



DEFENSE CENTERS OF EXCELLENCE
For Psychological Health & Traumatic Brain Injury

Substance Misuse Prevention: Reducing the Risk of Suicide

Lt. Cmdr. David Barry, PSY.D., USPHS
**Defense Centers of Excellence for Psychological Health and
Traumatic Brain Injury**
Resilience and Prevention Directorate
Substance Abuse Subject Matter Expert
JUNE 20, 2012



Objectives

- Identify the prevalence of substance abuse within the active duty community.
- Define pertinent substance abuse terms, to include relative norms and responsible drinking levels.
- Describe the co-morbid relationship between suicide and substance misuse/abuse.
- Highlight current directions in substance abuse prevention strategies.
- Provide and describe prevention skills that can be utilized to mitigate substance misuse/abuse related to suicide events and attempts.

Substance Misuse and Suicide

- 67 percent of service members who attempted suicide in 2007 self-reported using alcohol or drugs during the event.
(Army Suicide Event Report (ASER) for 2007, March 2008)
- History of substance abuse associated with suicide = 28 percent.
 - History substance abuse associated with attempts = 24 percent.
(Army Generating Health and Discipline in the Force, 2012)
- Alcohol misuse and drug abuse are considered high-risk behaviors.
(Army Generating Health and Discipline in the Force, 2012)
- Individuals with a substance use disorder (SUD), either a diagnosis of abuse or dependence, are almost six times more likely to report a lifetime suicide attempt than those without a substance use disorder.
(Kessler, Borges, and Walters, 1999)
- Evidence from veterans indicates that men with a substance use disorder are approximately 2.3 times more likely to die by suicide than those who are not substance abusers. Among women, a substance use disorder increases the risk of suicide 6.5 fold.
(Ilgen, Bohnert, and Ignacio, 2010)

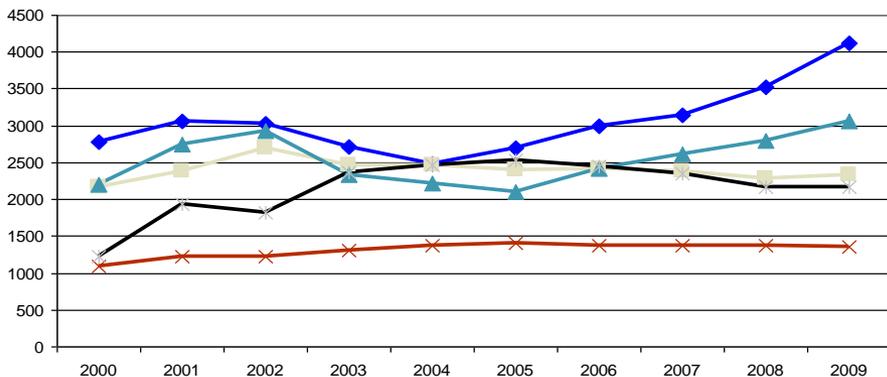
Substance Abuse Prevalence

- According to the Substance Abuse and Mental Health Services Administration (SAMHSA, 2011), substance abuse is a leading health problem:
 - 22.1 million Americans with substance abuse/dependence in the past year.
 - 15.4 million abuse alcohol.
 - 4.2 million use illicit drugs.
 - 2.9 million used alcohol and illicit drugs.
- 43 percent of active duty service members reported binge drinking in a 30-day period. (Army Generating Health and Discipline in the Force, 2012)
 - Civilian rate for heavy drinking = 5 percent.
(Centers of Disease Control and Prevention (CDC) Behavioral Risk Factor Surveillance System, 2010)
 - Civilian rate for binge drinking = 15.1 percent.
(CDC Behavioral Risk Factor Surveillance System, 2010)
- The number of substance abuse/dependence military medical encounters in 2010 is 50 percent greater than in 2001.
(Medical Surveillance Monthly Report, October 2011).

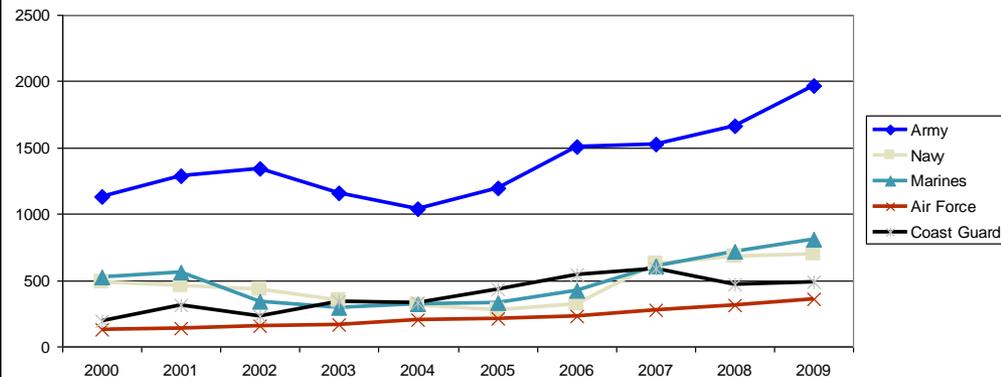
Substance Use Disorders Active Duty Trends

- Prevalence of alcohol and drug disorders among active duty:

Prevalence of Alcohol-Related Disorders Among Active Duty
(Rates per 100K)



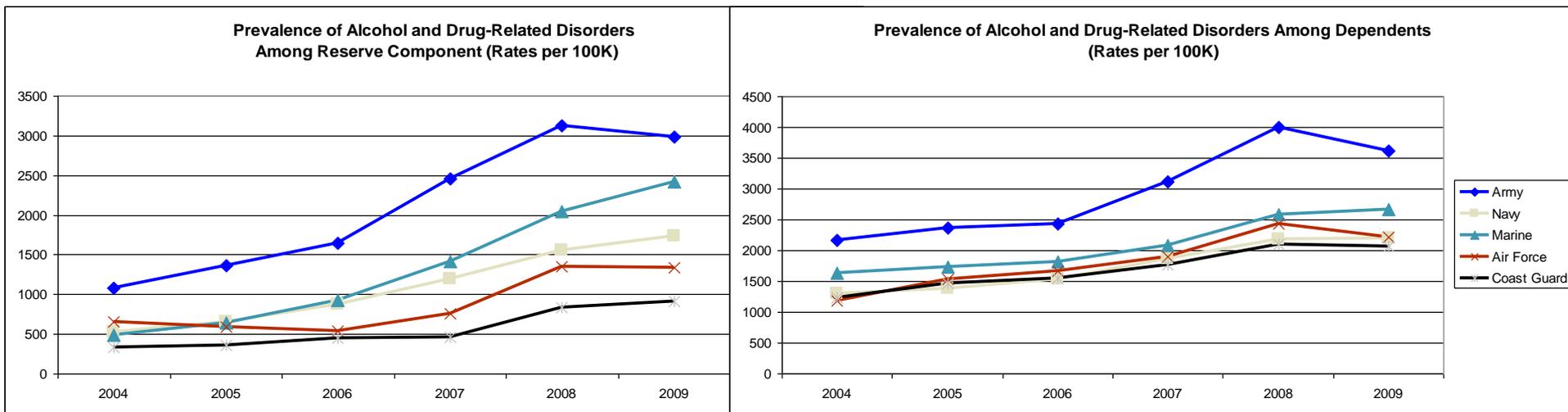
Prevalence of Drug-Related Disorders Among Active Duty
(Rates per 100K)



(Source: National Defense Authorization Act (NDAA) Section 596, 2010)

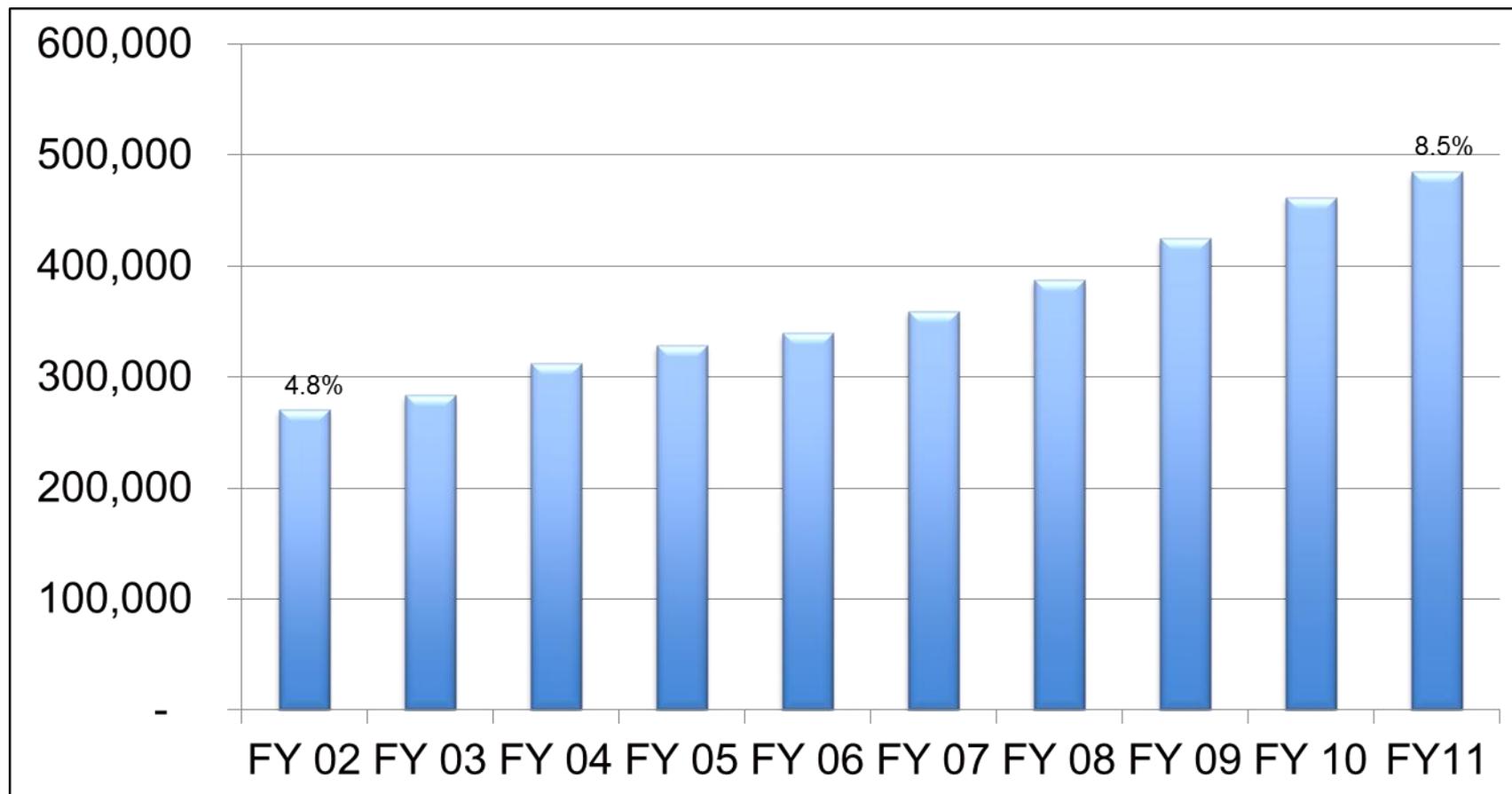
Substance Use Disorders Dependent and Reserve Component Trends

- Prevalence of alcohol and drug-related disorders among reserve component and military dependents:



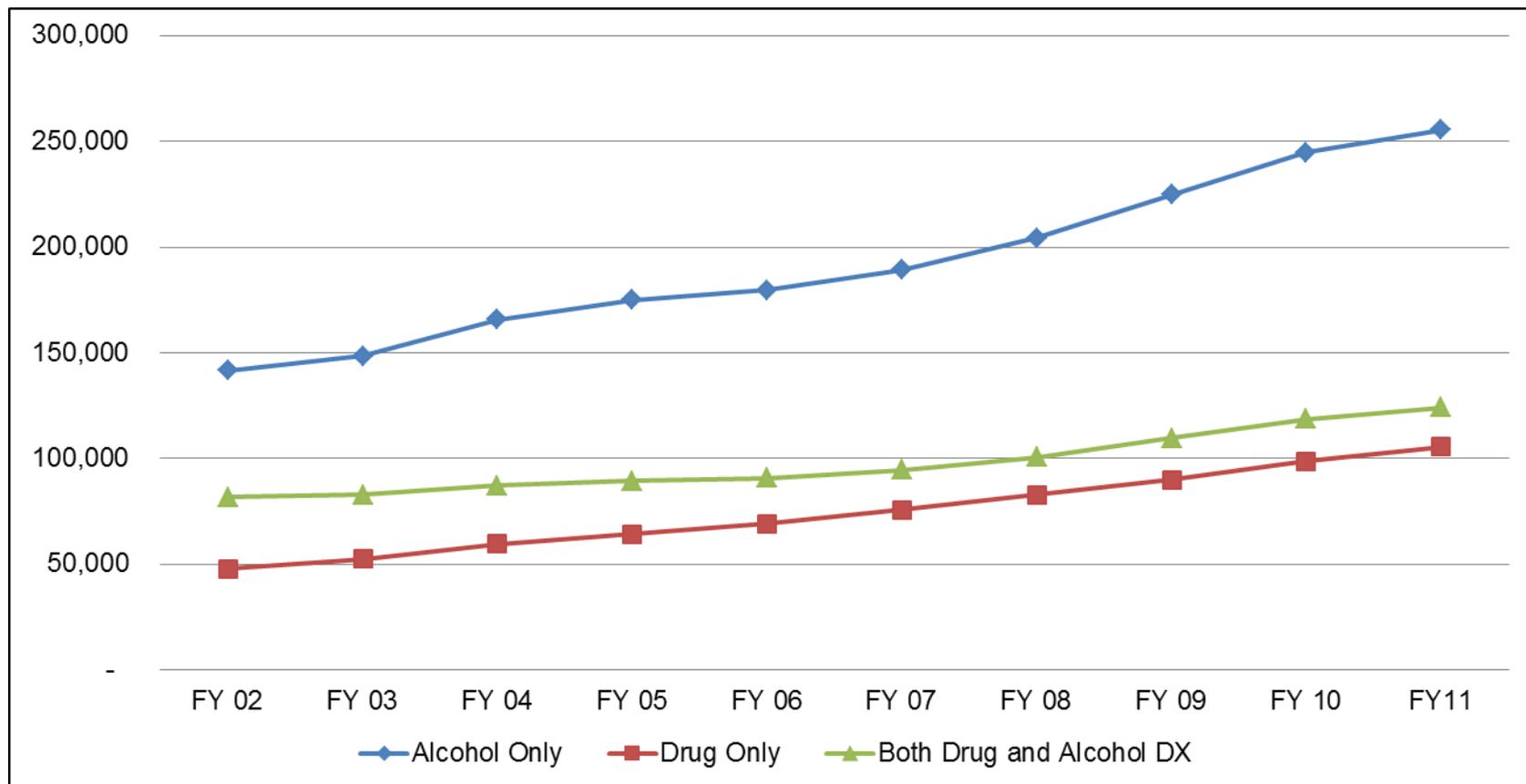
(Source: NDAA Section 596, 2010)

Annual Prevalence of SUD Diagnoses among Veterans Health Administration (VHA) Patients



(Source: Veterans Health Administration)

Trends in SUD Diagnoses in VHA for All Veterans with SUD



(Source: Veterans Health Administration)

Unhealthy and Heavy Drinking Defined

- Not all drinks are created equal.



One Pint of Beer



One Bottle of beer

What is a Standard Drink?

- A standard drink is any drink that contains about 14 grams of pure alcohol (0.6 fluid ounces or 1.2 tablespoons).

STANDARD DRINK EQUIVALENTS	APPROXIMATE NUMBER OF STANDARD DRINKS IN:
BEER or COOLER	
12 oz.	•12 oz. = 1
	•16 oz. = 1.3
~5 percent alcohol	•22 oz. = 2
	•40 oz. = 3.3
MALT LIQUOR	
8-9 oz.	•12 oz. = 1.5
	•16 oz. = 2
~7 percent alcohol	•22 oz. = 2.5
	•40 oz. = 4.5
TABLE WINE	
5 oz.	
~12 percent alcohol	•a 750 mL (25 oz.) bottle = 5
80-proof SPIRITS (hard liquor)	
1.5 oz.	•a mixed drink = 1 or more*
	•a pint (16 oz.) = 11
	•a fifth (25 oz.) = 17
	•1.75 L (59 oz.) = 39
~40 percent alcohol	*Note: Depending on factors such as the type of spirits and the recipe, one mixed drink can contain from one to three or more standard drinks.

Source: National Institute on Alcohol Abuse and Alcoholism (NIAAA) of the National Institutes of Health

Low-Risk Drinking Pattern

- According to the National Institute on Alcohol Abuse and Alcoholism (NIAAA), the following limits are considered the boundary between low-risk drinking and at-risk or heavy drinking.



The graphic features a blue calendar on the left side, showing dates from 1 to 31. To its right is a table with a blue header and white body. The table is divided into three columns: 'Low-risk drinking limits', 'MEN', and 'WOMEN'. The first row is for 'On any single DAY' and the second row is for 'Per WEEK'. The table specifies the number of drinks allowed per day and per week for each gender, with visual representations of drinks using blue bars. A note at the bottom states: 'To stay low risk, keep within BOTH the single-day AND weekly limits.'

Low-risk drinking limits	MEN	WOMEN
On any single DAY	No more than 4 drinks on any day	No more than 3 drinks on any day
	** AND **	** AND **
Per WEEK	No more than 14 drinks per week	No more than 7 drinks per week

(Source: NIAAA, 2012)

To stay low risk, keep within BOTH the single-day AND weekly limits.

- The following can also contribute to risky drinking:
 - Rate of consumption.
 - Ongoing medical problems or medications.
 - Tolerance.
 - Age

Drinking Terms Defined

- Heavy drinking: consuming, on average, two or more drinks per day.
(Source: CDC)
- Binge drinking: consuming five or more drinks (four or more for women) during a typical drinking period or a drinking pattern that brings the blood alcohol content over 0.08 percent. This generally occurs over a two-hour period.
(Source: CDC)
- Abuse and dependence: Diagnoses following Diagnostic and Statistics Manual – IV (DSM – IV, 2000) diagnostic criteria.
 - A maladaptive pattern of drinking, leading to clinically significant impairment or distress.
 - Failures in role functioning.
 - Recurrent hazardous use.
 - Potential legal problems.
 - Continued use despite having problems.
 - Much time spent engaged in substance abuse behaviors.
 - Tolerance (dependence only).
 - Possible withdrawal (dependence only).

What are the Risks?

- According to the American Medical Association and NIAAA, the following are the primary risks to alcohol misuse:
 - 37 percent suicides (civilian population).
 - Injuries: Alcohol is a major contributor to injuries and fatalities.
 - 60 percent of fatal burn injuries, drowning and homicides.
 - 50 percent severe trauma injuries and domestic and sexual assaults.
 - 40 percent motor vehicle accidents.
 - Health Problems: liver disease, heart disease, sleep disorders, depression, stroke, stomach ulcers and other ailments.
 - Alcohol Use Disorders: Diagnostic and Statistical Manual 4th Edition DSM-IV, Alcohol Abuse and Dependence Disorders.
 - Birth Defects: Fetal Alcohol Syndrome.

Risk Factors for Heavy/Abusive Drinking

- Higher rates of heavy drinking was associated with the following six socio-demographic variables:
 - Branch of service: increased risk with Army and Marine Corps.
 - Gender: male risk > female risk.
 - Race/ethnicity: highest amongst non-Hispanic Caucasian.
 - Education: increased risk with high school or less.
 - Marital status: spouse present in the home is protective.
 - Age: greatest at risk age range is ages 18 to 25.
(Bray et al., 2003)
- Deployment-related experiences (e.g., combat related traumas) and deployment-related psychological stress were associated with an increase in frequency of binge/heavy drinking behaviors.
(Ramchand et al., 2011)

Suicide Risk Factors

- Many suicide risk factors overlap with risk factors for substance misuse/abuse.
- Biopsychosocial:
 - Mental disorders.
 - Hopelessness.
 - History of trauma and/or abuse.
 - Major physical illness.
- Environmental:
 - Job or financial loss.
 - Relational or social loss.
- Sociocultural:
 - Lack of social support and/or isolation.
 - Stigma to help seeking behaviors.
 - Certain cultural or religious beliefs.

(Source: Suicide Prevention Resource Center, 2008)

Alcohol Misuse Prevention: Deterrence Device



Source: Department of Defense

Public Health Approach to Prevention

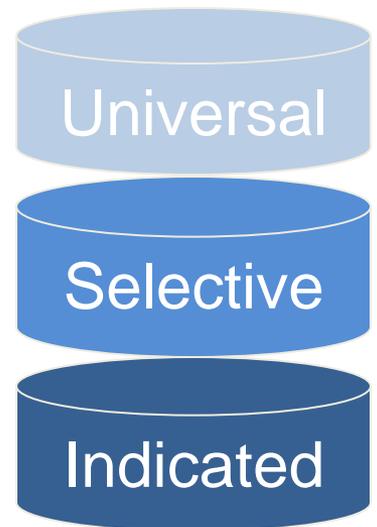
- Prevention programs need to span the spectrum and address the population as a whole, sub-populations at-risk and individuals exhibiting signs of misuse.
 - Prevention spans across the illness from primary, educational prevention through treatment interventions and recovery support.



(Source: NIMH 1998)

Prevention Tiers

- Three tiers to prevention:
 - Universal: prevention strategies are designed to reach the entire population, without regard to individual risk factors and are intended to reach a very large audience.
 - Selective: prevention strategies target subgroups of the general population that are determined to be at risk for substance abuse.
 - Indicated: prevention interventions identify individuals who are experiencing early signs of substance abuse.



Integrated “Upstream” Approach to Prevention

- Emphasize connections beyond the acute care model.
 - Multidisciplinary approach for a larger context of care.
 - Primary and behavioral health providers to go beyond individual disciplines to coordinate, communicate and integrate for a broader health service.
- Educate providers on behavioral health risk factors, and in turn primary providers communicate with behavioral health on how best the disciplines can be integrated.
- Addressing substance abuse and suicide at every medical appointment increases the likelihood that these issues will be prevented and/or identified.

(Source: SAMHSA. (2008). White Paper, *Substance Abuse and Suicide Prevention: Evidence and Implications*)

Prevention Intervention Topics

- Target at-risk groups;
 - 18 to 25 age range.
 - Upon returning from deployment and after a period of adjusting back to home life.
 - Those that have had multiple deployments.
 - Individuals with reported deployment-related traumas.
- Deglamorize alcohol: change the culture on alcohol usage.
- Intervention techniques to mitigate suicide and substance abuse.
 - Remove firearms: when concerns are sufficient.
 - No-drinking contract with patients who have depression or demonstrate any risk factors.
 - Remove alcohol/drugs from the home.
 - Include other treating providers into care.
 - If the patient is amendable, include family and command.

Recommendations for Providers and Leaders

- When querying substance usage, in a non-judgmental manner have the member define their level of usage.
 - How often and how much?; What is their definition of usage?
- Be non-confrontational, use language that puts you aligned with the member rather than judgment over them.
 - Motivational interviewing: a person-centered, goal-oriented communication style that promotes change by guiding an individual to elicit and strengthen motivation for change. (Miller & Rollnick, 2009)
- Be mindful of stigma. Perceived and imagined barriers to seeking care for mental health can impede upon progress, following-up with services, and identification of a substance use problem or risk for suicide.
 - Common fears include: fear of losing one's career, security clearance or reputation amongst peers, family, and co-workers.

Recommendations for Providers and Leaders Continued

- Know the co-morbidities to suicide, such as substance use and depression.
- Do not treat the patient alone, take a multidisciplinary approach.
 - When concerned consult or refer. Service-related regulations request and/or require referrals and consults when potential duty limiting conditions arise.

DOD and Services Substance Prevention Programs

- **Real Warriors Campaign**
<http://www.realwarriors.net/>
- **Outreach Center (24/7 by phone and chat)**
<http://www.dcoe.health.mil/24-7help.aspx>
- **In Transition Program**
<http://www.health.mil/InTransition/default.aspx>
- **AfterDeployment.org**
<http://afterdeployment.org/>
- **Navy Right Spirit**
http://www.public.navy.mil/bupers-npc/support/nadap/campaign_events/Pages/RightSpirit.aspx
- **Army ASAP Program Prevention Tools**
<http://acsap.army.mil/sso/pages/public/resources/prevention-tools.jsp>

Summary

- Both suicide and substance misuse are prevalent in the active duty community.
- Substance misuse/abuse is a risk factor for suicide.
- Targeting at-risk populations can prevent or delay the onset of substance abuse disorders and can mitigate heavy drinking behaviors.
- An integrated prevention approach amongst medical disciplines can yield dividends that reduce the risk of suicide and maximize the health of the force.
- By engaging in substance misuse/abuse prevention specific risk factors for suicide can be lessened and protective factors can be augmented.

References

- American Psychiatric Association (APA). (2000). *Diagnostic and Statistical Manual of Mental Disorders, 4th Edition, Text Revision*. Washington, DC: APA.
- Centers of Disease Control. (2012, May 18). Retrieved from <http://www.cdc.gov/Alcohol/>.
- Department of the Army. (2012) Generating Health and Discipline in the Force.
- Department of the Army. (2008) Army Suicide Event Report (ASER) for 2007.
- Department of Defense. (2010) National Defense Authorization Action, Section 596.
- Department of Defense Medical Surveillance Monthly Report. (October 2011). Alcohol-related Diagnoses, Active Component, U.S. Armed Forces, 2001-2010. Vol. 18, No. 10, 8-13.
- Black S.A., & Gallaway, M.S. (2011). Prevalence and Risk Factors Associated With Suicides of Army soldiers 2001 – 2009. *Military Psychology*, 23, 433-451.
- Bray, R.M., Hourani, L.L., & Rae, K.L. (2003). *2002 Department of Defense Survey of Health Related Behaviors Among Military Personnel*. Research Triangle Park, NC: RTI International.
- Bray, R. M., Pemberton, M. R., Hourani, L. L., Witt, M., Olmsted, K. L. R., & Brown, J. M. (2009). *2008 Department of Defense survey of health related behaviors among active duty military personnel: A component of the Defense Lifestyle Assessment Program (DLAP)*. Research Triangle Park, NC: RTI International.
- Gordon, R. (1987). 'An operational classification of disease prevention', in Steinberg, J. A. and Silverman, M. M. (eds.), *Preventing Mental Disorders*, Rockville, MD: U.S. Department of Health and Human Services, 1987.
- Ilgen MA, Bohnert AS, & Ignacio RV. (2010). Psychiatric diagnoses and risk of suicide in veterans. *Arch Gen Psychiatry*, 67,1152-1158.
- Kessler R.C., Borges G., & Walters E.E. (1999). Prevalence of and risk factors for lifetime suicide attempts in the National Comorbidity Survey. *Arch Gen Psychiatry*. 56, 617-626.
- Miller, W.R. & Rollnick, S. (2009). Ten Things that Motivational Interviewing is not. *Behavioral and Cognitive Psychotherapy*, 27, 129-140.
- National Institute of Alcohol on Alcohol Abuse and Alcoholism (2012, May 18). Retrieved from <http://rethinkingdrinking.niaaa.nih.gov/IsYourDrinkingPatternRisky/WhatsLowRiskDrinking.asp>.
- National Institute of Alcohol on Alcohol Abuse and Alcoholism (2012, May 18). Retrieved from <http://rethinkingdrinking.niaaa.nih.gov/WhatCountsDrink/WhatsAstandardDrink.asp>.
- Ramchand, R., Miles, J., Schell, T., Jaycox, L., Marshall, G., & Tanielian, T. (2010). Prevalence and Correlates of Drinking Behaviors Among Previously Deployed Military and Matched Civilian Populations. *Military Psychology*, 23, 6 – 21.
- Substance Abuse and Mental Health Services Administration (SAMHSA). (2008). White Paper, *Substance Abuse and Suicide Prevention: Evidence and Implications*. Rockville, MD: Substance Abuse and Mental Health Services Administration.
- Substance Abuse and Mental Health Services Administration. 2011. Results from the 2010 National Survey on Drug Use and Health: Summary of National Findings, NSDUH Series H-41, HHS Publication No. (SMA) 11-4658. Rockville, MD: Substance Abuse and Mental Health Services Administration.