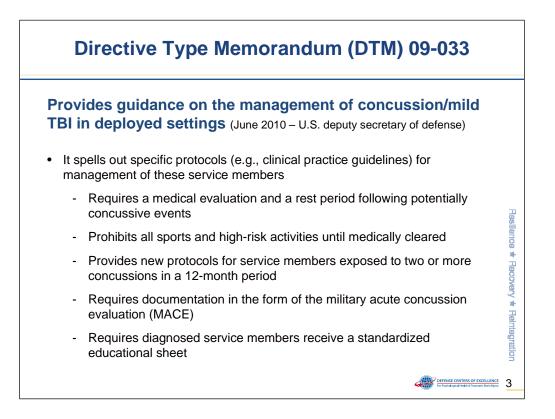
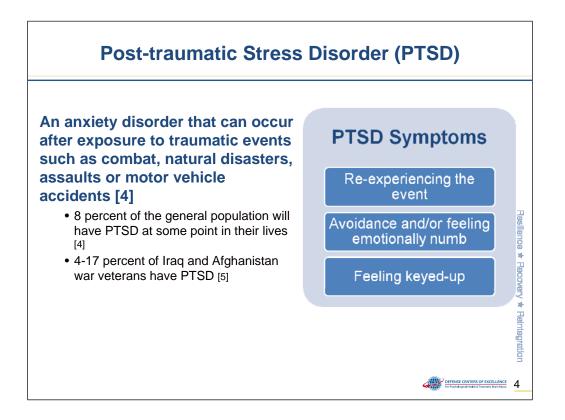


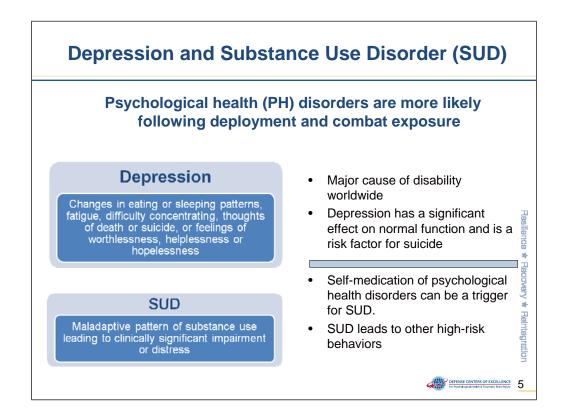
- According to the Centers for Disease Control and Prevention (CDC), a traumatic brain injury is the result of a blow or jolt to the head, or a penetrating head injury that disrupts the function of the brain.
- However, not all blows or jolts to the head result in a TBI.
- Epidemiology
  - In the general population, about 1.7 million people sustain a TBI each year, resulting in 52,000 deaths.
  - For U.S. troops deployed to Iraq or Afghanistan, about 12-20 percent experience a TBI the majority of which are mild otherwise known as concussions.
- Symptoms of mild TBI can include
  - Excessive fatigue
  - Headaches
  - Poor attention/concentration
  - Dizziness/loss of balance
  - Visual disturbances
  - Memory loss
  - Sleep disturbances
  - Irritability-emotional disturbances
- An issue of relevance to OEF and OIF is that returning service members often report exposure to repeated blasts and other concussive events.
- A history of three previous concussions increases the risk of repeat concussions three-fold. [7]
- We know that recovery is impaired with repeated concussions and that a history of repeated concussions may be linked to Alzheimer's- like memory-related diseases.
- Standardization of care for TBI patients is crucial to the services' ability to handle this significant health problem.



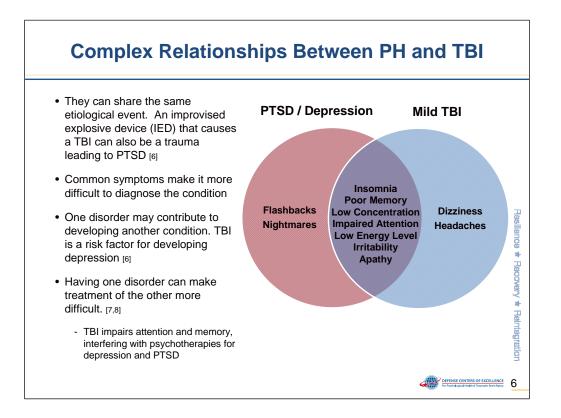
- In June 2010, the U.S. deputy secretary of defense issued directive type memorandum (DTM) 09-033 which provides guidance on managing concussions in deployed settings.
- This DTM describes an algorithm for identifying high-risk individuals who have either been exposed to potentially injurious events or are exhibiting symptoms of mild TBI. It spells out specific protocols (e.g., clinical practice guidelines) for management of these service members.
- Here we've identified some highlights:
  - Requires a medical evaluation and a rest period following potentially concussive events
  - Prohibits all sports and high-risk activities until medically cleared
  - Provides new protocols for service members exposed to two or more concussions in a 12-month period
  - Requires documentation in the form of the military acute concussion evaluation (MACE)
  - Requires that diagnosed service members receive a standardized educational sheet
- Like TBIs, psychological health conditions often have significant effects on the ability of service members to function normally at work and at home.



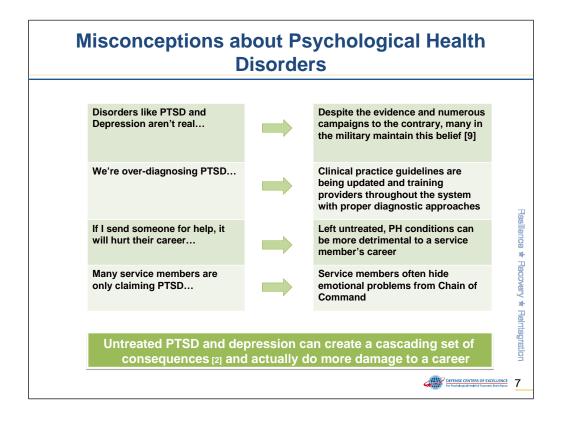
- Post-traumatic stress disorder (PTSD) is an anxiety disorder that can occur after exposure to a traumatic event such as combat, natural disasters, assaults or motor vehicle accidents.
- Epidemiology
  - About 8 percent of the general population will have PTSD at some point in their lives.
  - Estimates of PTSD in Iraq and Afghanistan war veterans range from 4-17 percent, depending on what methodology is used.
- The symptoms of PTSD are grouped into 3 categories
  - Where the person re-experiences the event in the form of:
    - Intrusive memories
    - Nightmares
    - Flashbacks
    - Strong physical reactions when near reminders
  - Shows avoidance and/or feeling emotionally numb
    - Avoiding people and places who are similar to the event or conversations about the event
    - Feeling numb
    - Detached from people
  - Feels keyed-up with symptoms as
    - Insomnia
    - Irritability
    - Poor concentration
    - · Feeling on edge
    - Hypervigilance



- Deployment and combat exposure also can increase the risk of service members developing psychological health conditions such as depression and substance use disorders, in addition to the usual risks that predispose people to such conditions.
- Depression, as known as major depressive disorder, is defined as extended periods (greater than two weeks) of depressed mood or loss of interest/pleasure in usual activities.
  - These episodes are accompanied by the following symptoms:
    - Changes in eating or sleeping patterns
    - Fatigue
    - Difficulty concentrating
    - Thoughts of death or suicide
    - Feelings of worthlessness, helplessness or hopelessness
- Depression has a significant effect on normal function and is a risk factor for suicide.
- Substance use disorder refers to the repeated misuse of alcohol or illicit, or prescription drugs in a manner that significantly impairs or endangers the user or others.
  - It can be brought about through self-medication of other psychological health conditions and can lead to other high-risk behaviors such as driving while intoxicated.



- Identifying and treating psychological health and traumatic brain injuries are complicated by the complex relationships between the disorders.
- These interrelationships include:
  - Sharing the same etiological event. For example, an improvised explosive device (IED) can cause a TBI and lead to PTSD.
  - Having many symptoms in common, making it more difficult to diagnose the condition.
  - Having one disorder may increase the risk of developing a second condition. For example, having a TBI is a risk factor for developing depression later on.
  - Having one disorder can make treatment of the other more difficult. For example, since a TBI can impair attention and memory, psychotherapies for depression and PTSD may be less effective.



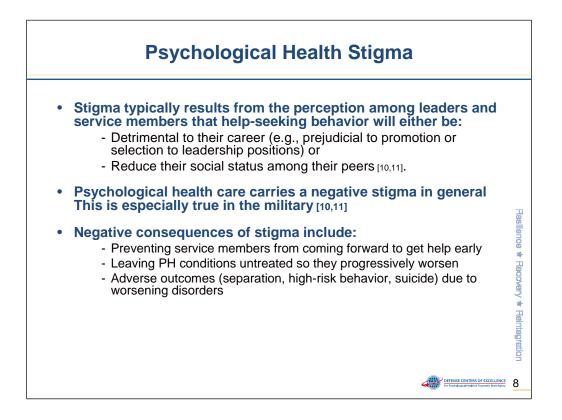
There are numerous misconceptions regarding PTSD and other PH disorders. These are some of the most common:

•Disorders like PTSD and depression aren't real – Despite numerous campaigns to affect beliefs about mental health conditions many service members still believe PTSD and related disorders aren't real.

•Many believe we're over-diagnosing PTSD– Veterans Affairs and DoD have published clinical practice guidelines and provided training on these guidelines to ensure proper diagnostic approaches are followed throughout the system.

•Many NCOs and OICs believe that sending a service member for help with a PH condition would hurt the member's career. This fear results in delays in getting the person to medical care. The reality is that if left untreated, conditions such as PTSD and depression have a cascading set of negative consequences [2] that can actually do more damage to careers, such as excessive drinking, DUIs, insubordination and spousal abuse.

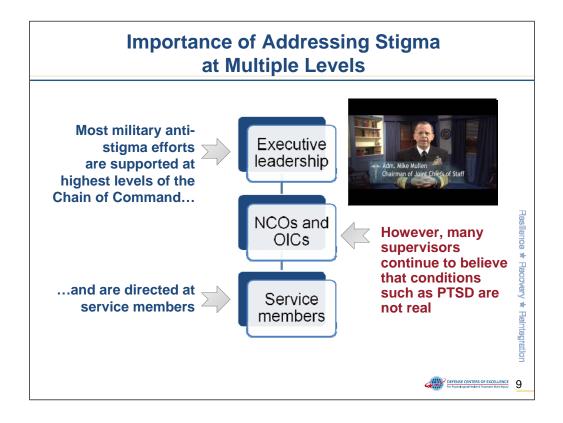
•There is also a misconception many service members are only claiming PTSD in order to get out of trouble. This belief is likely due to the following chain of events: Service members often hide emotional problems from the chain of command. As conditions worsen, members often have some incident (for example, driving under the influence (DUI)). Service members then finally disclose issues they have been having which can seem suspicious to someone at the commanding officer/executive officer (CO/XO) who only hears about these issues after such an incident has occurred.



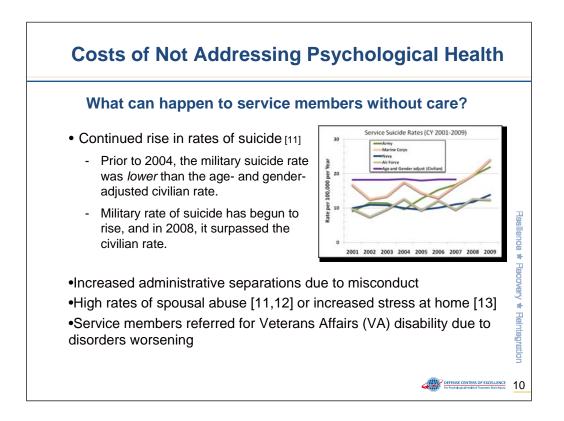
Unfortunately, because of these misconceptions, there is a strong negative stigma associated with psychological health care. While this is a problem in the general population, it is especially true in the military.

We know stigma is a reality, and it has very real consequences

- Stigma often prevents service members from coming forward to get help early
- And their untreated PH conditions can progressively worsen
- Lack of care leads to adverse outcomes
- There is some evidence that the amount of stigma is being reduced due to educational campaigns. While this is encouraging, a survey of Army personnel found that 51 percent of both officer and enlisted soldiers still believe that seeking psychological health counseling would negatively affect their careers, so we have a long way to go in order to eliminate this problem. [11]



- A number of anti-stigma efforts have strong support of executive leadership.
  - The chairman of the joint chiefs as well as other top-level DoD leaders have done public-service announcements encouraging members to come forward.
  - These efforts are typically targeted at service members.
- However, for anti-stigma efforts to be most effective, they must permeate the entire chain of command.
  - Service members who understand the need to seek treatment may still be reluctant to do so if they believe their supervisors will perceive that action negatively. The lack of belief in psychological health conditions by supervisors directly contributes to this barrier to care.
  - It is very important to address the problem of stigma at all levels of the chain of command.



- The costs of not addressing psychological health conditions are high.
- If service members aren't able or willing to get help, these are the possible results:
  - Continued rise in levels of suicides
    - Prior to 2004, the military suicide rate was *lower* than the age and gender-adjusted civilian rate. However, the military rate of suicide has begun to rise. In 2008, it surpassed the civilian rate.
    - In examining the military suicides, a consistent link is found between behavioral health diagnoses and suicide.
  - High levels of administrative separations due to misconduct (anger, impulsiveness, personality changes)
  - High rates of spousal abuse or increased stress at home as family members may be especially affected by a service member's psychological health.
    - The number of soldiers who committed spouse abuse and child abuse/neglect has increased by 177 percent in the Army in the last six years.
- High levels of service members referred for VA disability due to disorders are worsening.



- DoD has proactively initiated multiple programs to:
  - Combat the stigma of mental illness
  - Prevent suicide
  - Build a more resilient force
  - Make effective treatments for PH/TBI conditions more widely available
- To reduce stigma of help-seeking behavior:
  - The **RESPECT-Mil initiative** provides training for primary care managers to increase awareness and skill in recognizing and treating PH/TBI conditions in primary care settings. Because there is less stigma associated with treating these conditions in primary care, more members are likely to come forward for care earlier.
  - DCoE launched the **Real Warriors campaign**, which is aimed at service members to encourage them to seek help for psychological and brain injury conditions.
  - The National Center for Telehealth and Technology (T2) launched a website called Afterdeployment.org, which provides anonymous assessment and treatment information for PH/TBIrelated issues.



DoD also has multiple programs that proactively address the problem of suicide. Each military branch maintains a suicide prevention program with resources such as:

•Public service announcements and materials to raise suicide awareness.

•Surveillance forms for reporting and tracking suicides and non-fatal self injuries that will help inform initiatives for suicide prevention and handling.

•Leader's guides and training materials for suicide prevention at the unit level. Additionally, there are various resources and training materials for providers and family members.

•Defense Centers of Excellence (DCoE) and Veterans Affairs co-sponsor an annual Suicide Prevention Conference, which brings together DoD, VA and civilian experts in suicide prevention with the common goal of improving knowledge about suicide prevention.

• More than 1,000 military and other government health-care workers and officials attended the 2010 conference.



Multiple programs have been focused on making our service members more resistant to the stressors of military life. These resiliency programs are located throughout DoD.

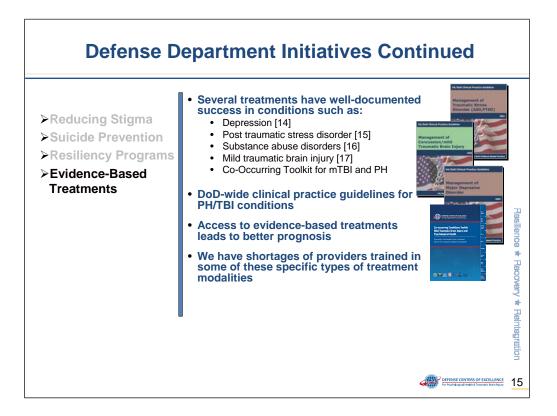
•For example, the Army has the **Army Comprehensive Soldier Fitness program**, which uses individual assessments, tailored virtual training, classroom training and embedded resilience experts to provide critical skills to soldiers and family members.

•The Marine Corps Combat Operational Stress Control (COSC) program is dedicated to maintaining a ready fighting force and to protecting, and restoring the health of Marines and their family members.

•The Navy Operational Stress Control (OSC) provides a Comprehensive approach to prevent, identify and manage the adverse effects of operational stress and stress injuries on the health and readiness of sailors.



- The **Air Force's Landing Gear (AFLG) program** standardizes the delivery of pre-exposure preparation training for deploying airmen and the mental health component of reintegration education for returning airmen.
- The **Yellow Ribbon Reintegration Program (YRRP)** was designed to benefit National Guard and reserve members, and their families by helping to give them access to necessary support to help service members reintegrate following an operational deployment.



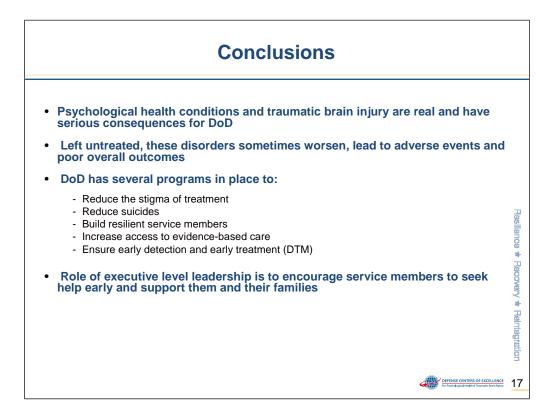
- Several treatments have well-documented success in conditions such as:
  - Depression [14]
  - Post-traumatic stress disorder [15]
  - Substance abuse disorders [16]
  - Mild traumatic brain injury [17]
  - And even guidance for when a patient has both a mild TBI and then one of these PH disorders
- We have DoD-wide clinical practice guidelines for PH/TBI conditions to improve the care for our service members.
- We know that service members who have access to evidencebased treatments have a better prognosis for full recovery.
- Unfortunately, we have shortages of providers trained in some of these specific types of treatment modalities.



DoD is highly invested in promoting evidence-based care. We've already mentioned Veterans Affairs and DoD guidelines which help providers treat common PH conditions and TBI in an evidence–based manner.

DoD also has created several other initiatives to improve care such as:

- The **Center for Deployment Psychology (CDP**), which is a DCoE component center whose mission is to provide training to mental health providers in evidence-based treatments for PTSD, including training in prolonged exposure therapy and cognitive processing therapy.
- The **Defense and Veterans Brain Injury Center (DVBIC**) which is a DCoE component center that provides TBI clinical tools, provider training and various other resources to improve care for TBI.
- The **Deployment Health Clinical Center (DHCC)** is a DCoE component center located at WRAMC that provides a wide range of services for deployment–related issues, including evidence-based treatments for PTSD.
- The National Intrepid Center of Excellence (NICoE) is a state of the art facility custom-built to provide cutting-edge assessment and treatment planning for PH-TBI conditions.



In conclusion, we've reviewed that PH conditions and TBI are real, and have serious consequences for DoD.

•If left untreated, these disorders can worsen and lead to adverse events, making it more difficult for service members to recover.

•In response to these issues, the DoD has several programs in place that seek to:

- Reduce the stigma of getting treatment for these conditions
- Reduce suicides
- Foster resiliency in service members
- Increase the level of access to evidence based care for these conditions, and
- Ensure early detection and early treatment of these conditions

•The role of executive-level leadership is to encourage service members to seek help early and support them and their families.



