

## Evidence Profile

Health status	Authors & Year	Design	Country	Population <sup>1</sup> (source)	Primary outcomes (measures & diagnostic criteria)	Secondary outcome(s) (mental health-related)	Sampling methodology	Number of participants assessed for substance use disorders <sup>2</sup>	Age <sup>3</sup> & gender (%)
<b>Otherwise healthy</b>									
Otherwise healthy	Golub, Vazan, Bennett & Liberty, 2013	Cross-sectional secondary data source; self-report	US	Veterans* interviewed as part of a national drug and alcohol use survey between 2004 - 2010  Age was restricted to 21-34 year olds to capture the OEF/OIF population	- Substance use disorder (DSM criteria) - Alcohol use disorder (DSM criteria) - Drug use disorder (DSM criteria) - Marijuana use disorder (DSM criteria) - Pain killer use disorder (DSM criteria) - Psychotherapeutic use disorder (DSM criteria) - Past month alcohol misuse (non-validated measures) - Past month use of marijuana; cocaine; hallucinogens; pain killers (non-validated measures)	Depression, anxiety	Secondary analysis of nationwide US survey of drug and alcohol use employing multilevel stratified hierarchical sampling procedure with a response rate of 74-77%	N= 3,826	28.7  F= 18% M= 82%

<sup>1</sup> Theatre of conflict is specified where reported- no information means theatre was not reported

# = Mixed active duty and ex-serving; ^ = veteran status clearly defined (i.e., information was provided about their deployments; theatre; status; \* = veteran status not clearly defined (i.e., authors simply used the word 'veteran' and provided no further information)

<sup>2</sup> Substance use disorders, unless specified, refers to both abuse of and dependence on alcohol and other drugs

<sup>3</sup> Mean age and SD is given when provided, alternatively age range is provided

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<p><b>Substance use disorder rates (past-year):</b>            Substance use disorder= 17.7%; Alcohol use disorder= 15.3%; Any illicit drug use disorder= 4.9%; Marijuana use disorder= 2.8%; Any illicit drug (except marijuana) use disorder= 2.4%; Pain killer use disorder= 1.1%; Psychotherapeutic use disorder= 1.6%</p> <p><b>Past month use:</b>            Binge drinking= 43.8%; Heavy drinking= 14.2%; Marijuana= 11%; Cocaine= 1.6%; Hallucinogens= 0.9%; Pain killers= 3.5%</p>									
Otherwise healthy	Tan, Westermeyer, Thompson, Thuras & Canive, 2008	Cross-sectional, primary data source; clinical interview	US	American Indian veterans* from north central US states	<ul style="list-style-type: none"> <li>- Substance use disorders (current; lifetime) (Quick-Diagnostic Interview Schedule DSM-III-R)</li> <li>- Alcohol use disorder (Quick-Diagnostic Interview Schedule DSM-III-R)</li> <li>- Cannabis use disorder (Quick-Diagnostic Interview Schedule DSM-III-R)</li> <li>- Cocaine use disorder (Quick-Diagnostic Interview Schedule DSM-III-R)</li> <li>- Other stimulant use disorder (Quick-Diagnostic Interview Schedule DSM-III-R)</li> <li>- Hallucinogen use disorder (Quick-Diagnostic Interview Schedule DSM-III-R)</li> <li>- Sedative use disorder (Quick-Diagnostic Interview Schedule DSM-III-R)</li> <li>- Opioid use disorder (Quick-Diagnostic Interview Schedule DSM-III-R)</li> <li>- Inhalant use disorder</li> </ul>	Anxiety, depression, pathological gambling	Stratified to include females and rural veterans with an estimated 93% completion rate	N= 558	47.4  F= 14% M= 86%

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					(Quick-Diagnostic Interview Schedule DSM-III-R)				
<b>Substance use disorder rates:</b> Remitted substance use disorder= 15%; Active substance use disorder= 21% <b>Of those with an active substance use disorder:</b> Alcohol= 89%; Cannabis= 28%; Cocaine= 18%; Other stimulants= 11%; Hallucinogens= 12%; Sedatives= 5%; Opioids= 6%; Inhalants= 5%									
Otherwise healthy	Westermeyer, Canive, Garrad, Thuras & Thompson, 2005	Cross-sectional, primary data source; clinical interview	US	American Indian and Hispanic veterans from the Southwest and North central US states	- Substance use disorders (DSM-IV-TR; MAST/AD) - Alcohol use disorders (DSM-IV-TR; MAST/AD)	Depression, anxiety, PTSD, anti-social personality disorder, panic disorder, pathological gambling	Targeted sampling, identification and invitation with an estimated 93% completion rate	N= 1,228	<b>Gamblers</b> 48.5(10.3) <b>Non-gamblers:</b> 47.2(14.2)  F= 10% M= 90%
<b>Lifetime rates:</b> <b>Substance use disorders:</b> Gamblers= 58%; Non-gamblers= 32.9% <b>Alcohol use disorders:</b> American Indian= 35.2%; Hispanic American= 22.9%									
<b>Accessing VA services</b>									
Seeking mental health services from VA	Edens & Rosenheck, 2012	Cross-sectional secondary data source; method of assessment not specified	US	All veterans* who used VA mental health specialty services in FY 2009 7.7% were OEF/OIF	- Alcohol use disorder - Drug use disorder (ICD-9-CM)	Anxiety, depression, dementia, PTSD, schizophrenia	Reviewed administrative data	N = 1,102,846	<40 - >85  F= 8.5% M= 91.5%

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<b>Overall rates:</b> Alcohol use disorders= 18.3%; Drug use disorder = 14.8% <b>Pathological gamblers:</b> Alcohol use disorders= 44.5%; Drug use disorder = 30.0%									
Seeking care from the VA	Frueh et al., 2007	Cross-sectional, primary data source; clinical interview	US	Veterans* who visited VA medical centres in south eastern US states during the FY 1999  19.1%of the 18-44 year olds; 48.4% of 45-64 year olds had combat exposure	- Substance use disorders (MINI)	Anxiety, depression, PTSD	N= 1,198 randomly identified and approached  74%completion rate	N= 745	61.2(11.8)  F= 7% M= 93%
<b>Substance use disorder rates by age:</b> 18-44= 4.3%; 45-64= 5.3%									
Seeking care from the VA	Hawkins, Lapham, Kivlahan & Bradley, 2010	Cross-sectional secondary data source; self-report and not specified	US	OEF/OIF^ and other theatre veterans enrolled in the VA health care system and screened between 2003 – 2004	- Substance use disorders (ICD-9-CM) - Alcohol use disorders (ICD-9-CM) - Cocaine use disorders (ICD-9-CM) - Cannabis use disorders (ICD-9-CM) - Alcohol misuse	Depression, anxiety, PTSD, schizophrenia	Data was obtained from the VA office of Quality and Performance. Randomly selected medical records were	N= 12,092	<b>OEF/OIF:</b> M= 34.7 F= 32.9  <b>Non-OEF/OIF:</b> M= 47.5 F= 43.5

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					(AUDIT-C)		reviewed		F= 17% M= 83%
<p><b>Overall rates:</b>  Substance use disorder= 18.9%; Alcohol use disorder= 17.5%; Cocaine use disorder= 3.3%; Cannabis use disorder= 3.9%</p> <p><b>OEF/OIF females:</b>  Substance use disorder= 9.5%; Alcohol use disorders= 8.7%; Cocaine use disorder= 0.8%; Cannabis use disorder= 3.9%</p> <p><b>Non OEF/OIF males:</b>  Substance use disorder= 26.8%; Alcohol use disorders= 21.8%; Cocaine use disorder= 10.0%; Cannabis use disorder= 5.8%</p> <p><b>Non OEF/OIF females:</b>  Substance use disorder= 10.5%; Alcohol use disorders= 7.9%; Cocaine use disorder= 3.6%; Cannabis use disorder= 2.4%</p> <p><b>Alcohol misuse after adjustment for age, marital status, VA pension, recognized substance use disorder and mental health disorder diagnoses in the year prior:</b>  OEF/OIF males= 21.8%; OEF/OIF females= 4.7%; Non OEF/OIF males= 10.5%; Non OEF/OIF females= 2.9%</p>									
Seeking care from the VA and tested for HIV and/or HCV	Huckans, Blackwel, Harms, Indest, & Hauser, 2005	Cross-sectional secondary data source; not specified	US	Veterans^ seen at northwest VA clinics between 1998 – 2003  12.4% were OEF/OIF	- Alcohol use disorders - Opioid use disorders - Cocaine use disorders - Amphetamine use disorders - Other drug use disorders - Polysubstance use disorders (DSM-IV)	None	Reviewed administrative data	N= 293,445	<b>HIV tested:</b> 52.6(11.6)  F= 8.1% M=91.9%  <b>HIV+:</b> 50.0(9.6)  F= 2.3% M= 97.7%  <b>Hep C tested:</b> 60.9(16.9)  F= 6.1% M= 93.9%  <b>Hep C+:</b>

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									53.7(7.9) F= 3% M= 97%
<p><b>Alcohol use disorders:</b> HIV tested= 47.7%; HIV+= 30.0%; Hep C tested= 24.8%; Hep C+= 57.7%</p> <p><b>Opioid use disorders:</b> HIV tested= 9.6%; HIV+= 5.7%; Hep C tested= 3.1%; Hep C+= 15.6%</p> <p><b>Cocaine use disorders</b> HIV tested= 14.2%; HIV+= 11.3%; Hep C tested= 4.6%; Hep C+ = 17.7%</p> <p><b>Amphetamine use disorders</b> HIV tested= 9.2%; HIV+= 6.6%; Hep C tested= 2.7%; Hep C+= 10.4%</p> <p><b>Other drug use disorders:</b> HIV tested= 31.4%; HIV+= 21.4%; Hep C tested= 12.5%; Hep C+= 40.0%</p> <p><b>Polysubstance use disorders:</b> HIV tested= 34.6%; HIV+= 22.1%; Hep C tested= 13.3%; Hep C+= 43.9%</p>									
Seeking care from the VA	Kimerling et al., 2010	Cross-sectional secondary data source; not specified	US	OEF/OIF veterans^ who used the VA services between 2001 – 2007, who were screened for military sexual trauma (MST), and had separated from service by 2006	- Substance use disorders (ICD-9-CM)	Depression, anxiety, PTSD, adjustment disorders, any mental health disorder	Reviewed administrative data	N= 125,729	18 - >45 F= 14% M= 86%
<p><b>Substance use disorder rates</b> <b>Females:</b></p>									

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<p>Screened positive for MST= 13.9%; Screened negative for MST= 5.2%</p> <p><b>Males:</b> Screened positive for MST= 22.0%; Screened negative for MST= 12.7%</p>									
Seeking care from the VA	Maguen, Ren, Bosch, Marmar & Seal, 2010	Cross-sectional secondary data source; not specified	US	OEF/OIF veterans^ who were first-time users of a VA facility from 2002 – 2008 and separated from military service	- Drug use disorders - Alcohol use disorders (ICD-9-CM; abuse and dependence)	Depression, anxiety, PTSD, adjustment disorders, eating disorders	Reviewed administrative data	N= 329,049	31.2(9.0)  F= 12% M= 88%
<p><b>Drug use disorder rates:</b> Females= 2%; Males= 3%</p> <p><b>Alcohol use disorder rates:</b> Females= 3%; Males= 8%</p>									
Seeking care from the VA	Maguen, Cohen, Cohen, Madden, Bertenthal & Seal, 2012	Cross-sectional secondary data source; not specified	US	OEF/OIF veterans^ who were first-time users of a VA facility from 2001 – 2010 and separated from military service	- Drug use disorders - Alcohol use disorders (ICD-9-CM; abuse and dependence)	Depression, anxiety, PTSD, adjustment disorders, eating disorders	Reviewed administrative data	N= 593,739	31(8.9)  F= 12% M= 88%
<p><b>By gender</b> <b>Drug use disorder rates:</b> Females= 2.6%; Males= 5.3%</p>									

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<b>Alcohol use disorder rates:</b> Females= 5.3%; Males= 11.6%									
Previously sought medical care from the VA	Sayer et al., 2010	Cross-sectional primary/secondary data source; mixed sources-self-report and not specified	US	OEF/OIF combat veterans^ who visited a VA facility between 2003 – 2007	- Substance use disorders (ICD-9-CM) - Probable substance use disorders (Two-Item Conjoint Screen)	Depression, anxiety, PTSD, psychotic disorder, adjustment disorder, Traumatic Brain Injury (TBI)	Stratified random sampling without replacement, 62% response rate	N= 754	22 - 62  F= 55% M= 45%
<b>Substance use disorder rates:</b> Surveyed= 5%; Weighted proportion= 7% <b>Probable substance use disorder rates:</b> Surveyed= 35%; Weighted proportion= 38%									
Seeking care from the VA	Seal et al., 2009	Cross-sectional secondary data source; not specified	US	OEF/OIF veterans^ entering and using VA care from 2002 – 2008 after separating from military service	- (Illicit) drug use disorders - Alcohol use disorders (ICD-9-CM)	Depression, PTSD, any mental health disorders	Reviewed administrative data	N= 289,328	16 - 68
<b>Overall sample</b> <b>In 2002:</b> Drug use disorder= 0.2%; Alcohol use disorder= 7.1% <b>In 2008:</b> Drug use disorder= 3.0%; Alcohol use disorder= 3.0%									



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<p><b>Pre-Iraq war</b>  <b>Active duty:</b>  Drug use disorder= 0.7%; Alcohol use disorder= 1.1%</p> <p><b>Pre-Iraq war</b>  <b>National Guard/Reserve:</b>  Drug use disorder= 0.8%; Alcohol use disorder= 1.7%</p> <p><b>Peri-Iraq war</b>  <b>Active duty:</b>  Drug use disorder= 2.6%; Alcohol use disorder= 5.2%</p> <p><b>Peri-Iraq war</b>  <b>National Guard/Reserve:</b>  Drug use disorder= 1.7%; Alcohol use disorder= 4.7%</p>									
Seeking care from VA	Seal et al., 2011	Cross-sectional secondary data source; not specified	US	OEF/OIF veterans^ who had their first VA visit after military service separation from 2001 – 2009	- Alcohol use disorders - Drug use disorders - Alcohol use and drug use disorders (ICD-9-CM)	Anxiety, depression, PTSD, adjustment disorder	Reviewed administrative data	N= 456,502	28  F= 12% M= 88%
<p><b>Overall sample</b>  Alcohol use disorder= 9.9%; Drug use disorder= 4.5%; Alcohol use disorder or Drug use disorder= 11%; Alcohol use disorder + Drug use disorder= 3.0%; Alcohol abuse= 7.3%; Alcohol dependence= 5.2%; Drug abuse= 3.9%; Drug dependence= 2.7%</p> <p><b>Males:</b>  Alcohol use disorder= 10.5%; Drug use disorder= 4.8%</p> <p><b>Females:</b>  Alcohol use disorder= 4.8%; Drug use disorder= 2.4%</p> <p><b>Active Duty males:</b>  Alcohol use disorder= 7.5%; Drug use disorder= 1.9%; Alcohol use disorder + Drug use disorder= 3.7%</p> <p><b>Active Duty females:</b></p>									

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<p>Alcohol use disorder= 3.3%; Drug use disorder= 1.1%; Alcohol use disorder + Drug use disorder= 1.5%</p> <p><b>National Guard/Reserve males:</b> Alcohol use disorder= 7.2%; Drug use disorder= 1.2%; Alcohol use disorder + Drug use disorder= 2.4%</p> <p><b>National Guard/Reserve females:</b> Alcohol use disorder= 3.6%; Drug use disorder= 0.9%; Alcohol use disorder + Drug use disorder= 1.1%</p> <p><b>By age (aged 18-24, 25-29, 30-39, 40-71)</b> <b>Active Duty:</b> Alcohol use disorder= 9.5%, 7.8%, 5.8%, 2.4%; Drug use disorder= 2.4%, 2.2%, 1.4%, 0.3%; Alcohol use disorder + Drug use disorder= 5.2%, 3.9%, 2.7%, 0.6%</p> <p><b>National Guard/Reserve:</b> Alcohol use disorder= 7.8%, 7.2%, 6.7%, 5.8%; Drug use disorder= 1.6%, 1.5%, 1.0%, 0.7%; Alcohol use disorder + Drug use disorder= 3.1%, 2.8%, 1.9%, 1.4%</p> <p><b>By rank (enlisted, officer)</b> <b>Active Duty:</b> Alcohol use disorder= 7.3%, 1.7%; Drug use disorder= 7.3%, 1.7%; Alcohol use disorder + Drug use disorder= 3.7%, 0.3%</p> <p><b>National Guard/Reserve:</b> Alcohol use disorder= 7.2%, 2.3%; Drug use disorder= 1.3%, 0.3%; Alcohol use disorder + Drug use disorder= 2.4%, 0.3%</p> <p><b>By deployments (1, 2+)</b> <b>Active Duty:</b> Alcohol use disorder= 6.5%, 7.6%; Drug use disorder= 6.5%, 7.6%; Alcohol use disorder + Drug use disorder= 3.7%, 3.1%</p> <p><b>National Guard/Reserve:</b> Alcohol use disorder= 6.9%, 6.7%; Drug use disorder= 1.3%, 1.0%; Alcohol use disorder + Drug use disorder= 2.3%, 2.2%</p> <p><b>By branch (Army, Marines, Navy, Air Force)</b> <b>Active Duty:</b> Alcohol use disorder= 7.9%, 10.3%, 4.5%, 2.9%; Drug use disorder= 7.8%, 10.2%, 4.4%, 2.9%; Alcohol use disorder + Drug use disorder= 4.5%, 4.0%, 2.2%, 1.1%</p> <p><b>National Guard/Reserve:</b> Alcohol use disorder= 7.1%, 8.8%, 4.6%, 3.6%; Drug use disorder= 1.3%, 0.9%, 0.6%, 0.5%; Alcohol use disorder + Drug use disorder= 2.4%, 2.5%, 1.0%, 1.0%</p>									
Seeking care from VA	Tsai, Edens, & Rosenheck, 2011	Cross-sectional secondary data source; not specified	US	All veterans* who used VA health services during FY	- Nicotine use disorder ICD-9-CM (305.1) - Alcohol use disorder (ICD-9-CM) - Drug use disorder	Depression, anxiety, PTSD, schizophrenia,	Reviewed administrative data	N= 5,031,381	<40 - >85 F= 6% M= 94%

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				2009  4% were OEF/OIF	(ICD-9-CM)	dementia, bipolar disorder, personality disorders, homelessness			
<p><b>Overall sample:</b> Nicotine use disorder= 14.9%; Alcohol use disorder= 6%; Drug use disorder= 3.9%</p> <p><b>OEF/OIF veterans:</b> Nicotine use disorder= 15.1%</p> <p><b>Nicotine use disorder by age:</b> Under 40= 14.1%; 40-49= 21.0%; 50-64= 22.5%</p>									
Seeking care from the VA	Zivin et al., 2011	Cross-sectional secondary data source; not specified	US	Veterans <sup>^</sup> who completed the SHEP during FY2005 1% OEF/OIF	- Substance use disorders ICD-9-CM (codes reported elsewhere)	Depression, anxiety, PTSD, schizophrenia	The SHEP is randomly stratified	N= 98,867 used to represent the entire VA population	55  F= 8% M= 92%
<p><b>Overall sample:</b> Substance use disorder rates= 7%</p> <p><b>By employment status:</b> Employed= 4%; Unemployed= 14%; Other employed= 6%; Disabled/unable to work= 10%; Retired= 6%</p>									