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STATEMENT BY

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Mr. Chairman and Members of the Committee, thank you for the opportunity to discuss the Army's research efforts to improve the mental health and well-being of our service members returning from combat duty in Iraq and Afghanistan, including our studies on post-traumatic stress disorder (PTSD). I am Colonel Charles W. Hoge, M.D., director of psychiatric research at Walter Reed Army Institute of Research. Since my testimony to the House Veterans' Affairs Committee in July 2005, my team has continued to assess the impact of combat on the mental health of service members. By and large our findings remain consistent with what I presented last year. I will briefly review findings from four sources of data on the percent of service members identified who might need mental health support after transitioning home from combat. In addition I will discuss key initiatives to reduce stigma and improve access to care for those with deployment related mental health concerns. My comments focus on Army data and initiatives among Soldiers involved in Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF) deployments.

The first set of data on the mental health impact of OIF is from the Walter Reed Army Institute of Research Land Combat Study. Initial findings from this study were published in the New England Journal of Medicine in July 2004, and additional results were presented to this committee last year. The study involves anonymous surveys using standardized clinical instruments for PTSD and other mental health conditions administered to Soldiers from multiple brigade combat teams before, during, or after returning from deployment. This study has shown that overall 15-17% of Soldiers from combat units screen positive for PTSD when surveyed 3-12 months after returning from deployment to Iraq. When we added one additional question related to functional impairment at the end of the 17 question PTSD scale, we found that 10% of Soldiers surveyed 12 months after deployment reported that PTSD symptoms have made it very

difficult to do their work, take care of things at home, or get along with other people. The inclusion of screens for major depression and generalized anxiety raise the rates of screening positive to approximately 20%; 16% of Soldiers surveyed 12 months after returning from Iraq screened positive for PTSD, depression, or anxiety and reported that there was functional impairment at the "very difficult" level.

The second major source of data is from the Post-Deployment Health Assessment (PDHA), which all service members undergo at the time that they return from deployment. The PDHA involves a brief self-administered screening questionnaire that is then reviewed with a health care provider to determine if there are any deployment-related health concerns that require referral or follow-up. In March of this year we published data in the Journal of the American Medical Association (JAMA) from over 300,000 PDHA assessments conducted among Soldiers returning from OIF1. In brief, we found that 19% of Soldiers returning from Iraq reported some sort of mental health concern, compared with 11% of Soldiers returning from Afghanistan and 9% of Soldiers returning from other deployment locations. The PDHA includes a brief 4-question screen for PTSD; 10% of Soldiers who returned from Iraq endorsed 2 or more of these 4 questions, and 5% endorsed 3 or more of these questions. The rate of endorsing these questions increased with increasing deployment length among Soldiers involved in OIF1 when the deployment length of Army units varied widely; 8% of Soldiers deployed for less than 6 months endorsed 2 or more of the 4 PTSD questions compared with 11% of those deployed 6-11 months and 13% for 12 or more months. Overall, 4% of Soldiers who returned from Iraq were referred for further mental health evaluation or treatment.

The third source of data is from the Post-Deployment Health Reassessment, or PDHRA. The PDHRA was initiated Department of Defense (DoD)-wide after it was recognized that

service members may not express mental health concerns until several months after returning home from deployment. The PDHRA is intended to be administered at 3-6 months post-deployment. Like the PDHA, it involves a self-administered questionnaire that is then reviewed by a health professional. We have analyzed the results of over 70,000 PDHRA assessments from Soldiers who have returned from Iraq (n=64,000), Afghanistan (n=8,000), or other deployment locations (n=1,400). As predicted, the PDHRA has shown higher rates of mental health concerns than the PDHA. Overall, 35% of Soldiers who returned from Iraq reported some sort of mental health concern on at least one of the general screening questions related to PTSD, depression, alcohol use, relationship / interpersonal concerns, or suicidal ideation. This compared with 27% after return from Afghanistan and 25% after return from other deployment locations. It is important to recognize that it is normal to experience symptoms related to combat and deployment, and many individuals who express concerns do not have a mental disorder or need referral for further care. Overall, 11% of Soldiers who completed a PDHRA after return from Iraq were referred for further follow-up with a mental health professional, compared with 8% among those who returned from Afghanistan and 7% after other deployment locations. Military One Source offers an additional option for receiving confidential care outside of the military health care system, particularly for relationship problems or life stressors, and is listed as one possible source of referral on the PDHRA. When Military One Source is included, the referral rate reported on the PDHRA among Soldiers who had returned from OIF was 18%. Among the 64,000 PDHRA assessments from Soldiers who returned from OIF, 35% reported any mental health concern; 19% endorsed 2 or more of the 4 PTSD questions, 11% endorsed 3 or more of the 4 PTSD questions, 11% reported concerns about depression, 13% felt that they had used

alcohol more than they meant to or wanted to cut down on their drinking, 16% reported relationship concerns, and 1% reported suicidal thoughts.

Another important finding from the PDHRA assessments pertains to differences in endorsement rates of mental health concerns and referral rates among Active Component (AC) and Reserve Component (RC) Soldiers (including National Guard and Reservists). Previous data from the PDHA and the Mental Health Advisory Team assessments in Iraq indicated that AC and RC Soldiers had comparable rates of mental health concerns during and shortly after deployment. In contrast, the PDHRA data indicates that rates of mental health concerns and referral rates are higher among Soldiers from RC units than they are among Soldiers from AC units at 3-6 months post-deployment. Thirty-two percent of AC Soldiers reported a mental health concern on the PDHRA compared with 41% among Reserve Component Soldiers. Nine percent of AC Soldiers endorsed 3 or more of the 4 PTSD questions, compared with 15% of RC Soldiers. Nine percent of AC Soldiers had a referral to mental health noted on the PDHRA compared with 16% for RC Soldiers. With the addition of Military One-Source, total rates of referral were disproportionately higher among RC Soldiers (33%) compared with 13% among AC Soldiers. It is not known why the rates are higher among RC than among AC Soldiers, but it is important not to misinterpret these data as suggesting that RC Soldiers are in some way not as mentally healthy as AC Soldiers. It has been shown that RC and AC Soldiers have comparable rates of mental health concerns during and shortly after deployment, and the differences are observed only several months after return home. Potential factors that could relate to these differences that require further study include demographic differences among those who have completed the PDHRA or concerns about ongoing access to health care among RC Soldiers after they have been home for some time period.

The fourth source of data is from the Army's health care system including the number of visits to mental health among Soldiers who returned from deployment. These data showed that 35% of Soldiers who returned from Iraq accessed military mental health services at some time in the year after return, most often in the first two months. This includes any care by a mental health professional for evaluation, prevention, and treatment services; 12% of all Soldiers who returned from OIF1 were diagnosed with a mental health problem in the first year after return (JAMA, March 1, 2006) (or about one-third of those who utilized mental health services). The diagnoses for the remainder of those who accessed mental health care was not specific enough to measure how many of the visits involved treatment of PTSD or another defined mental health problem. It is not yet known how many service members who access care will go on to need longer term treatment, although some data are now becoming available from the Department of Veterans Affairs. One important goal of the DoD efforts involving earlier identification and intervention is to reduce the longer term need for mental health treatment.

Among Soldiers referred for mental health care from the PDHA, 50-60% are documented to receive medical services in a military treatment facility. It is likely that a higher percentage of Soldiers who are referred receive care through sources that are not captured in the electronic medical records system, such as chaplains, Military One Source, and family assistance programs.

Rates of mental health concerns and PTSD are very similar among Soldiers who have completed a PDHRA or Land Combat Survey after their second deployment to Iraq compared with Soldiers who completed these assessments after their first deployment to Iraq. These data suggest that multiple deployments to Iraq do not necessarily result in higher rates of PTSD compared with a single deployment. However, these data do not rule out the possibility that there are cumulative effects of multiple deployments because Soldiers are more likely to leave

military service after their first deployment to Iraq than other deployment locations, and Soldiers who report mental health concerns after their first deployment are also more likely to leave military service than Soldiers who don't report mental health problems.

In summary, it is normal to experience symptoms related to combat experiences, and most returning Soldiers make a successful transition from deployment. Having symptoms is not the same thing as being diagnosed with a mental disorder. There are now robust data from different sources that indicate that approximately 10-15% of Soldiers develop PTSD after deployment to Iraq and another 10% have significant symptoms of PTSD, depression, or anxiety and may benefit from care. Alcohol misuse and relationship problems add to these rates. Conditions often overlap.

Although there has been an increase in use of mental health services soon after returning from combat, surveys indicate that many Soldiers with mental health issues still don't seek care, and many Soldiers perceive that they will be stigmatized if they do. Army Commanders and medical leaders are engaged and proactive in ensuring the well-being of unit members and addressing mental health issues throughout the deployment cycle. A key strategy is to encourage evaluation and treatment for deployment-related mental health concerns early before they become severe, chronic, or interfere with work or social functioning. The PDHA and PDHRA are designed to facilitate access to care for deployment-related concerns, including mental health issues. The data indicate that the expansion of the post-deployment assessment program to include the PDHRA was warranted due to the higher rates of mental health concerns 3-6 months post-deployment, as well as the recognition of potential RC and AC differences that were not evident from earlier data.

Another strategy is aimed at training Soldiers and leaders to improve their recognition of mental health issues, reduce the perception that they will be stigmatized if they receive help, encourage help-seeking when necessary, and ensure successful transitions throughout the deployment cycle. The Walter Reed Army Institute of Research has developed a training program with these goals in mind called "BATTLEMIND". Prior to this war there were no empirically validated training strategies to mitigate combat-related mental health problems, and we have been evaluating this post-deployment training using scientifically rigorous methods with good initial results. This new risk communication strategy was developed based on lessons learned from the Land Combat Study and other efforts. It is a strengths-based approach that highlights the skills that helped Soldiers survive in combat instead of focusing on the negative effects of combat. Two post-deployment training modules have been developed, including one version that involves video vignettes, that emphasizes safety and personal relationships, normalizing combat-related mental health symptoms, and teaching Soldiers to look out for each other's mental health. The acronym "BATTLEMIND" identifies ten combat skills that if adapted will facilitate the transition home. An example is the concept of how Soldiers who have high tactical and situational awareness in the operational environment may experience hypervigilence when they get home. The post-deployment BATTLEMIND training has been incorporated into the Army Deployment Cycle Support Program, and is being utilized at Department of Veterans Affairs Vet Centers and other settings. We have also been developing pre-deployment resiliency training for leaders and Soldiers preparing to deploy to combat using the same BATTLEMIND training principals, as well as training for spouses of Soldiers involved in combat deployments. Further information on these training materials can be obtained from the WRAIR website at www.battlemind.org.

Although we have discovered a lot in the last three years about how combat is affecting the mental health of our Soldiers and have developed new training modalities, there are gaps in research. Specifically, research is limited in the areas of establishing standardized treatment strategies for combat-related PTSD (such as medication regimens, psychotherapy modalities specific to Soldiers' experiences), long-term longitudinal studies, and studies of the impact of deployments on military family members.

Thank you very much for your continued interest in our research and your continued support for our veterans, both those who have left active duty and those who continue to wear the uniform. I look forward to answering your questions.