

Returning Military Personnel, Veterans & Their Families: *How Research is Effecting Positive Change*



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MH Problems in Veterans from Iraqi and Afghanistan Wars

- As of 2001, approximately 1.64 million U.S. troops have been deployed for Operations Enduring Freedom (OEF) and Iraqi Freedom (OIF) in Afghanistan and Iraq.
- In these soldiers prolonged exposure to combat-related stress may be disproportionately high compared with the physical injuries of combat.
- Specific concerns have been centered on **post-traumatic stress disorder, depression, traumatic brain injury, suicide and SUD**



NATIONAL INSTITUTE ON DRUG ABUSE

Addressing Substance Abuse and Comorbidities Among Military Personnel, Veterans, and Their Families: A Research Agenda

**January 6–7, 2009
Hyatt Regency
Bethesda, MD**

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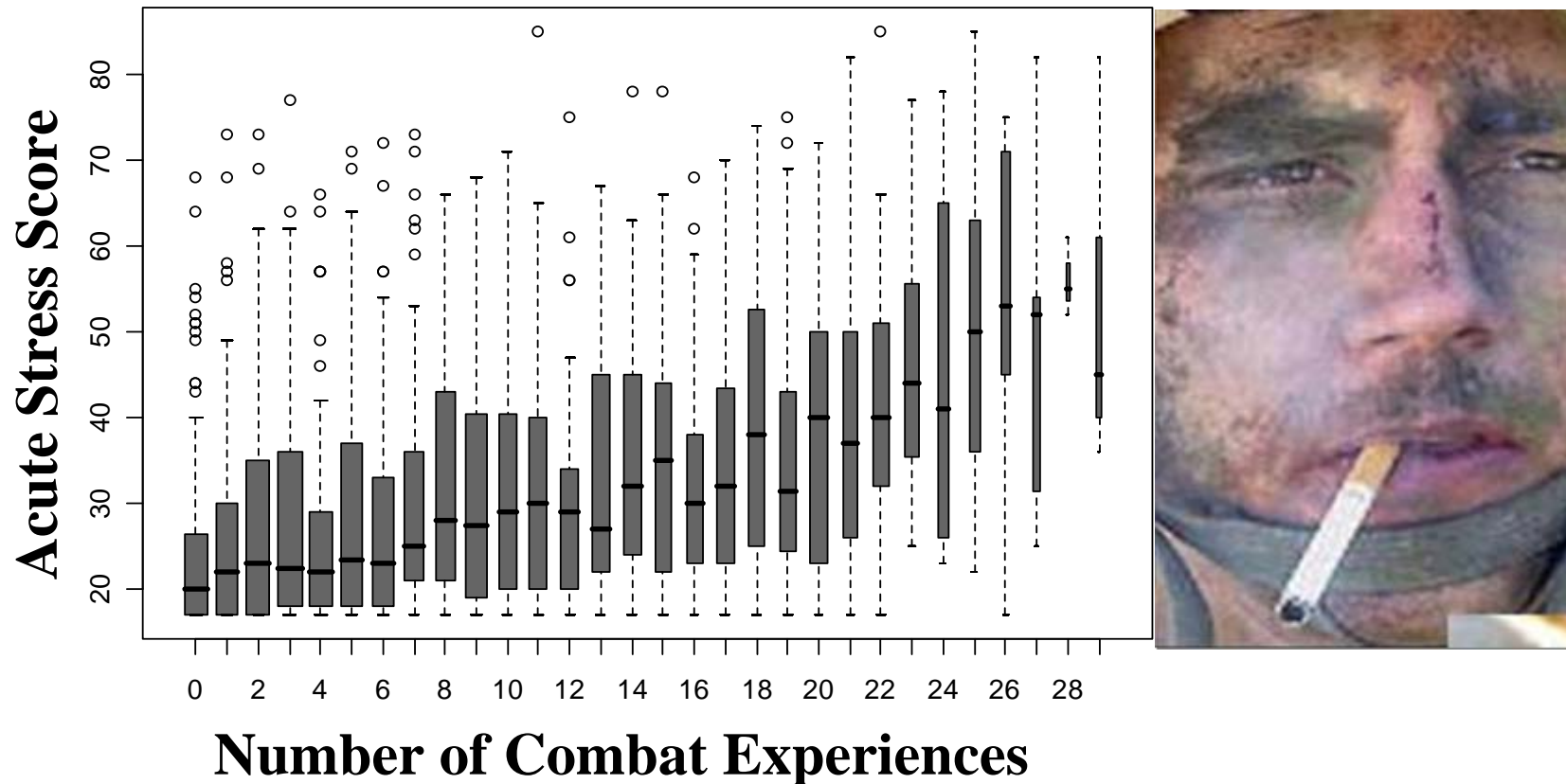
In Collaboration with:

U.S. Department of Defense • U.S. Department of Veterans Affairs
National Institute of Mental Health • National Institute on Alcohol Abuse and Alcoholism
National Cancer Institute • National Heart, Lung, and Blood Institute



Combat Exposure Is the Key Driver of Mental Health Problems Across Outcomes

Soldiers who report high levels of combat are significantly more likely to screen positive for acute stress (PTSD symptoms)



Adapted from presentation by: MAJ Jeff Thomas, Walter Reed Army Institute of Research.

New-onset PTSD Symptoms or Diagnosis

7.6% - 8.7% deployed with combat
1.4% - 2.1% deploy without combat
2.3% - 3.0% did not deploy

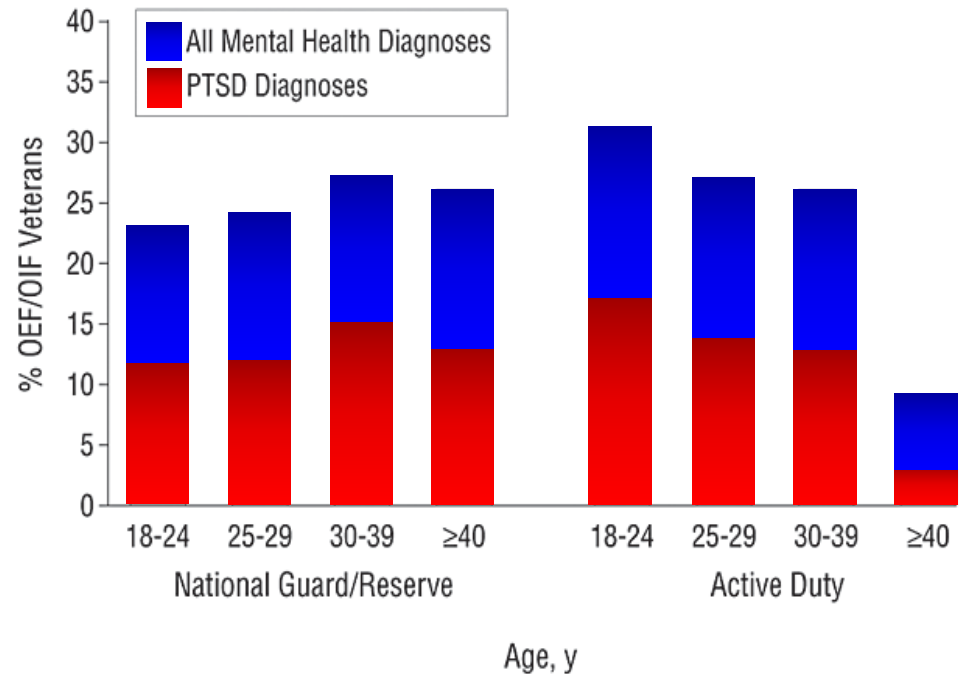
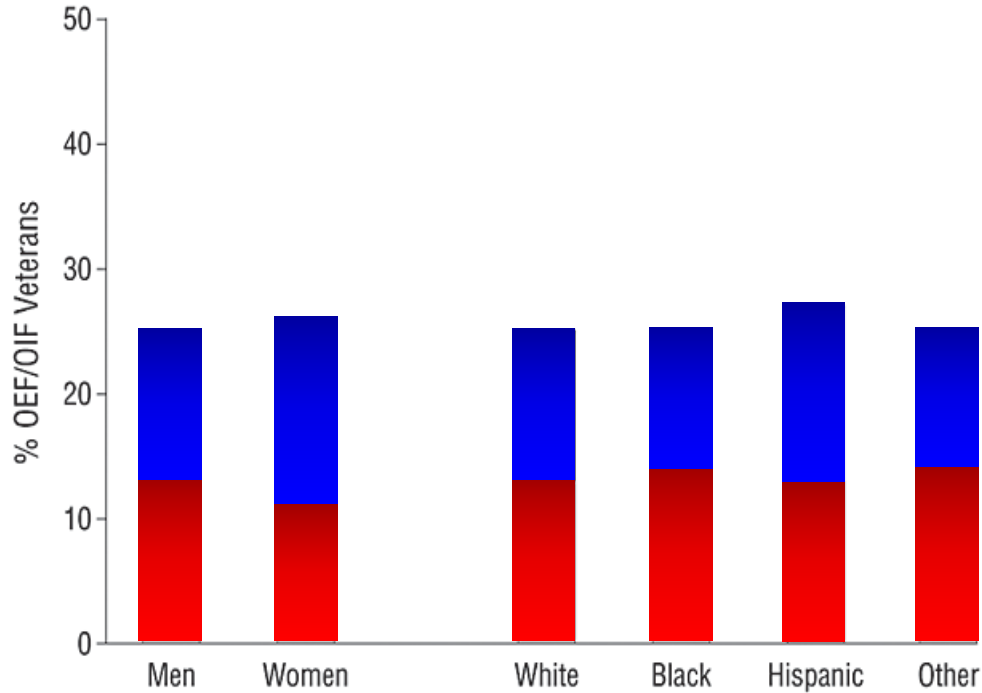
- Army **OR=3.59**
- Air Force **OR=3.38**
- Marine Corps **OR=2.78**
- Navy or Coast Guard **OR=2.48**

***PTSD three-fold higher among
deployed with combat exposures***



Smith TC et al. for the Millennium Cohort Study Team. New onset and persistent symptoms of posttraumatic stress disorder self-reported after deployment and combat exposures: prospective population-based US military cohort study. British Medical Journal. 2008 Feb;336(7640):366-71.

PTSD and Mental Health Diagnoses Among OEF/OIF Veterans Seen at VA Facilities



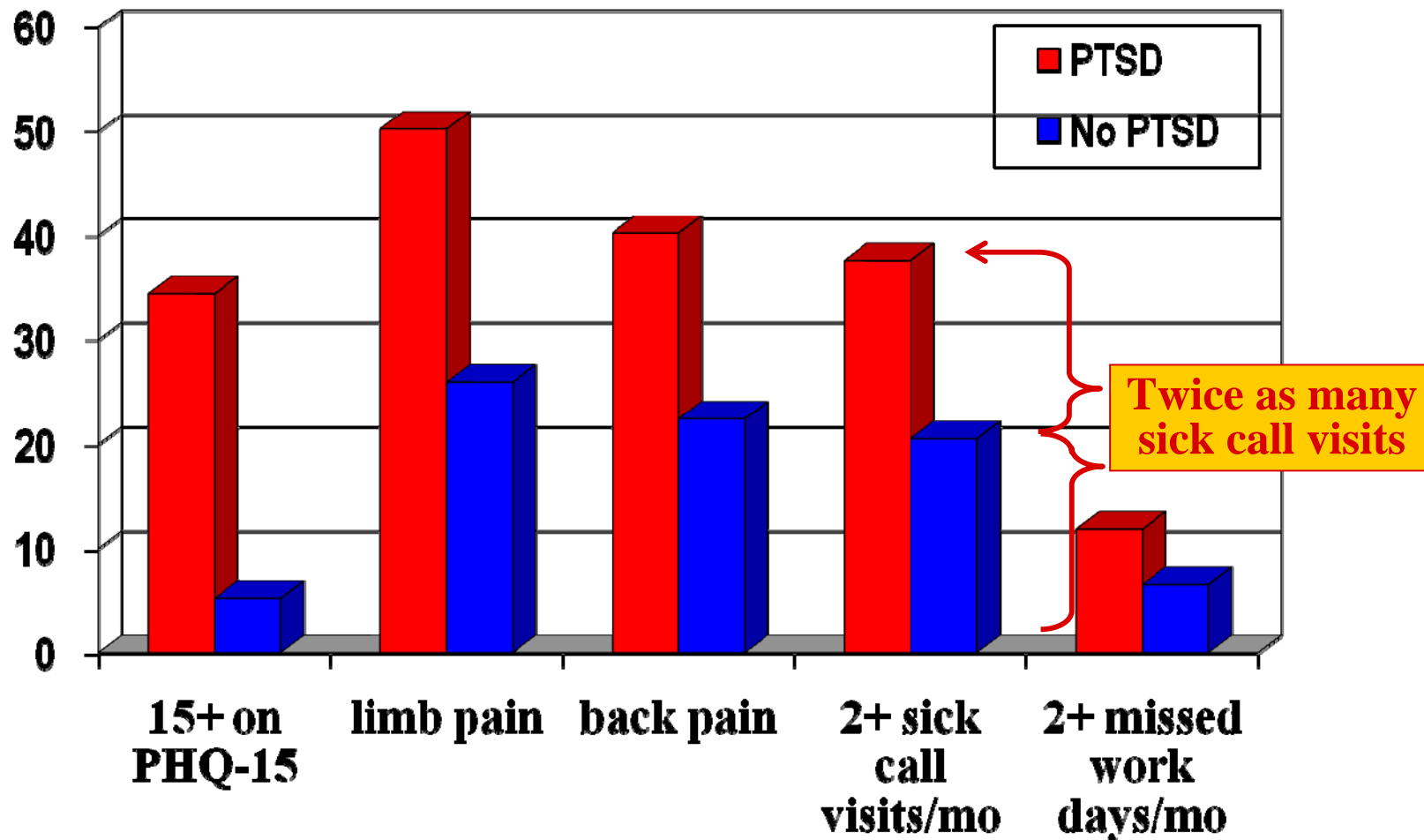
Seal, KH et al., Arch Int Med 2007;167:476-482.

Post Traumatic Stress Disorder

- 7.6% of those deployed with combat developed PTSD vs. 1.4% of those deployed w/o combat**
- 43.5% of those w/ PTSD deployed with combat still had symptoms 3 years later**

Post-Deployment Health Consequences

2,863 Iraq War returnees one-year post-deployment



Hoge et al., AJP 2007;164: 150-153.

Research Shows that Social *Stressors* Can Have Profound Effects on Illicit and Licit Drug Use



1. Facilitate Initiation



2. Increase Risk of Addiction



3. Trigger Relapse

Smoking in Military Personnel

- **Smoking rates are higher in the military than in the general population (32.2% vs 24.9% in 2005).**

Bray & Hourani. Addiction 2007;102:1092-1101; NSDUH, SAMHSA.



- **\$130 million are spent annually by the military on excess training alone due to smokers that are prematurely discharged.**
- **Service members who smoke have lower fitness levels and are at greater risk for physical injury.**

Smoking has been shown to be a coping mechanism for those exposed to stress.

Smith et al., Am J Preventive Medicine 2008.

Smoking and Deployment

- **Increase predominantly due to smoking reuptake rather than smoking initiation**
- **Among past smokers, deployment with combat, deploying multiple times, and deployment >9 months increased risk of smoking reuptake**
- **Among baseline smokers, deployment not associated with increased amount of smoking**
- Smith B, Ryan MAK, Wingard DL, Patterson TL, Slymen DJ, Macera CA, for the Millennium Cohort Study. Cigarette smoking and military deployment: a prospective evaluation. American Journal of Preventive Medicine, 2008 Dec;35(6):539-46.

Alcohol Use in Military Personnel

- Excessive **alcohol drinking** and related harms are common among military personnel.
- **43.2% of active duty military personnel reported at least one episode of binge drinking in the past month vs 26.1% for comparable age civilians**

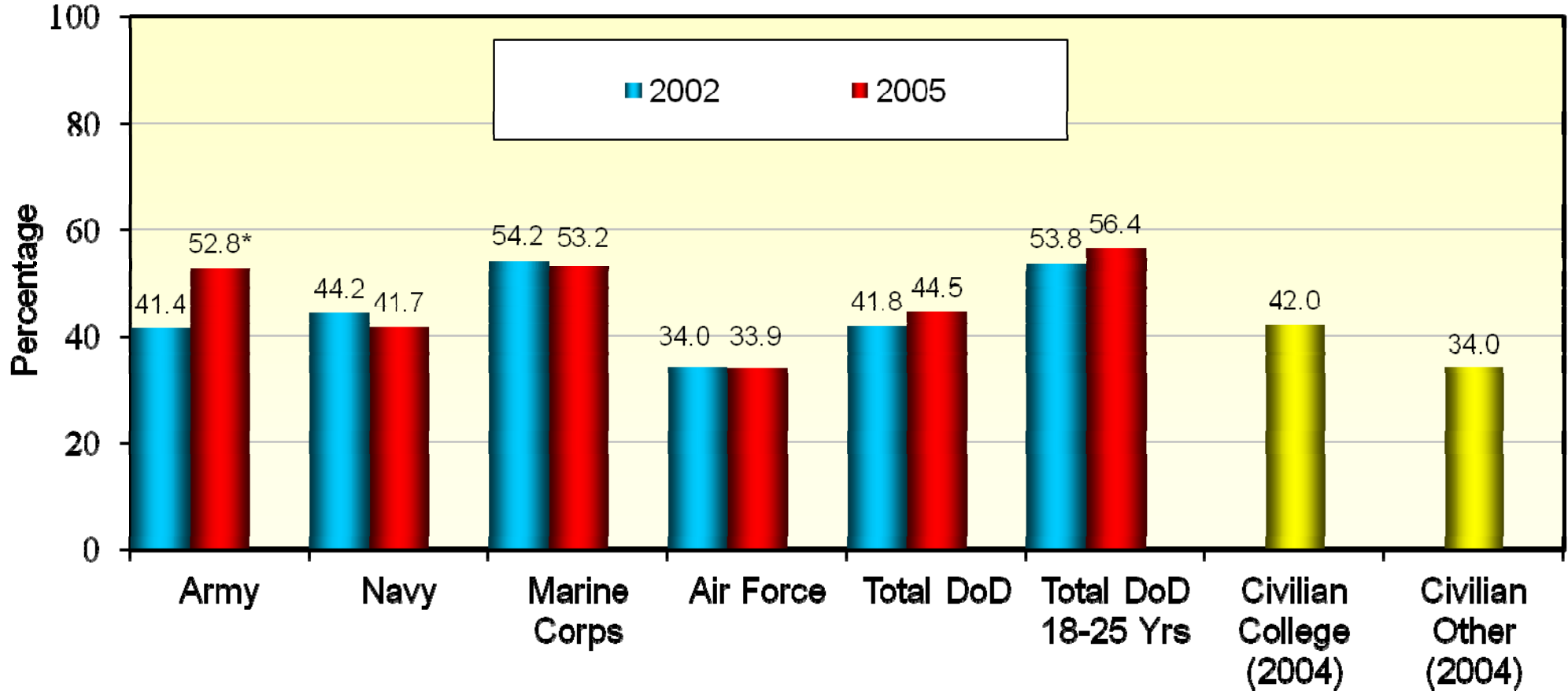
(Stahre et al., Am J Preventive Medicine 2008).



Unadjusted Binge Drinking Rates by Service, 2002 – 2005

DoD Survey of Health Related Behaviors

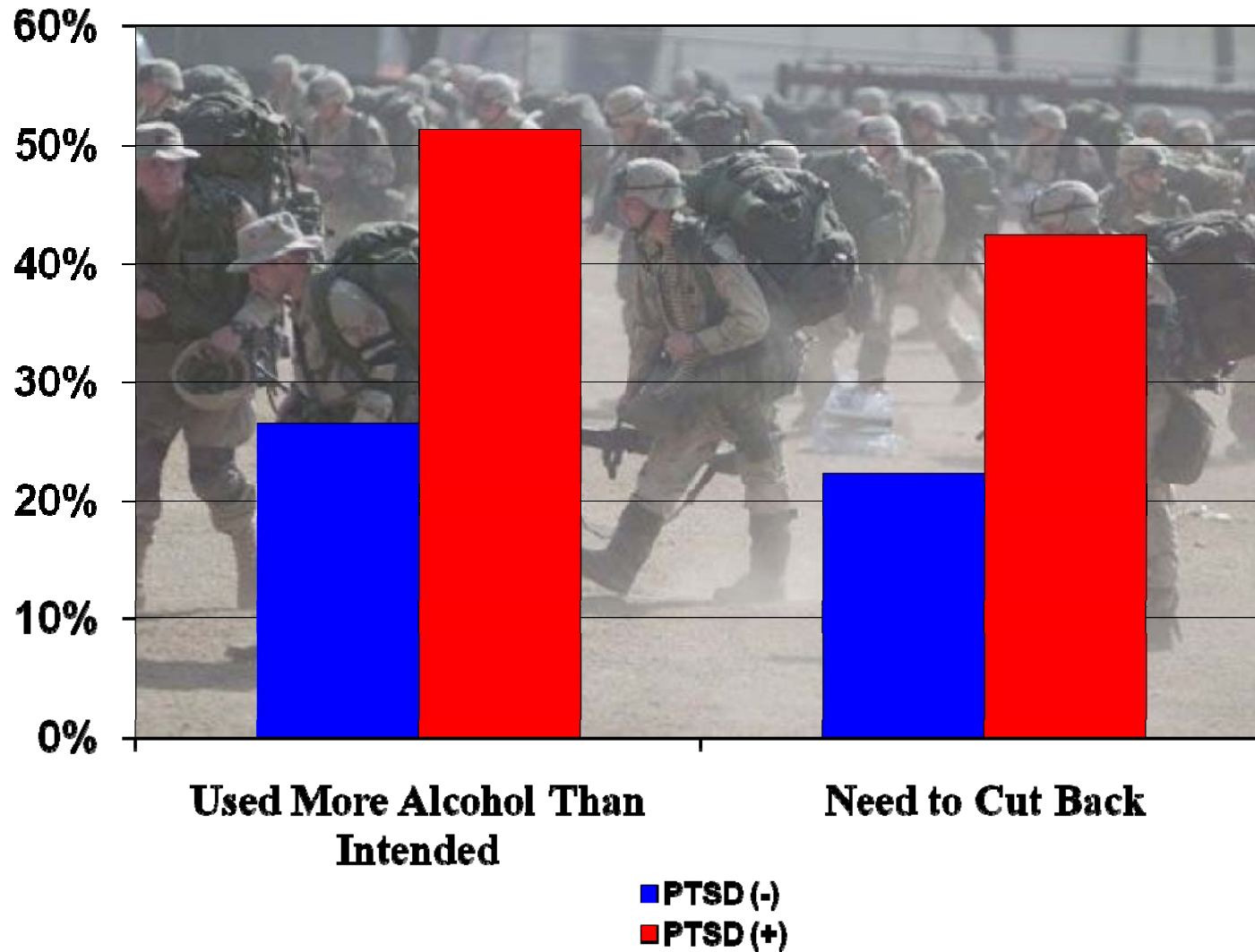
Binge Drinking = 5 or more drinks on a single occasion at least once in in the past 30 days



*Significant difference between 2002 and 2005 at .05 level.

Civilian estimate for 1-4 years past High School reported from Monitoring the Future, past 2 weeks, 2004.

Alcohol Misuse & Relationship to PTSD



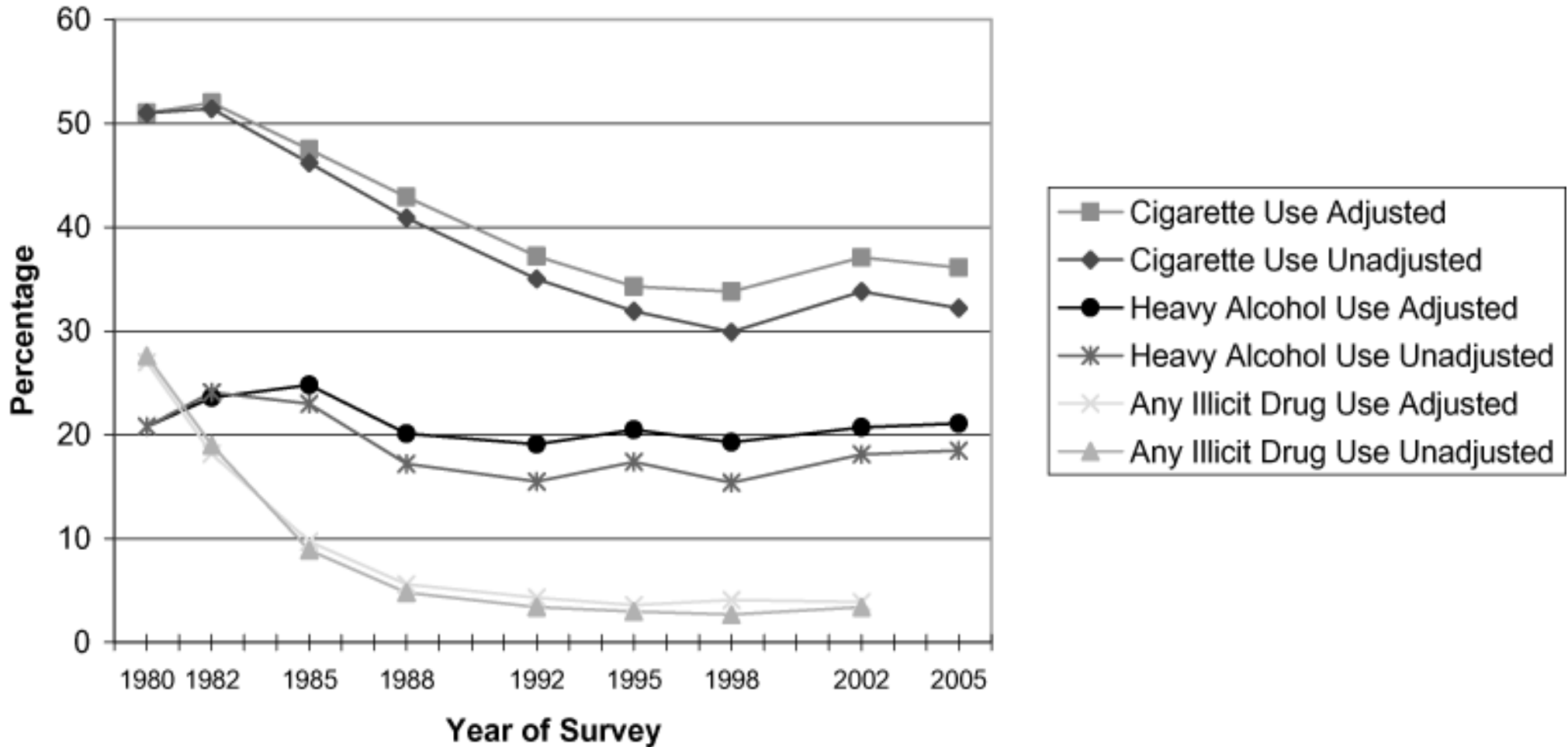
Hoge, et al. N Engl J Med. 2004;351:13-22.

Illicit Substance Abuse in OEF/OIF Veterans

less than in veterans of other wars

- **Drug use is a dischargeable offense**
- **Stigma regarding drug abuse and mental health treatment within VA**
- **SUD or Treatment may negatively impact career (e.g., security clearance)**
- **Limited confidentiality regarding one's medical records**

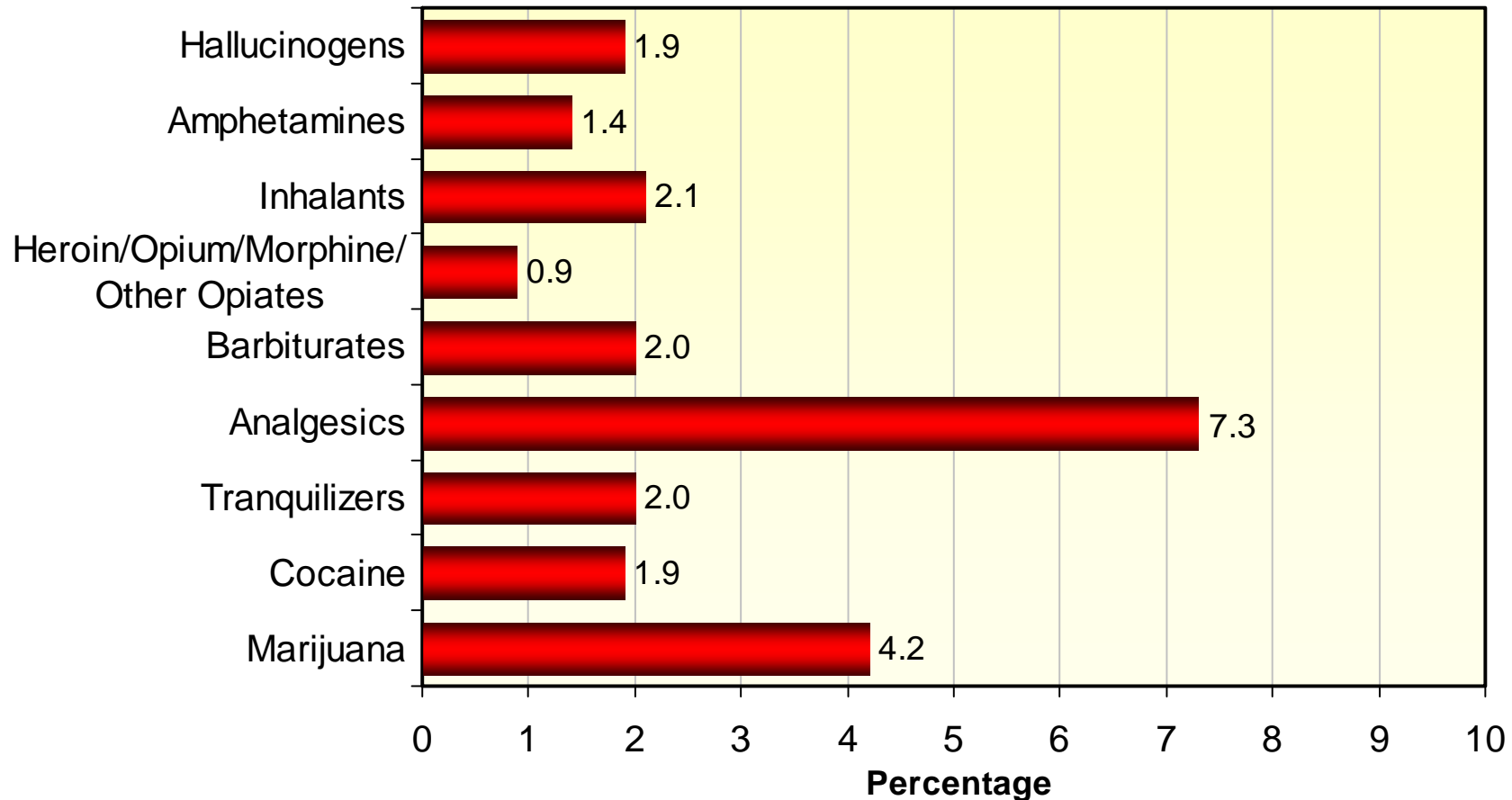
SUD for Past 30 Days for Total DOD



* adjusted and unadjusted for socio-demographic characteristics for total Department of Defense, 1980–2005.

Bray and Hourani Addiction 2007.

DoD Illicit Drug Use for Selected Drugs Past 12 Months, 2005*



Note: 97% (total DoD) reported being tested for drug use in past 12 months.

**Not comparable with estimates in prior survey years due to questionnaire changes--specific drug examples were added in 2005. Any Illicit drug use = Use of any drug asked about one or more times in the past 12 months for non-medical purposes (overall rate for any drug use = 10.9%, excluding steroids).*

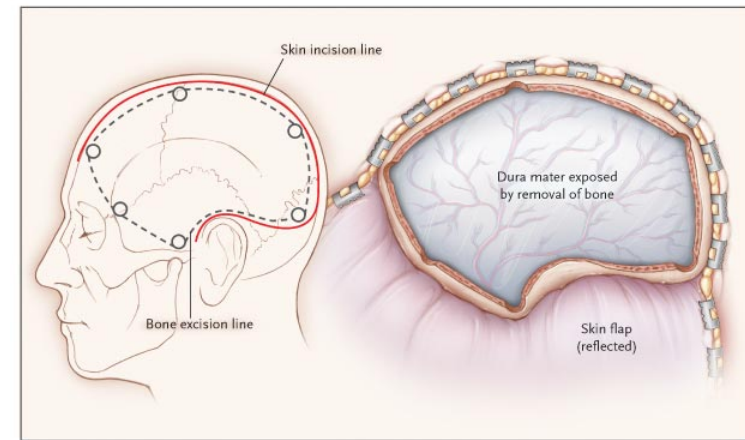
Additional Problems in Veterans from the Iraqi and Afghanistan Wars

- As a result of improvements in battlefield medicine 90% of severely wounded soldiers survive and face additional challenges imposed by significant **PAIN**.
- **Chronic pain** increases the risk of mental health disorders including substance abuse disorders.
- Exposure to opiate medications for the treatment of chronic pain can result in opiate addiction.



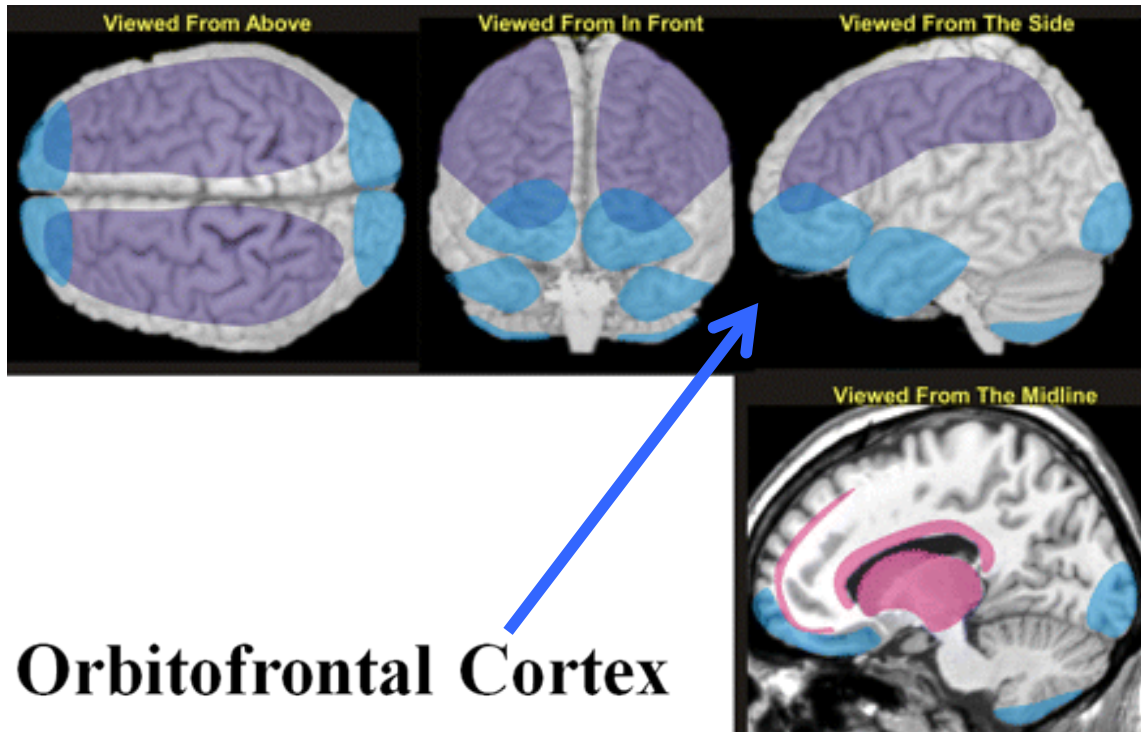
Peoples et al., NEJM 2004.

Traumatic Brain Injury Veterans (OEF and OIF)



- **Mild Traumatic Brain Injury (TBI) has been reported in 12-18% of soldiers evacuated from Iraq and Afghanistan** (*Carson study: 1 in 6 shows TBI symptoms. Associated Press. April 11, 2007*).
- **Mild TBI occurring among soldiers deployed in Iraq is strongly associated with PTSD and poorer physical health 3 to 4 months after returning home** (*Hoge CW et al., NEJM 2008*).

Brain Areas Affected by TBI



Orbitofrontal Cortex

Diffuse Axonal Injury
Subdural Hemorrhage
Contusions

Taber et al., J Neuropsychiatry Clinical Neuroscience 2006.

The orbitofrontal cortex is disrupted in addicted subjects and this may contribute to their vulnerability for SUD

Volkow et al., Neuropharmacology 2009.

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Who else is affected?

Spouses



Families

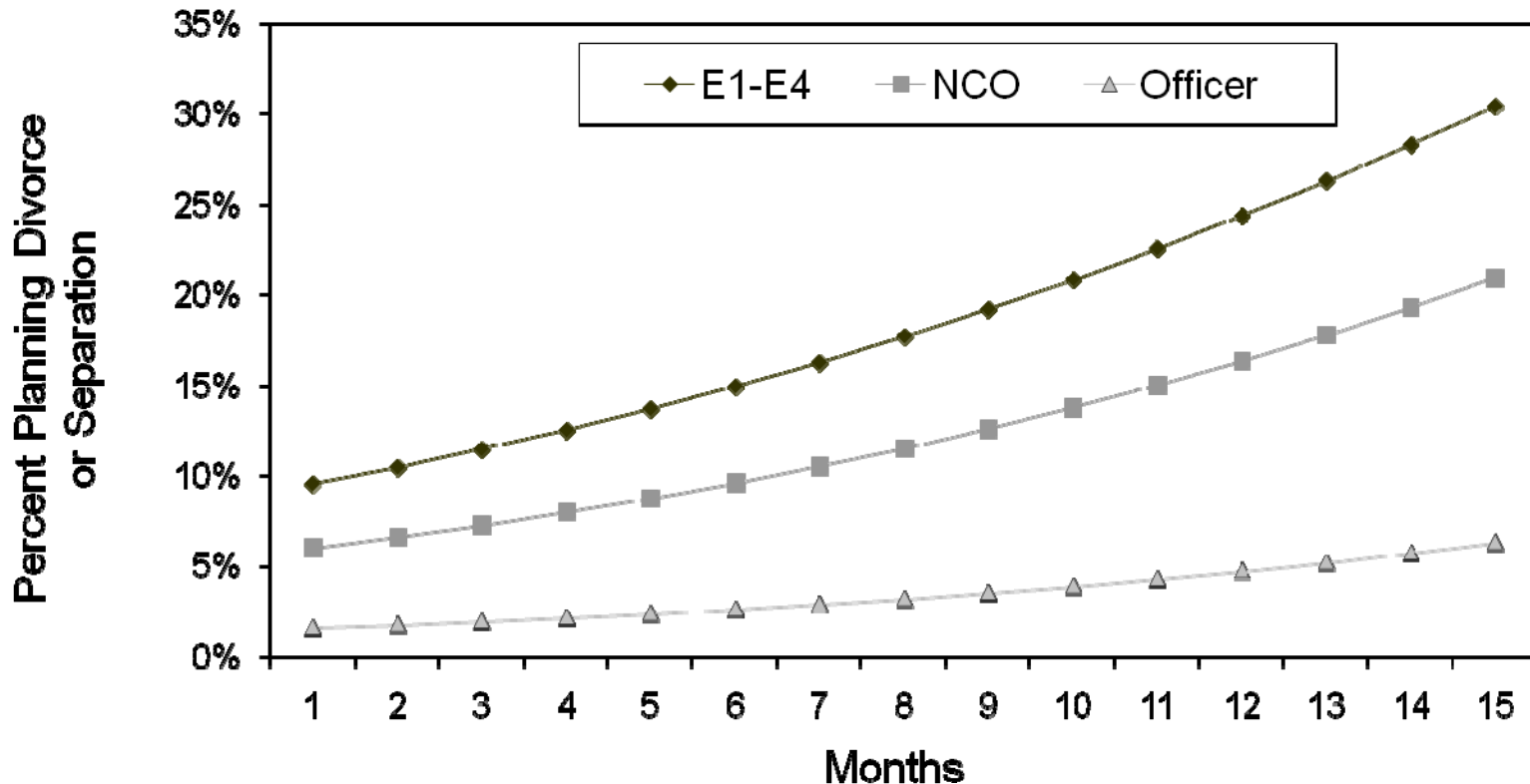


Communities



Deployment Length: Divorce/Separation Intentions

- Soldiers' reports of whether they plan to get a divorce or separation increase with each month of the deployment.



Additional Problems in Veterans

- **Nearly one-quarter of Gulf War veterans had been incarcerated at some point.**
- **Ever incarcerated veterans had a higher frequency of psychiatric & medical co-morbidity.**
- **Ever incarcerated status was associated with having used illegal drugs.**
- **Incarceration dramatically increased suicide risk (5-6 fold) & this risk is greater in individuals with SUD**
(Wortzel et al., J Am Acad Psychiatry Law 2009, Shaw et al., Br J Psychiatry 2004).

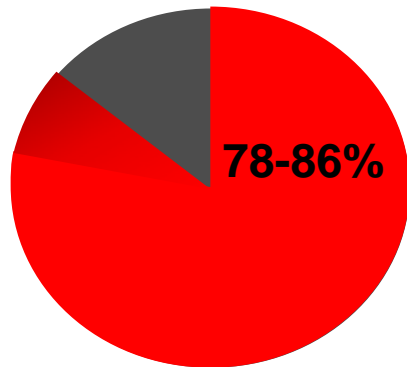


Population Penetration

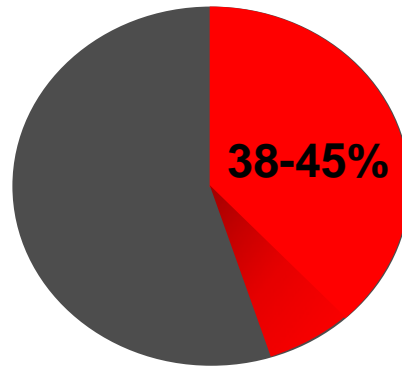
Gap in Need Vs. Service

Got help (past 12 months)

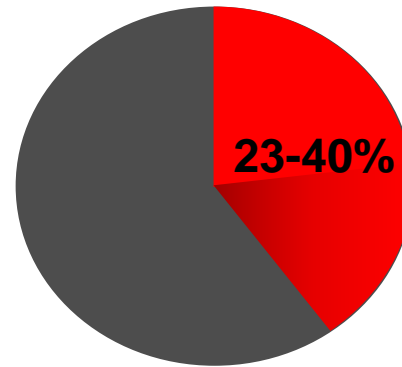
Acknowledge a problem



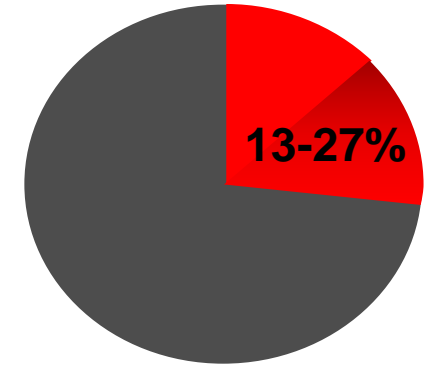
Want help



Any professional



Mental health professional



STIGMA is the Main Perceived Barrier to Seeking MH Services Among Respondents Who Met Criteria for a Mental Disorder

If we treat a *wound* and symptoms don't subside...what do we do?

Would we increase the dose?

Would we change medications?

Would we change treatment approaches?

Would we fail to provide ongoing treatment for a wounded individual?



*Where Do We Need
to Go From Here?*

We Need to...



*Advance the **SCIENCE**
and to...*

*End the **STIGMA**
& **Discrimination***