ANNEX A

WALTER REED ARMY INSTITUTE OF RESEARCH (WRAIR) REPORT ON THE MENTAL HEALTH AND WELL-BEING OF SOLDIERS IN OPERATION IRAQI FREEDOM (OIF-II)

Data for this report were collected as part of the Mental Health Advisory Team (MHAT-II) Mission to Iraq and Kuwait, August through October 2004. The data were collected under an approved protocol of the Walter Reed Army Institute of Research (WRAIR), Medical Research and Materiel Command, Washington D.C.

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Chartered by:
The U.S. Army Surgeon General

This is an annex to the Operation Iraqi Freedom (OIF-II) MHAT-II Report addressing the mental health and well-being of Soldiers deployed to OIF-II. The findings were obtained by means of a survey (Soldier Health and Well-being Survey) and focus group interviews with junior enlisted, noncommissioned officers (NCOs), and officers conducted throughout Iraq and Kuwait.

The views expressed in this report are those of the authors and do not necessarily represent the official policy or position of the Department of Defense (DoD), the U.S. Army, or the Office of The Surgeon General (OTSG).

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EXECUTIVE SUMMARY

The objective of the Soldier Survey was to assess the health and well-being of Soldiers (junior enlisted, noncommissioned officers (NCOs), and officers) deployed to Kuwait and Iraq during Operation Iraqi Freedom (OIF-II). A standardized survey instrument was administered to 2,064 Soldiers stationed at various base camps throughout Kuwait and Iraq from August through October 2004. The data from this survey were compared with data collected using a similar theatre-wide survey conducted under the same protocol during the same months in 2003 (see the Mental Health Advisory Team (MHAT) 2003 report). In addition, the survey was supplemented by focus group interviews. Initial findings from this study were provided to the Multi-National Corps-Iraq (MNC-I), Multi-National Force-Iraq (MNF-I), and Combined Forces Land Combat Command (CFLCC) leadership mid-October 2004.

Key Findings

1. Like OIF-I Soldiers, OIF-II Soldiers are experiencing numerous combat stressors. However, noncombat deployment stressors related to quality of life have shown considerable improvement since OIF-I. Deployment length remains a top concern for OIF-II Soldiers.

2. Fifty-four percent of OIF-II Soldiers reported their unit morale as low or very low. However, unit morale was significantly higher in OIF-II compared with OIF-I, when 72% of Soldiers reported low or very low unit morale.

3. Mental health and well-being improved from OIF-I to OIF-II, reflected by a lower percentage of Soldiers who screened positive for a mental health problem in OIF-II compared with OIF-I (13% vs. 18%, respectively). Acute or posttraumatic stress symptoms remain the top mental health concern, affecting at least 10% of OIF-II Soldiers.

4. Soldiers in transportation and nonmedical combat service support (CSS) National Guard and Reserve units had significantly higher rates of mental health problems and lower perceptions of combat readiness and training than Soldiers in other units.

5. Forty percent of Soldiers with mental health problems reported receiving professional help during the deployment. This was significantly higher than the 29% of Soldiers with mental health problems who received professional help in OIF-I.

6. Stigma and organizational barriers to receiving care remain concerns for Soldiers. Fifty-three percent of Soldiers with mental health problems perceived that their leaders would treat them differently, 54% that they would be seen as weak, 39% that it would be difficult getting time off work, and 20% that it was too difficult to get to the mental health specialist's location.

7. Forty-one percent of Soldiers surveyed reported that they had received adequate training in handling the stressors of deployment. This was significantly higher than the 29% percent of Soldiers who reported receiving adequate training during OIF-I.

8. Marital issues, family separation, and support of families remain top concerns for OIF Soldiers.

Key Recommendations

1. Continue to improve awareness of mental health issues, access to care, and efforts to reduce stigma. Considerations include:

a. Emphasize the role of leaders at all levels in facilitating recognition of mental health concerns, training in handling the stresses of deployment, and encouraging the use of available resources.

b. Assure that there is accessible mental health support to all units throughout the theater.

c. Where feasible, integrate mental health care with primary care in troop medical clinics/battalion aid stations so that mental health care becomes routine in these settings.

2. Develop and assess the effectiveness of standardized training modules to prepare Soldiers to handle the psychological demands of deployment and combat-related stressors throughout the deployment cycle. Train leaders and Soldiers that stress symptoms and other mental health problems are common and expected reactions to combat, that mental health interventions are best applied as early as possible, and that the Soldiers are informed early of the ways in which they can get help when they need it.

3. Continuously assess how well the behavioral health needs of families are being met in the rear. Establish clinical behavioral health support to family readiness groups (FRGs) and rear detachment commanders at least at the brigade level to address family issues and help coordinate/facilitate access to resources.

4. Reevaluate if levels of combat skills training are sufficient for transportation and support personnel from National Guard and Reserve units in the current operational environment, since confidence in combat skills likely builds resiliency to the negative effects of combat stressors.

5. Establish/maintain deployment policies that support Soldier morale and well-being across various forward operating bases (FOBs).

SURVEY METHODS

The OIF-II Soldier Health and Well-being Survey was conducted for MHAT--II under an approved protocol of the Walter Reed Army Institute of Research (WRAIR) (PIs: COL (b)(6)-2 and LTC (b)(6)-2 Walter Reed Army Institute of Research, Silver Spring, MD). The survey is part of a larger effort involving pre- and post-deployment surveys of Soldiers from XVIII ABN Corps, USASOC, and Marine Expeditionary Forces (see Hoge, et. al., New England Journal of Medicine, 2004). The survey was designed as a rapid assessment of the health and well-being of the Soldiers deployed during OIF-II. Details of the survey instrument are included in Appendix 1.

The MHAT traveled throughout Kuwait (CFLCC) and Iraq (MNC-I) and administered surveys and conducted focus groups between 27 August and 3 October 2004. In Iraq, line units from brigade combat teams (BCTs) and other units were targeted for assessment at various base camps/FOBs throughout the country. In Kuwait the survey also targeted battalion level units more likely to experience combat and operational stress, including transportation, infantry, signal, and other units. Sampling included combat arms, combat support, and CSS personnel. Combat support hospitals (CSHs) were included in both Iraq and Kuwait. Samples of approximately 20 to 25 Soldiers were drawn at the company level, based on mission availability for list of unit, locations, and types of units sampled (see Tables 1 through 3.). Signed informed consent was obtained from all participants prior to survey administration per the WRAIR protocol. Participants were briefed on the purpose of the survey and the fact that participation was voluntary. The surveys were conducted anonymously. More than 99% of the Soldiers briefed agreed to complete the survey.

Quality Control of Data

Scanning, data entry, and quality control of the data were conducted in Iraq. Data from the surveys were scanned into a database using the Scantools program. A complete quality assurance check was conducted on a random selection of approximately 5% of all surveys. Out of 2,064 surveys collected, 107 were quality checked. All 328 variables on these surveys were directly compared between the electronic database and the paper surveys (35,096 fields examined). Results revealed that there were a total of 85 errors in the 35,096 fields, in no particular pattern (overall error rate 0.2422%). Of those errors, 0.0513% were subject errors (e.g. double marks, marks too light), 0.1225% were scanner errors, and 0.0684% were hand entry errors (for fields where hand entry was required).

Comparison Populations

Cross-sectional data collected in Iraq and Kuwait during OIF-I (August-September 2003) (n=756) under the same WRAIR protocol were included for comparison (see MHAT report, 2003). Baseline data collected before deployment (n=2,530) were also included in some comparisons. These pre-deployment data were obtained from a

brigade of the (b)(2)-2 Division just prior to deployment to OIF-I (Hoge, et. al. 2004).

Study Sample

Participants were 2,064 U.S. Army Soldiers from different units serving in OIF-II (see Tables 1 through 3). The OIF-II sample was very similar to the OIF-I sample except that there was a higher proportion of National Guard and Reserve Soldiers resulting in a somewhat older sample (Table 4). The demographic distribution of the OIF-II sample differed somewhat from the demographics of the OIF theater in general (Table 4). Reserve and National Guard units and women were over-sampled, which assured adequate representation for subgroup analyses.

Sample Size/Analysis/Statistics

Based on the size of the U.S. Army population serving in OIF-II, a sample size of 2,000 is more than adequate to detect most conditions that occur at a predicted prevalence of 5-10% (for example the prevalence of screening positive for depression or posttraumatic stress disorder (PTSD). For example, 202 is the minimum number of completed surveys necessary to detect a condition with a prevalence of 5% (range no more than 2-8%) at the 95% confidence level. The 2,064 surveys, therefore, provide ample numbers to look at important subgroups within the population, for example by component (Active, Reserve, and National Guard), as well as males and females, Kuwait and Iraq, and even to a limited extent within unit types (e.g. support units compared with combat units). Analysis of data was conducted with SPSS version 12. Chi-squares and ANOVAs were used to test for significance, where relevant.

SURVEY RESULTS

FINDING #1: Like OIF-I Soldiers, OIF-II Soldiers are experiencing numerous combat stressors. However, noncombat deployment stressors related to quality of life have shown considerable improvement since OIF-I. Deployment length remains a top concern for OIF-II Soldiers.

Combat Stressors

Operation Iraqi Freedom (OIF-II) Soldiers reported experiencing numerous combat stressors. Selected experiences are shown in Figure 1. Operation Iraqi Freedom (OIF-II) Soldiers reported higher rates of incoming rocket and mortar attacks than OIF-I Soldiers. Operation Iraqi Freedom (OIF-II) Soldiers also experienced the escalation of IED attacks, a question that was not asked on the OIF-I survey. However, combat experiences thought to be more likely to be associated with mental health problems, such as seeing dead or seriously injured Americans, handling human remains, or killing an enemy combatant were all somewhat higher during the initial ground combat in OIF-I than in OIF-II. Among Soldiers who experienced firefights, the frequency was greater in

OIF-I than during OIF-II (median number of firefights during deployment that OIF-I Soldiers reported was 3 compared with 2 for OIF-II Soldiers).

Active, Reserve, and National Guard Soldiers, overall, had comparable levels of combat experiences in OIF-II. For example, during OIF-II the percent of Soldiers surveyed in Iraq who reported receiving small arms fire was 60% for Active Component Soldiers, 48% for Reserve Soldiers, and 54% for National Guard Soldiers. The percent of Soldiers surveyed in Iraq in OIF-II who reported receiving incoming rocket, artillery, or mortar fire was 93% for Active Component Soldiers, 96% for Reserve Soldiers, and 89% for National Guard Soldiers. The percent of Soldiers surveyed in Iraq in OIF-II who reported having a team member become a casualty was 57% for Active Component Soldiers, 58% for Reserve Soldiers, and 47% for National Guard Soldiers.

Noncombat Deployment Stressors/Quality of Life Measures

Many of the concerns that were endorsed at a high rate during OIF-I showed considerable reductions during OIF-II (Figure 1). In OIF-I, the most frequently reported noncombat stressor was uncertain re-deployment date, with 87% of Soldiers reporting high or very high trouble or concern. In OIF-II, this item was endorsed at that level by only 41% of Soldiers. Many quality of life concerns such as lack of privacy, lack of personal space, and difficulties communicating back home were reported much less frequently in OIF-II than in OIF-I. There was also a decrease in the percent of Soldiers reporting not having adequate equipment or repair parts. Long deployment length was the most commonly reported noncombat stressor; 52% of Soldiers reported high or very high concern about this issue, 16% reported moderate concern, and 32% reported low or very low concern. See also the section on morale, next page, for information obtained from focus groups.

FINDING #2: Fifty-four percent of OIF-II Soldiers reported their unit morale as low or very low. However, unit morale was significantly higher in OIF-II compared with OIF-I, when 72% of Soldiers reported low or very low unit morale.

Soldiers were asked to rate their personal and unit morale on a five-point scale from very low (score 1) to very high (score 5). The percent of Soldiers reporting low or very low unit morale was 54%, with 9% reporting high or very high unit morale, and the remainder reporting at the medium level; although 54% of Soldiers reported their unit morale as low or very low this was improved from the OIF-I survey, when 72% of Soldiers reported low or very low unit morale. The percent of Soldiers reporting low or very low personal morale decreased from 52% in OIF-I to 36% in OIF-II. Mean personal morale increased from 2.41 to 2.78 ($p<.001$) and unit morale increased from 1.95 to 2.32 ($p<.001$). There are very limited normative data on these morale indices for a sustained combat environment. Mean cohesion scores remained largely unchanged between OIF-I and OIF-II (2.98 and 3.10, respectively). Focus group data provided additional information relevant to Soldier and unit morale (see pages A11-A12).

FINDING #3: Mental health and well-being improved from OIF-I to OIF-II, reflected by a lower percentage of Soldiers who screened positive for a mental health

problem in OIF-II compared with OIF-I (13% vs. 18%, respectively). Acute or posttraumatic stress symptoms remain the top mental health concern, affecting at least 10% of OIF-II Soldiers.

Mental health concerns are prevalent among OIF-II Soldiers in the combat zone, particularly symptoms of acute stress/PTSD resulting from combat experiences (also see Hoge, et. al, New England J of Medicine, 2004). An encouraging finding is that OIF-II Soldiers reported a lower prevalence of mental health problems compared with OIF-I Soldiers.

In OIF-II, 17% of Soldiers reported currently experiencing a moderate or severe stress, emotional, alcohol, or family problem, compared with 23% in OIF-I ($p<.001$) and 14% ($p<.001$) in a pre-deployment sample. Overall, 11% of OIF-II Soldiers reported on the anonymous survey that they were interested in receiving help for a stress, emotional, alcohol, or family problem, compared with 15% in OIF-I and 9% pre-deployment.

Using standardized clinical screening instruments, 13% of OIF-II Soldiers screened positive for acute stress/PTSD, depression, or anxiety (Figure 1) using a clinical definition that required the subjects to meet the Diagnostic and Statistic Manual for Psychiatric Disorders (DSM)-4 criteria <u>and</u> report a high number of symptoms or impairment in occupational or social functioning (see Hoge, et. al., N Engl J Med 2004 for details of the study design and scales used). The 13% in OIF-II compared with 18% in OIF-I ($p<.001$). Acute stress/PTSD was the most prevalent condition (10%) compared with 15% in OIF-I ($p<.001$). Differences in rates of depression and anxiety for OIF-I and OIF-II were not statistically significant. Note that the National Center for PTSD checklist was used to measure PTSD symptoms, but in the combat zone, these symptoms would frequently be considered part of an acute stress or combat stress reaction. Overall, there were no statistically significant differences in rates of screening positive by component (Active, Reserve, or National Guard); 13% of Active Component Soldiers screened positive for a mental health problem compared with 12% of National Guard Soldiers and 15% of Reserve Soldiers. There were also no significant differences in the rates of mental health problems between male and female Soldiers (13% for males, 12% for females for any mental health problem). Soldiers in Kuwait had slightly lower rates of any mental health problem than Soldiers in Iraq (11% vs. 13% respectively). However, the distribution of diagnoses differed somewhat, with only 7% of Soldiers in Kuwait reporting acute stress/PTSD compared with 11% in Iraq, likely a reflection of the less hostile environment in Kuwait than in Iraq.

Since the OIF-I and OIF-II samples differed in terms of unit type, component, age, and the proportion of the sample that was surveyed in Kuwait, the prevalence rates of any mental health problem and acute stress/ PTSD in the OIF-II sample were adjusted to reflect the distribution of these factors seen in the OIF-I sample. Separate adjusted rates were calculated for Kuwait and Iraq, as well as both together. (No adjustment was necessary for gender, since rates of mental health problems were comparable between males and females.) This analysis showed that there were minimal effects in adjusting the rates. For example, the unadjusted prevalence of any mental health problem in the

entire OIF-II sample was 12.6%. After adjusting this to the distribution of the units sampled during OIF-I, the prevalence was 12.2%. Adjusting for age changed the rate to 12.8, and adjusting for component (Active, Reserve, National Guard) changed the rate to 13.0. Separate adjustments for Kuwait and Iraq also did not result in appreciable changes in the prevalence rates. These analyses supported the conclusion that the observed differences in the prevalence of mental health problems between OIF-I and OIF-II were not due to sampling biases.

It is not completely understood why mental health concerns showed improvement in OIF-II compared with OIF-I. Factors that may have contributed to the observed improvements in OIF-II include less frequent or intense combat experiences, markedly improved quality of life (MWR, air-conditioning, communication home, food, showers, etc.), increased access to mental health services, or improved training in handling the stresses of deployment. See discussion section of this annex for further comment on this topic.

FINDING #4: Soldiers in transportation and nonmedical CSS National Guard and Reserve units had significantly higher rates of mental health problems and lower perceptions of combat readiness and training than Soldiers in other units.

Comparisons of rates of mental health problems by the type of unit revealed some important differences (see Figure 3 for rates overall in the entire Iraq-Kuwait theater). Overall, for the entire survey sample, a higher rate of screening positive for depression, anxiety, or acute stress/PTSD was observed among the transportation and support personnel (e.g. Forward Support Battalion, Combat Support Battalion units) compared with Soldiers in combat and other units; 17% of Soldiers from transportation and support units screened positive for one of these conditions compared with 13-14% of Soldiers from combat arms units, and 8% of all other unit types ($p=.002$).

Further analysis was conducted using only the Iraq sample, which was at higher risk for combat-related mental health problems than the Kuwait sample. Overall in the Iraq sample, transportation and support units had a prevalence rate of any mental health problem of 20% compared with 13% for combat units ($p=.01$) and 9% for other unit types ($p<.001$). These differences were largely due to differences in the prevalence of acute stress/PTSD; the prevalence of acute stress/PTSD was 19% for transportation and support units compared with 11% for combat units ($p=.002$), and 7% for other unit types ($p<.001$). The higher rate of acute stress/PTSD among support units compared with other unit types was limited to National Guard and Reserve units (see Table 5). National Guard support personnel experienced twice the rate of PTSD as personnel from National Guard combat units. Reserve support personnel also had significantly higher rates than other reserve units or active component support units.

Although support and transport units had significantly higher rates of PTSD than combat arms units overall, they reported significantly <u>lower</u> rates of most combat experiences, suggesting that there may be differences in resilience to combat stressors among the support units. There were no significant differences in the levels of adverse childhood

experiences or non-deployment related traumatic experiences to explain the difference in prevalence rates. The survey also asked Soldiers general questions about their perceptions of combat readiness, including confidence in their unit's ability to perform the mission, whether their unit would do/did an excellent job in combat, and an assessment of level of training. An important finding was that support personnel and transporters reported significantly lower ratings in all these areas compared with other all other Soldiers in the sample. For the entire Iraq and Kuwait sample, among Soldiers from transportation and support units, 55% reported confidence in the unit's ability to perform the mission, compared with 62% of all other units ($p=.01$); 38% of Soldiers from transportation and support units agreed that their unit would do/did an excellent job in combat compared with 55% of Soldiers from other units ($p<.001$); 35% from transportation and support units agreed that the level of training was high compared with 47% from other units ($p<.001$). These differences were particularly pronounced in National Guard units in Iraq, especially for the question pertaining to perception of level of combat training (Table 6). Lower ratings of confidence, combat readiness, and training were all statistically correlated with higher rates of screening positive for mental health problems, particularly acute stress/PTSD, suggesting that perceptions of training, confidence, and combat readiness may buffer the effects of combat stressors.
FINDING #5. Forty percent of Soldiers with mental health problems reported receiving professional help during the deployment. This was significantly higher than the 29% of Soldiers with mental health problems who received professional help in OIF-I.

Among the Soldiers who screened positive for depression, anxiety, or PTSD, 40% reported receiving help at any time during the deployment from a mental health/combat stress control professional, general medical doctor, or chaplain. However, this represented an increase from OIF-I, when only 29% of Soldiers with mental health problems received treatment, and was statistically significant ($p=.03$). Increases were observed in receiving services from all types of professionals, with chaplains most frequently consulted. Twenty-two percent of Soldiers who screened positive for a mental health problem in OIF-I sought help from chaplains compared with 28% in OIF-II. The figures for a mental health/combat stress professional was 12% for OIF-I and 19% for OIF-II, GMO or medic 9% for OIF-I and 13% for OIF-II. Among those who received mental health services, 69% reported being satisfied with the treatment, and 31% reported being dissatisfied. (There was no neutral category to this question, and Soldiers who marked "NA" were excluded.)

FINDING #6: Stigma and organizational barriers to receiving care remain concerns for Soldiers; 53% of Soldiers with mental health problems perceived that they would be treated differently by their leaders and 54% that they would be seen as weak; 39% of Soldiers with mental health problems reported that it would be difficult getting time off work, and 20% that it was too difficult to get to the mental health specialist's location.

Stigma and organizational barriers to care remain a concern for Soldiers in need of mental health services. Although there was an increase in use of mental health services among Soldiers with mental health problems from OIF-I to OIF-II, there was no

evidence of changes in perceptions of stigma and other barriers among these Soldiers between OIF-I and OIF-II. Among Soldiers who screened positive for depression, anxiety, or PTSD, 53% reported that their unit leadership might treat them differently, and 54% reported that they would be seen as weak. Organizational barriers to care, which leaders can potentially influence, included concerns that it would be too difficult to get to the location of behavioral health services, reported by 20% of Soldiers with mental health problems, difficulty getting time off from work (39%), and not knowing where to go for help (22%). These findings were almost identical to findings from OIF-I.

FINDING #7. Forty-one percent of Soldiers surveyed reported that they had received adequate training in handling the stressors of deployment. However, this was significantly higher than the 29% percent of Soldiers who reported receiving adequate training during OIF-I.

Overall, 77% of Soldiers in OIF-II reported that they had received suicide prevention training in the past year, and 69% reported that they had received training in handling the stresses of deployment and/or combat. Forty-eight percent of OIF-II Soldiers surveyed reported that the training in identifying Soldiers at risk for suicide was sufficient (not different from the 45% who endorsed this in OIF-I). Although only 41% of Soldiers reported that the training in managing the stress of deployment was adequate, this rate was higher than the rate of 29% reported by OIF-I Soldiers ($p<.001$). Soldiers who indicated that they had received adequate training in handling the stresses of deployment reported significantly higher confidence in their ability to help Soldiers get assistance for a mental health problem ($p<.001$). Overall, 27% of all Soldiers surveyed in OIF-II indicated that they had helped a fellow Soldier get professional help for a mental health problem, a question that was not asked in a comparable manner during the OIF-I evaluation.

FINDING #8. Marital issues, family separation, and support of families remain top concerns for OIF Soldiers.

Nearly 50% of OIF-II Soldiers reported that being separated from family was a major stressor. Operation Iraqi Freedom (OIF-II) Soldiers who were married reported high marital satisfaction; 76-78% reported that they had a good and stable marriage; and 14% reported plans to separate or divorce, which is higher than the rate reported in a pre-deployment comparison group of 9% and the rate reported on the survey during OIF-I of 11%. Only 21% of married Soldiers reported being satisfied with the rear-detachment support of their families (compared with 18% in OIF-I); only 24% of married Soldiers reported that they were satisfied with the FRG support (vs. 15% in OIF-I).

ADDITIONAL DATA FROM FOCUS GROUPS PERTAINING TO MORALE

Focus groups provided Soldiers with an opportunity to express their views about their deployment experiences and assess if there were any areas not adequately covered on the survey. Below is a summary of the most common concerns that Soldiers identified during focus groups.

a. "Garrison" rules applied in a war zone vary across base camps/ FOBs, even within the same camps, and rules change frequently. Soldiers, who are "outside the wire" every day risking their lives, particularly resent seemingly "petty" rules when they return from patrol or criticism for things they perceive as being trivial in the context of what they have had to do on patrol or in combat. Examples include not being able to wear PT clothes to the dining facilities (DFACs) on some camps; not being able to carry small backpacks into the DFAC, despite having to walk long distances on some camps; not being allowed to wear a tiny penlight on the shirt pocket despite the convenience of this for using portable latrines at night or getting around on posts at night, etc.

b. Leadership/communication concerns exist, particularly the perception that there is poor information flow about the purpose of missions and lack of information about critical events, such as a Soldier being injured. Common complaints that Soldiers expressed included rapidly changing missions, "micromanagement" by higher leadership, frequent "pointless details" that cut into the already limited time for recovery after missions, perceived favoritism, and lack of positive feedback.

c. Soldiers also spoke frequently about the personal nature of casualties, loss of unit members, the constant threat of serious harm or death, frequent mortar attacks, the sense of anticipation, of never knowing when or where something bad would happen, feeling like "sitting ducks" on patrol "outside the wire" with frequent IED attacks, not being able to fight back at times due to rules of engagement, and the perception that there is often no clearly identified enemy.

d. Long deployment length, back-to-back deployments, and separation from family were also prominent concerns for Soldiers. Most Soldiers felt that they could comfortably manage a 6-month deployment, but the year-long deployment was very stressful. There were also concerns about back-to-back deployments for some Army units. Members of National Guard units were particularly distressed by what they perceived as an unduly long and poorly organized training period prior to deployment (up to 6 months with very limited leave time) prior to the year-long "boots on the ground."

e. High OPTEMPO, lack of down/free time, and lack of personal space were all issues that Soldiers reported commonly.

f. Some Soldiers expressed considerable anger at the Army's stop-loss policies that prevented them from leaving service at the end of their obligation, and led some to express feelings that the Army had broken its "contract" with the Soldier.

g. Some Soldiers perceived that there were unclear policies regarding family emergency leave. Some Soldiers felt that their leadership did not take sufficiently seriously some family emergencies, or that there was inequity in the decisions about which types of emergencies would result in sending a Soldier home and for how long.

h. Another concern that Soldiers voiced frequently that was not covered on the survey involved the unique factors inherent in working with and training new Iraqi security forces, including lack of equipment and supplies, communication problems, and concerns about infiltration from insurgents.

Soldiers also reported beneficial/positive aspects of deployment, including friendships, satisfaction with the job they were doing, improved confidence, cohesion, demonstrating success in missions, and pay. Many felt that improved DFACs, living conditions, MWR facilities, and R&R programs improved morale. Soldiers said they were satisfied with the lottery system that some units established to assure fairness regarding R&R trips back home.

DISCUSSION

This study of over 2,000 OIF-II Soldiers surveyed throughout Iraq and Kuwait used the same survey instruments as were used in a theater-wide assessment in OIF-I and in a study of Soldiers from combat units surveyed 3 to 4 months after returning from OIF-I reported in a prominent medical journal (see 2003 MHAT report, and Hoge, et. al. N Engl J of Med; July 1, 2004). Although the study enrollment did not use a random sampling design, the sample is very likely to be representative of most combat and support units serving in OIF-II. Operational factors largely determined which Soldiers were available to participate, and Soldiers were surveyed in their company or battalion areas at multiple FOBs throughout Iraq and Kuwait. The survey over-sampled Reserve and National Guard units, that made up about half of the sample compared to 36% of all Soldiers serving in OIF-II at the time. In addition, the survey somewhat over-sampled female Soldiers; 14% of the sample were female Soldiers compared with 10% overall in the OIF-II theater. This assured that adequate comparisons could be made by component and gender. Although the sample demographics differed somewhat from the theater at large, the comparability in rates by component and gender supports the generalizability of the survey rates to the larger theater population.

While mental health problems remain a leading health problem for Soldiers deployed to Iraq and Kuwait, there were significant decreases observed in the prevalence rates of mental health concerns between Soldiers during OIF-II compared with OIF-I. It is unlikely that differences in sampling strategy or population demographics accounted for the lower rates of mental health problems in OIF-II compared with OIF-I. These two samples were obtained at almost the identical timeframe (end of August to early October) in 2003 and 2004. The OIF-I and OIF-II samples were very similar in terms of country where surveyed (Iraq/Kuwait), gender, rank, marital status, and duration that the Soldiers had been deployed at the time of the survey. The OIF-II sample had a higher percentage of Reserve and National Guard Soldiers than the OIF-I sample, resulting in a somewhat older population. This partly mirrored the changes in the overall theater population, primarily due to National Guard infantry units serving in a much greater capacity in OIF-II than in OIF-I. Analysis showed that there were no significant differences in the rates of mental health problems by component, so the fact that the OIF-II sample had a higher proportion of National Guard Soldiers than the OIF-I sample

is not likely to account for any observed differences in prevalence rates between the OIF-I and OIF-II samples. In addition, adjusting the prevalence rates for OIF-II to the distribution of unit types seen in OIF-I or by demographic differences in the population (component and age) did not result in any appreciable changes in the reported rates, lending support to the conclusion that the differences in prevalence rates observed among OIF-I Soldiers and OIF-II Soldiers were not due to differences in the types of units or demographics of the units that were sampled.

There are several possible explanations for why the mental health prevalence rates were lower among the OIF-II Soldiers than the OIF-I Soldiers.

a. Although there were similar rates of many combat experiences, certain experiences thought to be more closely related to PTSD symptoms (body handling, being responsible for the death of an enemy combatant) were more prevalent during OIF-I than in OIF-II and combat frequency, as measured by number of firefights was also higher in OIF-I.

b. There have been substantial improvements made in the quality of life in theater, particularly access to air conditioned sleeping quarters, better facilities (bathrooms, showers, MWR facilities, etc.), better food and DFACs, and improved communication home through telephone and e-mail. These likely help buffer the negative effects of combat.

c. Evidence from the survey suggests that there have been improvements in training Soldiers in handling the stresses of deployment.

d. There have also been an increased number of mental health professionals and improved distribution of mental health professionals.

Regarding combat experiences, clearly the nature, frequency, and intensity of the combat experiences are the most important predictors of acute or posttraumatic stress disorders. There have been changes in the types of combat operations from OIF-I to OIF-II. Operation Iraqi Freedom (OIF-I) Soldiers experienced very intense sustained ground combat during the initial operations, with large numbers of Iraqi military and civilian casualties. Also, there were the constant threat of chemical or biological attack and the added stress of having to work in protective suits for extended periods during OIF-I. On the other hand, OIF-II Soldiers have had to deal with the increased rocket/mortar attacks and increased threat of improvised explosive devices (IEDs) and vehicle borne improvised explosive devices ("VBIED"), changing rules of engagement that emphasize continuous patrols in urban areas, security, and rebuilding missions, as well as a new government and increased collaboration with Iraqi security forces. Further research is needed to understand which types of combat/deployment experiences will be more predictive of long-term mental health sequelae.

Between OIF-I and OIF-II, there have been significant improvements in quality of life that likely contribute to improved morale. Compared with OIF-I Soldiers, OIF-II Soldiers

have much greater access to air-conditioned sleeping areas, food cafeterias, MWR facilities, better bathroom/shower facilities, and markedly improved communication home. Although the relationship between morale and the prevalence of mental health problems is very complex, it is highly likely that improved quality of life and improved morale buffer the effects of ongoing combat operational stressors.

Regarding training, the survey suggested that more Soldiers are receiving training in handling the stresses of deployment and that this training has a beneficial effect in building confidence and helping Soldiers get assistance when they need it. A high percentage of Soldiers reported helping a fellow Soldier access professional help. It is not fully understood what types of training programs are most effective in building resiliency to operational stress; this is an area that needs much, additional research. Key elements of any training program include information about what leaders can do to improve morale and cohesion, what leaders and Soldiers can do to better cope with stress, what types of mental health problems are most likely following combat, and how Soldiers can get help when needed.

Regarding access to mental health professionals, there are ample data collected in the other annexes of this report that shows that there have been considerable increases in the number of mental health professionals in theater and increased emphasis on outreach efforts in OIF-II compared with OIF-I. The Soldier Health and Well-being Survey confirmed that Soldiers who screened positive for a mental health problem were significantly more likely to access a chaplain or other mental health professional in OIF-II than in OIF-I. Among Soldiers who screened positive for a mental health problem, 40% reported that they had received help from a chaplain, mental health professional, or medical professional, compared with 29% of OIF-I Soldiers. While this may be because of improved mental health care delivery and outreach, it also may be related to theater maturation and greater stability of Soldiers on individual bases, or improved coordination between primary care professionals, chaplains, and mental health professionals. Among Soldiers who had returned from OIF-I deployment who screened positive for a mental health problem, 40% reported receiving help identical to the figure reported in theater in OIF-II.

Although the comparisons between prevalence rates in OIF-I and OIF-II are encouraging, it is important to bear in mind that over 12% of Soldiers in OIF-II are still experiencing significant acute or posttraumatic stress symptoms or symptoms of depression or generalized anxiety. Especially concerning is the markedly higher rate among transportation and support (FSB, CSB) personnel from National Guard and Reserve units, who are experiencing rates in excess of 20%, reflecting the fact that in the current operational environment support, personnel may be just as exposed to serious combat stressors as Soldiers from combat arms units. Although preliminary, the data indicate that the high rates of mental health problems in support units are correlated with lower ratings of combat readiness, training, and confidence in their unit's ability to perform the mission. It is unclear if the perceptions that these Soldiers reported accurately reflect their levels of combat readiness, and if improved training

would adequately buffer against negative mental health outcomes, but the data suggest that further assessment of this is warranted.

RECOMMENDATIONS

1. Continue to improve awareness of mental health issues, access to care, and efforts to reduce stigma. Considerations include:

a. Emphasizing the role of leaders at all levels in facilitating recognition of mental health concerns, training in handling the stresses of deployment, and encouraging the use of available resources.

b. Assuring that there is accessible mental health support to all units throughout the theater.

c. Where feasible, integrating mental health care with primary care in troop medical clinics/battalion aid stations so that mental health care becomes routine in these settings.

Overall, more mental health professionals have been working in Iraq and Kuwait during OIF-II than in OIF-I. A significantly higher percentage of Soldiers with mental health problems in OIF-II accessed mental health services than in OIF-I, although still over half of the Soldiers who screened positive for mental health problems reported not receiving services. Challenges remain in providing services in this combat environment and reducing the stigma and barriers to care which Soldiers perceive. Considerations to reduce these barriers to care include:

a. Emphasizing the role of leaders at all levels in facilitating recognition of mental health concerns, training in handling the stresses of deployment, and encouraging access to services. Soldiers and leaders should be educated about the predictable stresses of deployment, including PTSD. Leaders have a critical role in fostering unit morale and cohesion, and assuring that Soldiers have the equipment and training needed for mission success, sufficient recovery time, and training in how to best cope with the deployment stressors. Soldiers and leaders need training in how to recognize signs of operational stress and posttraumatic stress, and how they can receive help when needed, to include buddy aid, medic, chaplain, mental health professionals, and other forms of support. Training should also include the fact that increased use of alcohol is associated with PTSD symptoms, which can lead to alcohol-related adverse behaviors. Leaders also play an important role in reducing organizational barriers to care, such as assuring that Soldiers get the needed time and have the means to get to a mental health appointment. They may also be able to effect perceptions of stigma, although there is no research yet to support this.

b. Assuring that there is accessible and visible mental health support to all units throughout the theater. This requires adequate equipment for division mental health personnel and combat stress control teams to conduct outreach, establish predictable

mental health services at battalion levels, and provide adequate supervision to mental health personnel working remotely (e.g. availability of up-armored vehicles, communication), and location of personnel to assure that Soldiers have regular and predictable access to mental health professionals.

c. Where feasible, integrating mental health care with primary care in troop medical clinics/battalion aid stations. Mental health care should become as routine as all other primary care services. Considerations to facilitate this include using the same facilities, entrances, and waiting areas that are used for routine medical care, as well as the same record keeping system that primary care providers use, limiting the details of the mental health notes to those necessary to assure continuity of clinical care and safety. It is also important to assure robust collaboration between mental health professionals, chaplains, primary care providers, and unit leaders, which is the subject of another annex of this report.

2. Develop and assess the effectiveness of standardized training modules to prepare Soldiers to handle the psychological demands of deployment and combat-related stressors throughout the deployment cycle. Train leaders and Soldiers that stress symptoms and other mental health problems are common and expected reactions to combat, that mental health interventions are best applied as early as possible, and the ways in which Soldiers can get help when they need it.

The data suggest that training Soldiers in suicide awareness and in dealing with the stresses of deployment has many potential benefits. Standardized training materials need to be further developed and applied before, during, and after deployment that teaches these skills to Soldiers and leaders. A particular emphasis should be given to educating Soldiers and leaders about the likelihood of posttraumatic stress symptoms following combat experiences, normalizing these symptoms, providing education about the benefits of earlier treatment, and the methods available, and information on how to access services if the symptoms are causing functional impairment.

3. Continuously assess how well the behavioral health needs of families are being met in the rear. Establish clinical behavioral health support to FRGs and rear detachment commanders at least at the brigade level to address family issues and help coordinate/facilitate access to resources.

The well-being of military families is essential to the health of Soldiers deployed to OIF. Many family members live on posts where there is limited availability of TRICARE

providers in the community to address their mental health needs and those of their children. At Fort Bragg, for example, much of mental health care that spouses received was through the primary care medical clinics on post, because of the lack of availability of appointments for family members at the military treatment facility or in the community. Soldiers continue to express many concerns about the ability of rear detachment commanders and FRGs to adequately support families, a finding also identified in surveys conducted among spouses of Soldiers deployed to OIF/OEF. The data suggest that the Army needs to establish permanent clinical social work support at least at the brigade level to support FRGs, to consult with rear detachment commanders, to help families cope with the deployment stressors, and to ensure families receive needed services. Leaders can assure that family problems are addressed in a timely manner.

4. Reevaluate if levels of combat skills training are sufficient for transportation and support personnel from National Guard and Reserve units in the current operational environment, since confidence in combat skills likely builds resiliency to the negative effects of combat stressors.

Data from this report show that lower perceptions of combat readiness, levels of training, and confidence in the unit's ability to perform the mission are strongly correlated with higher rates of mental health problems. While overall, National Guard and Reserve Soldiers had similar rates of mental health concerns, there were marked differences observed by unit type among National Guard and Reserve Soldiers. Soldiers in transport and support units from National Guard and Reserve units experienced increased levels of mental health problems compared with Soldiers in other units, and they reported lower levels of readiness, combat skills training, and confidence. Furthermore, in the current operational environment, these units may be at as high a risk of being attacked as combat arms units. It is unclear if these perceptions reflect accurately on actual combat skills training, or if there are other differences between support and combat arms Soldiers that could explain the findings. However, the data suggest that there should be further assessment to determine if the level of combat skills training is sufficient for transporters and support personnel in the current operational environment.

5. Establish/maintain deployment policies that support Soldier morale and well-being across various FOBs.

Focus group data consistently voiced throughout the theater provided some insight into concerns that Soldiers have that may contribute to low perceptions of unit morale. Soldiers are sensitive to perceived inequities in policies between units on the same FOB or between FOBs. Some things for leaders to consider for improved morale related to issues that Soldiers raised in focus groups include:

a. Soldiers perceive many uniform policies in theater to be unnecessary inconveniences that do not relate to operational effectiveness, readiness, or safety. Uniform policies that are not overly restrictive, consistent, and meet the "common sense" test are important to Soldiers. Examples that Soldiers gave include allowing a

small penlight to be worn on a DCU button (very useful in portable toilets at night), sewn on names on hats, PT uniform in the DFAC, backpacks in the DFAC, pouch wallet around the neck on PT or DCU uniforms, weapons in the DFAC, etc. It is important to note that on many bases Soldiers have to walk long distances to get to locations like the DFAC or MWR facilities, and with little downtime between missions, it may be overly restrictive to have to change the uniform they are wearing or secure a backpack or weapon before eating.

b. Soldiers frequently voiced concerns about not receiving adequate information/explanation pertaining to missions (particularly when missions changed), unit policies, or critical events (such as status of wounded unit members). Soldiers also frequently complained that they received very little or no positive feedback for their efforts or lived in a climate where they often received negative feedback or threats of UCMJ action. Leaders should ensure that Soldiers are adequately informed, that policies are clearly expressed, that rumors are addressed, that Soldiers receive positive feedback, and that subordinates are allowed to seek clarification of orders or policies without their leaders responding defensively or considering the Soldier disloyal.

c. Soldiers also complained frequently about not having sufficient recovery time between missions. Leaders should emphasize the importance of not scheduling additional duties during downtime, and should assure that Soldiers get sufficient rest (generally 7 to 8 hours of sleep per 24-hour period) to maintain optimal cognitive acuity.

d. Leaders should assure that clear and consistent family emergency leave policies are communicated to Soldiers.

OPERATIONAL RESEARCH NEEDS

1. Field a unit needs assessment measure that behavioral health professionals in theater can use to assess their units and assure that Soldiers receive adequate services.

It is important for mental health professionals in theater to have the tools to conduct systematic needs assessments of their units to identify any unique needs and assure that Soldiers are receiving adequate care. This tool should include an assessment of levels of stress, mental health status, unit climate, and level of training in behavioral health issues. In addition, there should be an assessment of availability, access, and acceptability of counseling services provided according to the latest standards of care. The commander, chaplains, and mental health professionals would use the findings from this behavioral health assessment to target specific action plans, including behavioral health prevention and early intervention efforts and distribution of resources. A prototype instrument that WRAIR developed is ready for initial fielding.

2. Identify the scientifically valid key leadership behaviors that facilitate Soldier morale, cohesion, and unit performance in a hostile environment.

Leadership at the local level is critical for maintaining high Soldier moral, unit cohesion, and unit performance. Identifying and training those specific leader behaviors that have been associated with optimal Soldier and unit performance need to be top priorities for future research efforts and leader development.

3. Develop and assess the effectiveness of training programs for Soldiers and leaders to improve coping with operational stresses, understanding of mental health issues, and access to services. Assess the effectiveness of new programs to reduce the stigma of mental health problems. Determine the effectiveness of critical incident stress debriefing (CISD) and other interventions to prevent PTSD.

Given that a significant number of Soldiers screened positive on the PTSD scale, it is imperative that the military determine the most efficacious early intervention strategy for attenuating or preventing the onset of PTSD. This includes efforts to improve resiliency of Soldiers through new training materials, and efforts to reduce the stigma of mental health care and improve access to services. In addition, it is important to determine the effectiveness of interventions that are being used, but do not have a strong evidence base to support their use, such as CISD. The CISD model is the most widely used methodology applied to groups exposed to traumatic events, although its effectiveness has not been proved. The WRAIR has a scientifically approved research protocol to assess the effectiveness of CISD in ameliorating the adverse mental health effects of Soldiers exposed to combat.

TABLES AND FIGURES SUPPORTING FINDINGS

Table 1: Units Surveyed

MNC-I
(b)(2)-2

CFLCC				
Transporters	Combat Arms	Support	Signal	Medical
(b)(2)-2				

Table 2: Survey Locations

Location	# of Surveys	Location	# of Surveys
(b)(2)-2 Kuwait	118	(b)(2)-2 Iraq	84
(b)(2)-2 Kuwait	52	(b)(2)-2 Iraq	61
(b)(2)-2 Kuwait	79	(b)(2)-2 Iraq	53
(b)(2)-2 Kuwait	47	(b)(2)-2 Iraq	28
(b)(2)-2 Kuwait	85	(b)(2)-2 Iraq	115
(b)(2)-2 Kuwait	26	(b)(2)-2 Iraq	136
(b)(2)-2 Iraq	91	(b)(2)-2 Iraq	32
(b)(2)-2 Iraq	45	(b)(2)-2 Iraq	25
(b)(2)-2 Iraq	6	(b)(2)-2 Iraq	30
(b)(2)-2 Iraq	82	(b)(2)-2 Iraq	58
(b)(2)-2 Iraq	282	(b)(2)-2 Iraq	50
(b)(2)-2 Iraq	29	(b)(2)-2 Iraq	166
(b)(2)-2 Iraq	85	(b)(2)-2 Iraq	53
(b)(2)-2 Iraq	27	(b)(2)-2 Iraq	119
		Total	**2,064**

Table 3: Types of Units Surveyed

Unit Type	# (%) of Surveys OIF1	# (%) of Surveys OIF2
Combat (IN, CAV, FA, ADA, AR)	383 (51)	818 (40)
Support (FSB, CSB, Maint, etc.)	42 (6)	347 (17)
Transportation	72 (10)	131 (6)
Engineers/EOD	50 (7)	176 (9)
Military Police*	35 (5)	152 (7)
Civil Affairs	27 (4)	45 (2)
Signal	12 (2)	120 (6)
Medical from CSHs and FHs	125 (17)	245 (12)
Other/Not Listed	10 (1)	30 (2)
Total	**756**	**2,064**

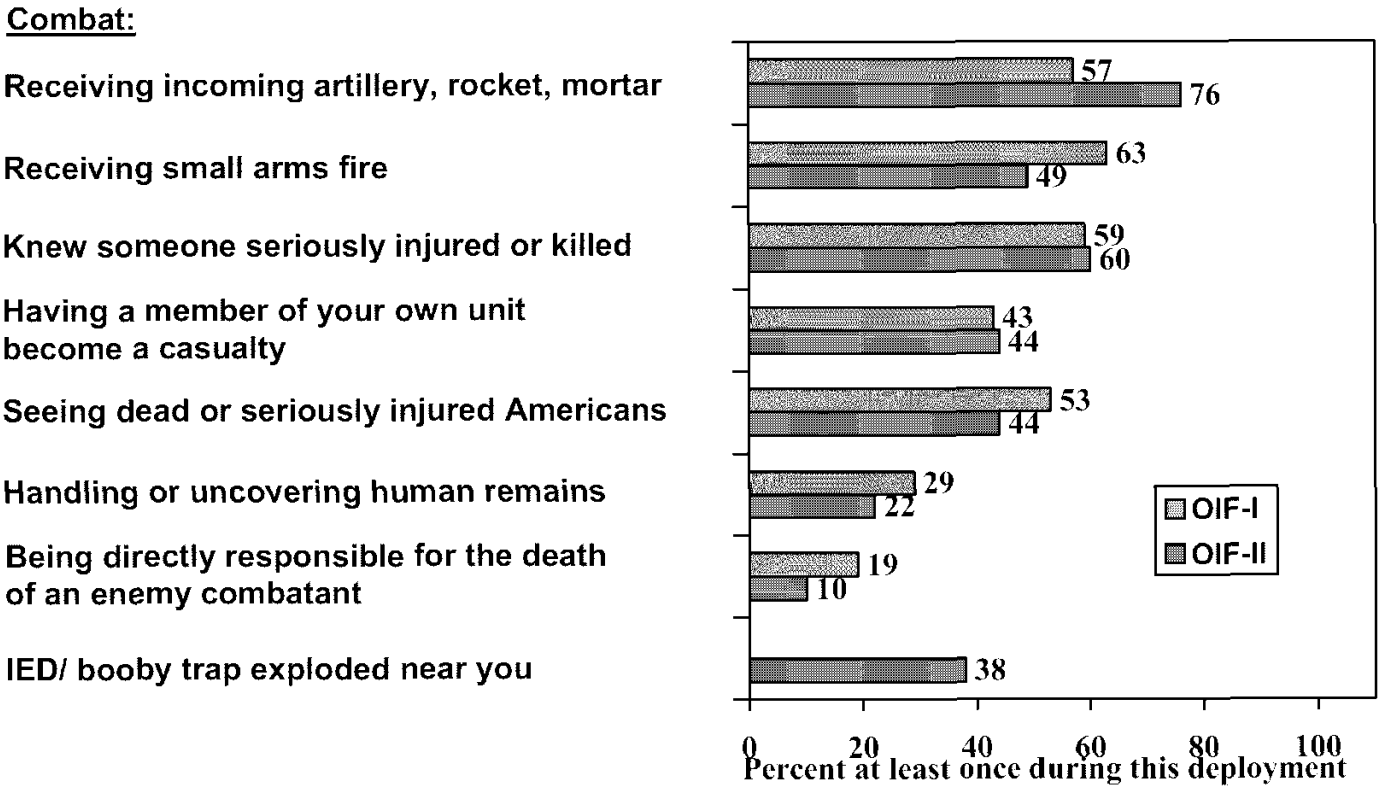
* This category includes MPs and other personnel (e.g. FA Soldiers) working as MPs in Detainee Operations at Abu Ghraib and Bucca.

Table 4: Demographics of Study Populations

	OIF-I Sample, 2003 (n=756) **No. (%)**	OIF-II Sample, 2004 (n=2,064) **No. (%)**	Total OIF-II Army Population (n=99,883) 30 Sep 20O4 **Percent Only**
Unit Location			
Iraq	577 (76)	1,595 (77)	89
Kuwait	179 (24)	469 (23)	11
Component			
AC	542 (72)	955 (47)	65
NG	58 (8)	690 (34)	21
RC*	155 (21)	410 (20)	14
Grade			
E1-E4	435 (58)	1,133 (55)	50
E5-E6	226 (30)	684 (33)	31
E7-E9	35 (5)	98 (5)	7
Officers/Warrant Officers	58 (8)	145 (7)	12
Age			
18-24	378 (50)	894 (43)	Not Available
25-29	166 (22)	440 (21)	
30-39	133 (18)	505 (25)	
40 or older	74 (10)	219 (11)	
Gender			
Male	646 (86)	1,761 (86)	90
Female	108 (14)	288 (14)	10
No. (%) Single Never Married	303 (41)	824 (41)	Not Available
No. (%) Married			
Living with spouse/geogr. apart	349 (47)	951 (47)	
Married but separated	29 (4)	104 (5)	
No. (%) Divorced	46 (6)	148 (7)	
No. (%) with Children	332 (46)	976 (48)	Not Available
Months in Theater, Median (Interquartile Range)	6 months (5-7 months)	7 months (6-7 months)	Not Available

*OIF-I RC includes 7 AGR (1%), and OIF-II RC includes 40 AGR (2%).

Figure 1. Important combat and noncombat deployment stressors, OIF-I compared with OIF-II among survey participants.



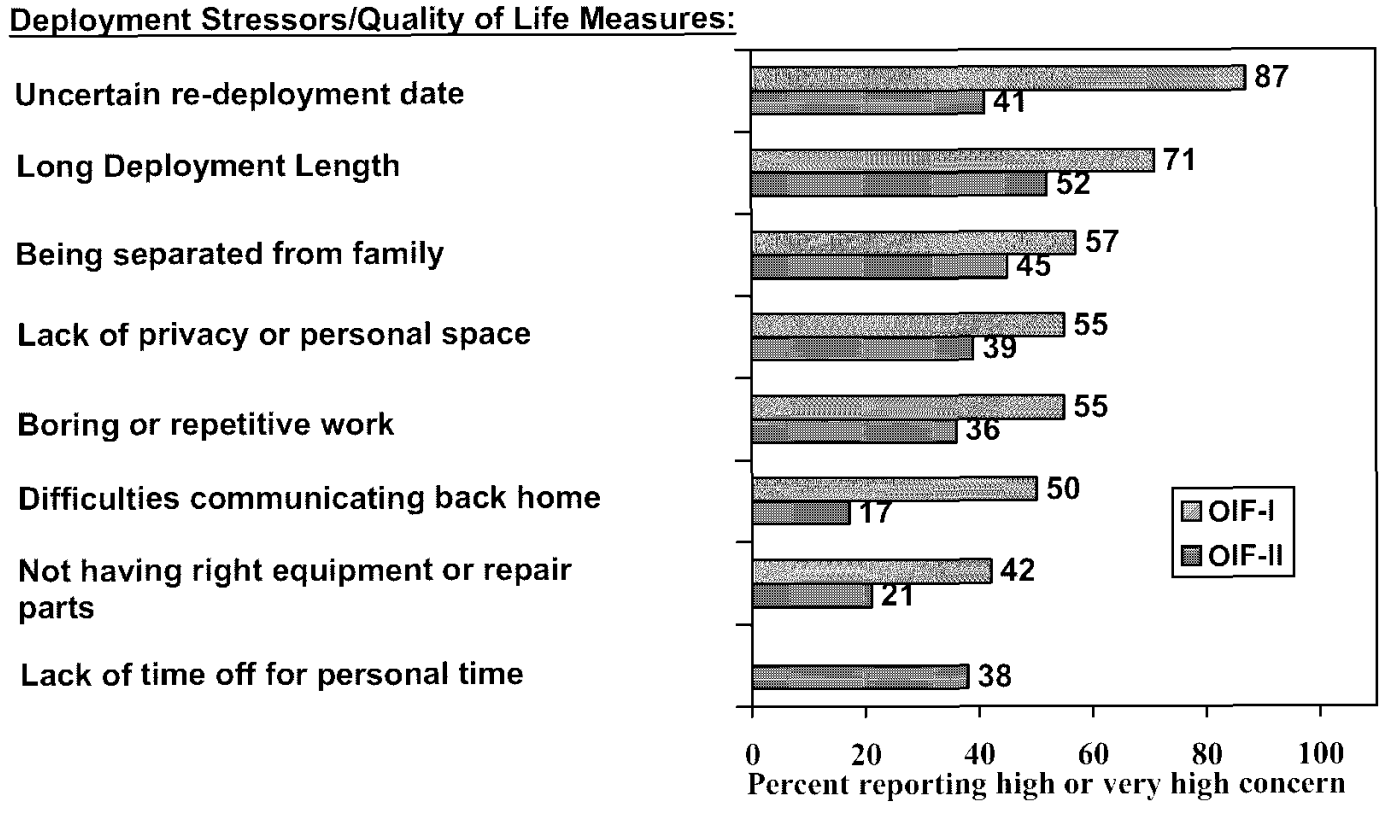


Figure 2. Graph shows percent of Soldiers who screened positive for depression, generalized anxiety, or acute stress/PTSD and endorsed high symptom severity or impairment in work/interpersonal functioning in the past month.

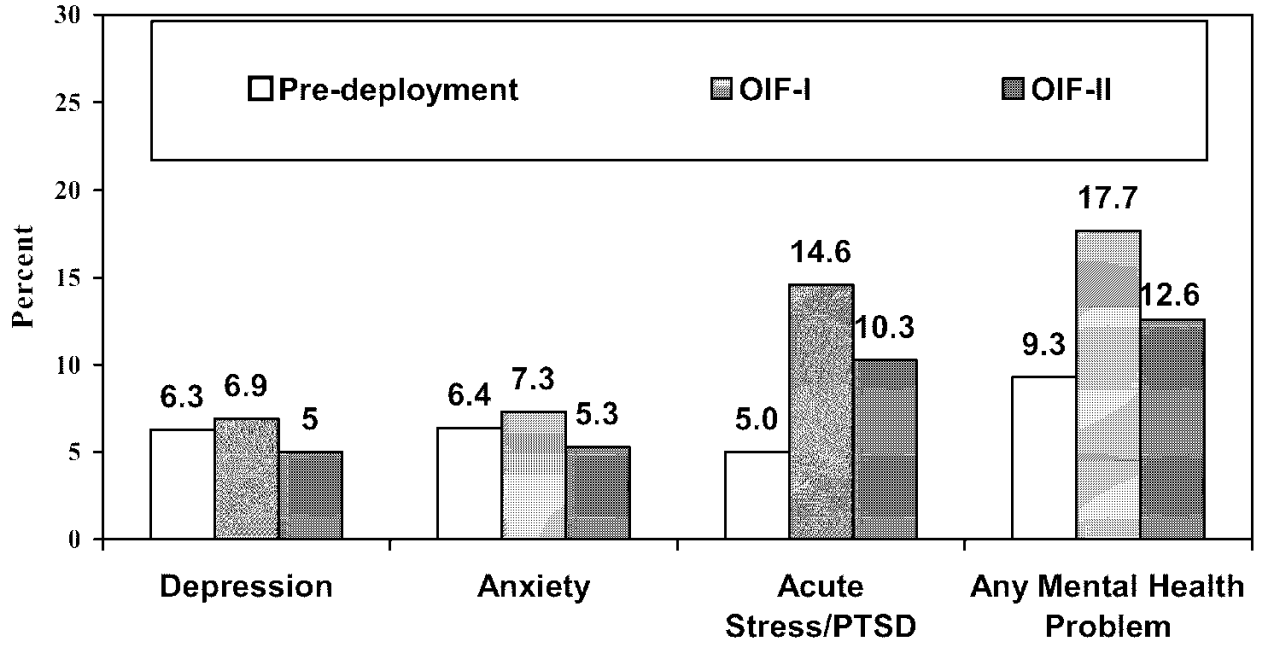


Figure 3. Prevalence of depression, anxiety, or acute stress/PTSD by unit type.

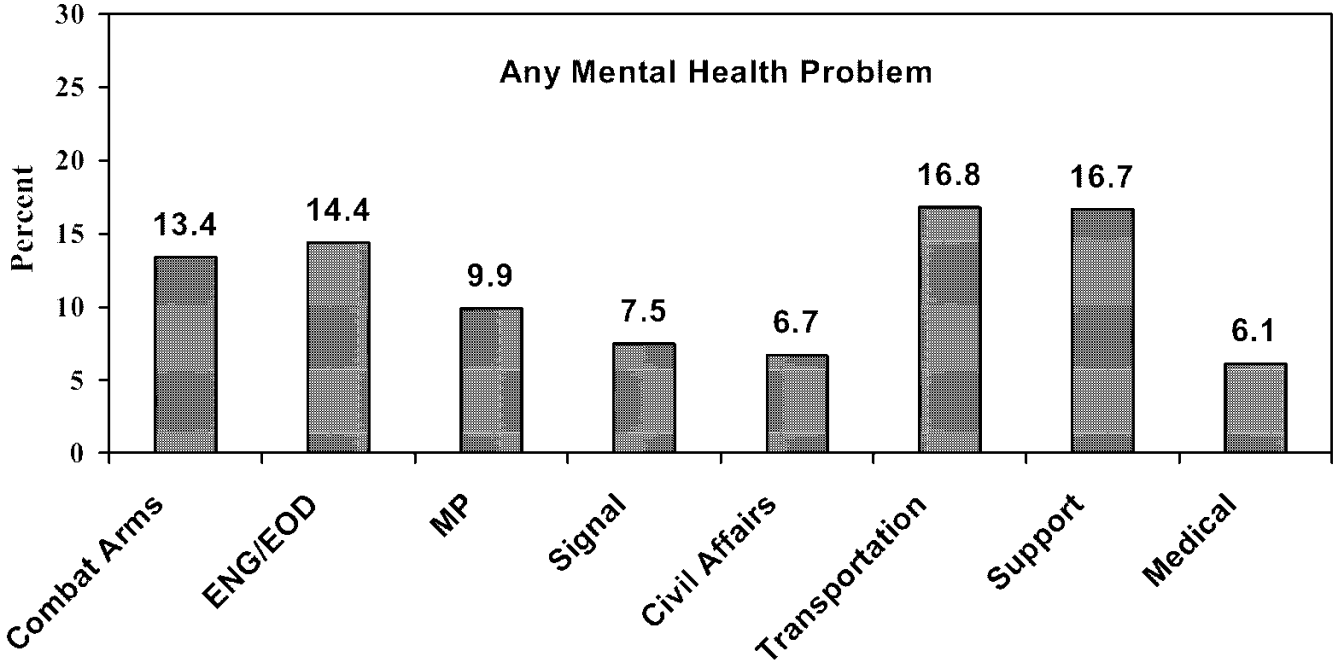


Table 5. Prevalence of Acute Stress/PTSD by Component and Unit Type

	Prevalence of Acute Stress/ PTSD	Prevalence of Any Mental Health Problem
Active Component		
Support Units	11%	13%
Combat Units	14%	16%
Other Unit Types	7%	8%
National Guard		
Support Units	20%*	22%*
Combat Units	8%	11%
Other Unit Types	7%	8%
Army Reserves		
Support Units	34%**	34%**
Other Unit Types	9%	10%

Support units include transportation, forward/combat support, maintenance, and DISCOM Soldiers. Any mental health problem includes screening positive for acute stress/PTSD, depression, or generalized anxiety.
* p<.01 for comparison between NG support units and NG combat units
**p=.001 for comparison between RC support unit and AC support unit; p<.001 for comparison between RC support units and RC other units
Other comparisons not significant

Table 6. Perceptions of Readiness by Component and Unit (Percent Who Agreed)

	I have real confidence in my unit's ability to perform its mission.	I think my unit would do/did an excellent job in combat.	I think the level of training is high.
Active Component			
Support Units	63%	48%*	50%
Combat Units	67%	68%	58%
Other Unit Types	68%	55%	43%
National Guard			
Support Units	55%	41%*	28%*
Combat Units	65%	62%	51%
Other Unit Types	57%	47%	33%
Army Reserves			
Support Units	54%	48%	29%
Other Unit Types	51%	44%	39%

Responses to the three statements above ranged on a 5-point scale from strongly disagree to strongly agree. "Agree" and "strongly agree" were scored as positive. Support units include transportation, forward/combat support, maintenance, and DISCOM Soldiers.
* p<.001 for comparison between support units and combat units within Component

APPENDIX 1

SUMMARY OF SOLDIER HEALTH AND WELL-BEING SURVEY

The Soldier Health and Well-being Survey is a specially adapted version of a questionnaire that WRAIR uses in an ongoing protocol to assess the effects of OPTEMPO, combat exposure, and mental and physical health variables on Soldiers and Marines, as well as family members. Data from other samples that WRAIR collected previously are used as comparison data in this report. The findings from scales and items in the survey that are presented in this report include:

Combat and Deployment Stressors

Combat and deployment stressors were examined using two scales.

Combat Exposure: The frequency of exposure to various combat events was examined, and participants were asked to rate the number of times they felt they were in serious danger of being injured or killed (four-point scale). Example questions include: "being attacked or ambushed," "receiving small arms fire," "seeing dead bodies or human remains," "clearing/searching homes or buildings," and "being responsible for the death of an enemy combatant."

Deployment Stressors and Quality of Life Measures: Participants also rated their concern about various other stressors along a five-point scale. Deployment stressors included: "being separated from family," "uncertain redeployment date," "duration of deployment," "lack of privacy," "boring and repetitive work," "difficulties communicating back home (e.g. telephone calls, e-mail, mail)," and "lack of privacy or personal space."

Morale and Unit Cohesion

Participants were asked to rate both their personal morale and the morale in their unit on a five-point scale from "very low" to "very high." Unit cohesion was measured as an average of participants' agreement or disagreement to the following three questions: "The members of my unit are cooperative with each other," "The members of my unit know that they can depend on each other," and "The members of my unit stand up for each other." (Castro, 2000)

Readiness

General perceptions of readiness were measured with three items that asked participants to rate on a five-point scale from "strongly disagree" to "strongly agree" their assessment that the unit would do/did an excellent job in combat, that the level of training in the unit is high, and that there is high confidence in the unit's ability to perform its mission.

Mental Health Status

Participants were asked a number of questions about their current mental health functioning in the areas of depression, generalized anxiety, and PTSD. In order to score positive for one of these three areas, the participant had to endorse items on each scale according to established clinical guidelines at "more than half the days" (depression/anxiety scales), or "moderate" level (PTSD scale) AND endorse a high number of symptoms (PTSD scale) or mark that the problem caused functional impairment (depression and anxiety scales). The functional impairment question for depression and anxiety was based on a single question asking the respondent to rate how difficult the symptoms had made it to do his/her work or get along with other people. "Very difficult" or "extremely difficult" was scored positive. For the PTSD scale, a positive score required both meeting the DSM criteria at the moderate level and having a total score of at least 50 on a scale of 17 to 85. This established a conservative estimate of those at high risk for a possible mental disorder. (Spitzer, 1999; Blanchard, 1996; Hoge, 2004)

Stigma and Barriers to Behavioral Health Care

Stigma and barriers to receiving mental health care were assessed by asking each participant to agree or disagree (on a five-point scale) with a series of 17 questions. Organizational barrier questions included, "I don't know where to get help," "It is difficult to get an appointment," and "It is too difficult to get to the location where the mental health specialist is." Stigma questions included "I don't trust mental health professionals," "My leadership would treat me differently," "My leaders would blame me for the problem," and "I would be seen as weak." (Hoge, et. al. 2004; Britt 2000)

Marital Satisfaction and Family Support

A number of factors were examined about marriages and how families were supported at the home station.

Marital Satisfaction: Measured by the average response to four questions ("I have a good marriage," "My relationship with my spouse is very stable," "My relationship with my spouse makes me happy," and "I really feel like a part of a team with my spouse."). In addition, participants were asked whether or not they (or their spouses) intended to separate or divorce.

Family Support During Deployment: Participants were asked to rate their satisfaction of their unit rear detachment's support of their families, and their satisfaction with their unit FRG's support of their families.

Mental Health Training

Soldiers were asked if they agreed on a five-point scale from "strongly disagree" to "strongly agree" if training in suicide prevention was adequate, if training for identifying Soldiers at risk for suicide was sufficient, and if training in handling the stresses of

deployment was adequate. Soldiers were also asked their confidence in their ability to identify Soldiers with depressive symptoms, at risk for suicide, and whether they had attended training in suicide prevention or stress education using "yes-no" questions.

Rating of Survey

Soldiers were asked to rate on a five-point scale ("strongly disagree" to "strongly agree") their satisfaction with the survey in three areas: survey worthwhile, content appropriate/important, and survey covered the key/main issues. Ratings were very high. Only 16% disagreed with the statement that the survey was worthwhile, 10% disagreed that the survey content was appropriate/important, and only 9% disagreed that the survey covered the key/main issues.

APPENDIX 2

FOCUS GROUP INTERVIEWS

Seventy-three small group interviews from CFLCC AO (Kuwait) (n=8 groups) and MNC-I (Iraq) (n = 65 groups) with junior enlisted (N = 29 groups), NCOs (N =15 groups), officers (N=6 groups) and mixed officer, NCO and enlisted (N=23 groups) were conducted to obtain Soldiers' perspectives on the operational/combat stressors they encountered. A total of 177 junior enlisted Soldiers, 128 NCOs, and 28 officers were included in the groups. Of the 323 service members who were involved, 48 were women.

The Mental Health Advisory Team (MHAT) members conducted all interviews among Soldiers who had just completed the Soldier Health and Well-being Survey at the same locations throughout Kuwait and Iraq where the survey was administered.

Themes/Questions

All groups were asked the same questions. Below are the specific questions for all focus groups.

Questions: (1) Was there anything not covered on the survey that is important for us to know about your experience during the deployment? (2) What has been the most positive aspect of this deployment? (3) What has been the most negative aspect of this deployment? (4) What has been the most stressful/challenging aspect of the deployment? (5) How available are behavioral health services if you need them? (6) Please tell us about your experience with Rest and Relaxation (R & R) or the Environmental Leave (EML) program?

Procedures

All interviews began with members of the MHAT interview team introducing themselves and describing the purpose and objective of the interview. Confidentiality and anonymity were guaranteed in order to encourage candid and honest discussion. Thus, no names of any of the group members were recorded. Interviews lasted approximately 15 to 30 minutes.

Findings

The key themes identified in the focus group interviews are summarized earlier in this Annex. In addition, Soldiers were asked about whether there were any areas not well covered on the survey. In general, Soldiers were complimentary of the questionnaire. Suggestions for improvement included adding questions on leadership and chain of command (particularly officer level), questions on the impact of stop loss, and more questions specific to the medical units that were surveyed.

APPENDIX 3

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