBI-4) can be used to identify veterans who use more inpatient and outpatient mental health services.

**Design:** Validation cohort.

**Setting:** Medical center.

**Participants:** Individuals seeking Veterans Health Administration mental health services (N=1493).

**Interventions:** Not applicable.

**Main Outcome Measures:** One year of inpatient and outpatient mental health utilization data after the TBI-4 screen date.

**Results:** In the year postmental health intake, those who answered positively to any of the 4 TBI-4 screening questions (criterion 1) or question 2 (criterion 2; ever having been knocked out) had significantly more psychiatric hospitalizations than those who met neither criterion. Those who were positive by criterion 2 also had significantly fewer outpatient mental health contacts.

**Conclusions:** Veterans screening positive for history of traumatic brain injury on the TBI-4 had more hospital stays in the year postmental health intake. Those who reported having been knocked out also had fewer outpatient mental health visits. These findings may suggest an overall relation in this population between greater needs for mental health care and likelihood of prior injury. For those with a history of loss of consciousness, the reduced use of outpatient care may reflect greater problems engaging in treatment or with preventive aspects of the health care system during non-crisis periods. Using a screener (eg, the TBI-4) could facilitate identification of veterans who might benefit from targeted and intensive outpatient interventions to avoid frequent inpatient psychiatric hospitalization.

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The views expressed in this article are those of the authors and do not necessarily reflect the official policy or position of the Department of Veterans Affairs or the U.S. Government.

0003-9993/14/95-925-9 - see front matter © 2014 by the American Congress of Rehabilitation Medicine  
<http://dx.doi.org/10.1016/j.apmr.2014.01.008>

Veterans screening positive for history of TBI on the TBI-4 had more hospital stays in the year post-mental health intake.

Those who reported having been “knocked out”, also had fewer outpatient mental health visits.

These findings may suggest an overall relationship in this population between greater needs for mental health care and likelihood of prior injury.

For those with a history of loss of consciousness, the reduced use of outpatient care may reflect greater problems engaging in treatment, or the treatment system, when not in crisis.





# Specific Aims

- Develop **assessment and treatment guidelines** to improve non-VA community mental health care for OEF/OIF Veterans with TBI and co-occurring behavioral health issues within the state of Colorado.
- Develop a **training and accompanying toolkit**, which may be used for annual educational training of mental health providers.

# Consensus Conference

## Identification and Treatment of TBI and Co-occurring Psychiatric Symptoms Among OEF/OIF/OND Veterans Seeking Mental Health Services Within the State of Colorado: Establishing Consensus for Best Practices

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Bridget B. Matarazzo · Gina M. Signoracci ·  
Expert Consensus Collaborators

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**Abstract** This paper highlights the results of a consensus meeting regarding best practices for the assessment and treatment of co-occurring traumatic brain injury (TBI) and mental health (MH) problems among Operation Enduring Freedom/Operation Iraqi Freedom/Operation New Dawn Veterans seeking care in non-Veterans Affairs Colorado community MH settings. Twenty individuals with expertise in TBI screening, assessment, and intervention, as well as the state MH system, convened to establish and review questions and assumptions regarding care for this Veteran population. Unanimous consensus regarding best practices was achieved. Recommendations for improving care for Veterans seeking care in community MH settings are provided.

Expert Consensus Collaborators and Conference Moderating Assistants are given in "Appendix".

The views in this paper are those of the authors and do not necessarily represent the official policy or position of the Department of Veterans Affairs or the United States Government. This material is the result of work supported with resources and the use of facilities at the Eastern Colorado Health Care System VA medical center.

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### Background

According to the Centers for Disease Control (CDC 2011) 1.7 million Americans sustain a TBI annually. Regarding TBI within the state of Colorado, findings from the Colorado Traumatic Brain Injury Surveillance System (B. Gabella, personal communication, 2009) suggest that on average there are 950 deaths, 5,000 hospitalizations and 23,000 emergency department (ED) visits annually. Approximately 100,000 Coloradans live with long-term disabilities as a result of TBI. A wide range of cognitive, physical and psychiatric impairments (Hibbard et al. 1998) are associated with TBI. In addition, military personnel serving in Iraq and Afghanistan are sustaining injuries while deployed (Terilo et al. 2009). Upon return to the United States, military personnel are also reporting psychiatric symptoms including those associated with post traumatic stress disorder (PTSD) and depression (Tanielian and Jaycox 2008). Returned Veterans are seeking medical and/or mental health care both within and outside of the Veterans Health Administration (VHA). Because of this, community-based, non-VHA providers require the knowledge and skills to meet the specialized needs of this cohort. As one means to help meet this need, the Department of Veterans Affairs has developed a new online Community Provider Toolkit aimed at delivering support, therapeutic tools, and resources to community providers treating Veterans the mental health concerns (available at [www.mentalhealth.va.gov/communityproviders](http://www.mentalhealth.va.gov/communityproviders)).

With regard to the community mental health care system in the State of Colorado, there are five Behavioral Health Organizations (BHOs) consisting of 17 Community Mental



# Training



Slides decks from today will  
be posted on:  
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VA » Health Care » MIRECC/CoE » VISN 19 MIRECC » Toolkit for Providers of Clients with Co-occurring TBI and Mental Health Symptoms

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## Toolkit for Providers of Clients with Co-occurring TBI and Mental Health Symptoms



Site Navigation:

<a href="#">Home</a>	<a href="#">Military &amp; Veteran Culture</a>	<a href="#">Traumatic Brain Injury</a>	<a href="#">Co-Occurring Mental Health Conditions</a>	<a href="#">Resources</a>
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