OPERATIONAL MENTAL HEALTH ASSESSMENT (OMHA) - I:

TASK FORCE AFGHANISTAN 3-09

Authors:

Bryan G Garber, MD, MHSc
Mark A. Zamorski, MD, MHSA
Deployment Health Section
Directorate of Mental Health

Canadian Forces Health Services Group Headquarters
1745 Alta Vista Dr.
Ottawa, ON K1A 0K6
CANADA

+1 (613) 949-6339

Reviewed by:

Col Allan Darch, MD
Director of Mental Health
EXECUTIVE SUMMARY

Introduction

Mental health problems in military organizations are important threats to readiness, operational effectiveness, and force sustainability. Within DGHS, a growing base of scientific knowledge is providing an increasingly clear picture of the need for mental health services, the use of such services, and the perceived barriers to mental health care, at least in garrison. In awareness that mental health needs also occur in operational settings, the CF now deploys several mental health providers on its major missions. Given that the deployed environment poses special challenges to the delivery of effective mental health care, the extent to which the CF’s mental health care delivery model is addressing needs of deployed personnel is unknown.

This first Operational Mental Health Assessment (OMHA-I) was designed to expand the CF knowledge base on mental health care to the deployed environment. The OMHA was established by the Surgeon General with the support of the Chief of Military Personnel and the Chief of Land Staff. The survey component of OMHA-I was administered by DGMPRA as part of the ongoing Human Dimensions of Operations survey. OMHA-I had the following objectives:

1. To identify the prevalence and impact of symptoms of acute traumatic stress, generalized anxiety, and depression in a CF members serving in Task Force Afghanistan;
2. To determine the utilization of and perceived need for mental health services in CF members serving in TFA;
3. To determine perceived barriers to accessing mental health services to CF members serving in TFA
4. To determine satisfaction with mental health services accessed in TFA by CF members;
5. To identify factors that providers of mental health care in TFA perceive to influence their ability to optimize care delivery.

Methods

OMHA-I assessed these using an anonymous survey for TF participants and a series of confidential interviews for health services and pastoral care providers. The OMHA Survey was incorporated as a component of the in-theatre Human Dimension of Operations (HDO) Survey for Task Force 3-09 in Afghanistan.

The in-theatre HDO is intended to be a census of the deployed population approximately halfway through the rotation. Personnel having a DWAN account were emailed an invitation to take an electronic version of the survey. For those without DWAN accounts, administration of paper surveys was conducted by the chain of command through the individual unit adjutants from 15 February 2010 to 15 March 2010. A total of 1572 surveys were completed out of 2779 eligible personnel, yielding a response rate of 57%.
Results
The key findings of OMHA-I survey were as follows:

1. An important minority (8.5%) of deployed personnel exceed CF screening thresholds for acute traumatic stress, major depression, or generalized anxiety.

2. A much larger fraction (31%) reported suffering a stress, emotional, alcohol or family problem during the deployment.

3. 12% of deployed personnel perceived that stress or emotional problems had interfered with their work over the previous 4 weeks. Occupational interference was much more common in those who screened positive for psychological health problems compared to those who screened negative (46% vs. 9%). However, two-thirds of those with perceived impairment were in the group without an apparent mental disorder.

4. There is a strong association of combat exposure to the presence of psychological problems.

5. The prevalence of psychological problems is significantly greater in more isolated settings. This is fully accounted for by the higher combat exposure in these settings.

6. Perceived sleep deficits were strongly associated with psychological problems and perceived work dysfunction.

7. Home front-stressors were also associated with psychological problems.

8. There was no statistically significant increase in the risk of mental health problems with increasing numbers of deployments.

9. Most of those who screened positive for psychological problems or who reported having experienced a stress, emotional, alcohol or family problem during the deployment did not seek care.

10. Only a minority of those with psychological problems (26%) were currently interested in getting help. Conversely, more than half of those interested in getting help were in the group without psychological problems. Lack of awareness of a psychological problem accounted for about one-third of cases of those with psychological problems who were no interested in receiving care.

11. A broad range of attitudinal and structural barriers to mental health care were reported. Those with psychological problems perceived more barriers to care.

12. Those with psychological problems in more isolated areas perceived more structural barriers to care.

The key findings of the mental health provider interviews were as follows:

13. The allocation of 1 additional mental health provider to the Role 1 would be required in order to facilitate outreach to forward areas on a continual basis.

14. Policies and procedures for the conduct of mental health outreach were seen to be lacking.
15. Reservists and clinicians providing HLTA back-fill need to have the same skill set and preparation as other clinicians.

**Conclusions and Recommendations**

A small but important minority of deployed personnel screen positive for one or more common psychological problems. A much larger group perceived having (or having had) some sort of psychosocial problem while deployed.

An important minority of those with psychological or psychosocial problems perceive that it had interfered with their work performance while deployed. The CF thus needs a robust capacity to mitigate such problems for deployed personnel in order to ensure the safety and effectiveness of its operations.

The needs base for psychosocial support extends beyond those who meet conventional screening criteria for psychological problems. This is seen in a) the significant numbers of those who perceived a psychosocial problem while deployed but screened negative for psychological problems; b) the meaningful presence of perceived work impairment due to stress and emotional problems in those who screened negative for psychological problems; and, c) the significant numbers of personnel who were interested in getting help in the group without apparent psychological problems.

Those in more isolated areas have greater need for care but unfortunately also perceive more structural barriers to accessing it, reflecting the reality that such care is far less consistently available in forward areas. However, given the low perceived need for care in those with psychological problems, simply transporting clinicians into more isolated areas may have little overall impact. Outreach efforts would need to be accompanied by educational and other efforts in order to a) mobilize non-clinical resources to enhance self-management of subclinical problems; b) increase the perceived need for care in those with clinically significant problems; and, c) overcome stigma and other attitudinal barriers to care. Innovative alternatives (or adjuncts) to outreach such as video-teleconferencing or computer-guided therapy should be considered.

Clinical outreach needs to occur as a part of a comprehensive and integrated plan to overcome all of the barriers to mental health care on deployed operations. Development and implementation of such a plan will require the support of the operational chain of command, given the role they play in providing access to remote areas and in setting the right climate for seeking mental health care. Additional staff may be required for outreach, and those doing outreach will need clear guidelines and protocols for effectively conducting it.

The OMHA has proven to be a highly effective tool for gathering practical information the mental health care needs of deployed personnel. This information can be put to good use to enhance the delivery of CF mental health services and other forms of psychological support on deployments. The OMHA-II survey has just been completed on TFA I-10, and analysis of those results will confirm those contained in this report. Minor refinements of the OMHA questionnaire will enhance its overall value.
BACKGROUND

This report represents the findings from the first Operational Mental Health Assessment (OMHA) conducted on Canadian Forces Members deployed to Task Force Afghanistan.

Lessening the burden of mental disorders amongst Canadian Forces (CF) personnel is a key focus of the Chief of Defence Staff. The Surgeon General’s priorities are well aligned, with ongoing efforts to further strengthen the delivery of mental health services when and where CF members need it.

Research in the CF and elsewhere has clearly demonstrated that mental health problems are leading contributors to impaired productivity {Kessler, 2006 4800 /id; Sanderson, 2006 5603 /id; Fisher, 2000 6921 /id; Hourani, 2006 2910 /id}, labselecteeism, readiness problems, attrition from military service (for both medical and non-medical reasons) {Cigrang, 1998 2990 /id; Hoge, 2002 2886 /id; Ricard, 2004 2402 /id; Hoge, 2006 2399 /id; Garvey Wilson, 2009 6324 /id; Creamer, 2006 2570 /id; Hoge, 2005 1770 /id}, permanent disability {Pedlar, 2005 2400 /id}, and veterans’ benefits {Pedlar, 2005 2400 /id}. Mental health care represents a large and growing fraction of both inpatient and outpatient care in military organizations {2010 6948 /id; 2010 6949 /id; 2010 6950 /id}. A large body of research exists on need for services and barriers to care for CF members in garrison, and this has informed a series of evolutionary changes in the way in which the CF structures and delivers its mental health services.

The 2008/2009 Health and Lifestyle Information Survey (HLIS) contained a much more detailed section on barriers to care than previous iterations, with the intention being to see how the changes in the CF mental health care system are working {Department of National Defence, 2010 6951 /id}. Analysis showed that the leading barrier to care was that individuals appeared to not recognize that they had a problem for which they should seek help. That is, they endorsed significant symptoms of mental health problems but neither sought care for them nor recognized that they had unmet need for such care. This phenomenon was also seen in analysis of data from both the CF and general population versions of CCHS 1.2 {Fikretoglu, 2008 5799 /id; Wang, 2006 4435 /id}.

Of those who recognized unmet need, a broad range of attitudinal barriers to care were identified, with the leading ones being the preference to manage one’s problems on one’s own, concern about potential career impact, and being afraid to ask for help or concern about what others might think. Others included procrastination (“didn’t get around to it or didn’t bother”), and not thinking that “anything more could help.” Clear structural barriers were conspicuous in their absence: Very few identified concerns commonly voiced by the general public regarding inability to pay for care, transportation difficulties, long wait times, or linguistic barriers.

CF members also experience mental health care needs while they are deployed, particularly when the deployment is a demanding one. Deployed settings present different structural barriers to care, particularly in forward areas. In Afghanistan, CF mental health providers are physically located at Kandahar Airfield (KAF), but many personnel (particularly those at highest risk of mental disorders due to heavy combat
exposure) are in forward operating bases or patrol bases where only primary care services are available.

Outreach to forward areas poses many challenges. Getting mental health clinicians into forward areas requires that they travel there under highly unsafe conditions. Ground transport convoys are frequently targeted for IED attacks or ambushes. The time required for transport and the irregularity of its availability mean that outreach visits could take clinicians out of the mental health clinic at KAF for days at a time, leaving patients at KAF with more limited access to care.

Attitudinal barriers to care may also play out differently on deployment. The intense focus on the operation itself and the clear need to “soldier on” in the face of health problems may make it harder for deployed personnel to recognize a need for care. The extreme stresses involved may lead people to normalize what might actually be pathological reactions to extreme circumstances. The already prominent desire among military personnel to be “tough” and self-reliant (and to be there for one’s comrades) may be magnified. Finally, faced with the requirement that either they or a clinician will need to travel through unsafe territory for care to occur, they may rightly or wrongly judge that their problems aren’t bad enough to merit that risk.

For the last several years, the CF has been deploying several mental health providers to its operation in Kandahar, Afghanistan, but there is no firm data on how well this delivery model is meeting members’ in-theatre mental health care needs. Thus, DGHS needs information to guide continuous improvements in clinical and educational programming in operational settings. This includes a rigorous assessment of: a) the extent of need for mental health services; b) the perceived barriers to care; and c) the potential impact of unmet need on functioning.

Faced with similar knowledge gaps, the US Army has since 2003 conducted an annual in-theatre survey of personnel and their mental health assets, called the Mental Health Assessment Team (MHAT) survey {2008 6404 /id}. Key findings from the most recent iteration of this survey (MHAT VI) {Office of the Surgeon General, 2009 6405 /id} for soldiers serving in Afghanistan include the following: a) 14 - 15% of those surveyed reported symptoms suggestive of clinically significant depression, generalized anxiety, or acute traumatic stress; b) 10 to 11% reported suicidal thoughts; c) a broad range of attitudinal and structural barriers to care were reported; and d) only a minority of those with mental health problems were interested in getting help or had sought care for their problems.

The US MHAT methodology, now through its sixth iteration, provides a robust set of disorder specific instruments with which to measure the burden of psychological problems, and it uses validated instruments to assess perceived barriers to care. Accordingly, a logical next step for the CF was to use this methodology to complete a population-based survey for CF members in an operational setting.

The main objectives of the OMHA were as follows:

1. To identify the prevalence and impact of symptoms of acute traumatic stress, generalized anxiety, and depression in a CF members serving in Task Force Afghanistan;
2. To determine the utilization of and perceived need for mental health services in CF members serving in TFA;
3. To determine perceived barriers to accessing mental health services to CF members serving in TFA
4. To determine satisfaction with mental health services accessed in TFA by CF members;
5. To identify factors that providers of mental health care in TFA perceive to influence their ability to optimize care delivery.

METHODS

Survey Administration

The OMHA assessed these using an anonymous survey for TF participants and a series of confidential interviews for health services and pastoral care providers. The OMHA Survey was incorporated as a component of the in-theatre Human Dimension of Operations (HDO) Survey for Task Force 3-09 in Afghanistan.

The in-theatre HDO is intended to be a census of the deployed population approximately halfway through the rotation. Personnel having a DWAN account were emailed an invitation to take an electronic version of the survey. For those without DWAN accounts, administration of paper surveys was conducted by the chain of command through the individual unit adjutants from 15 February 2010 to 15 March 2010.

Questionnaires

Psychological problems

Acute traumatic stress symptoms were assessed using the PTSD Checklist, Civilian Version (PCL-C) questionnaire {Blanchard, 1996 1405 /id}. PTSD symptoms reported by members in a combat zone are often referred to as acute traumatic stress symptoms as opposed to post-traumatic stress symptoms. This reflects the fact that many such symptoms are acute, not chronic, in those experiencing the ongoing traumatic stress of a combat deployment.

Depression and generalized anxiety were assessed using a form of the Patient Health Questionnaire (PHQ) {Spitzer, 1999 1264 /id}, which was adapted slightly for the MHAT {Office of the Surgeon General, 2006 2447 /id}.

In order to facilitate comparison with other work, we report two different cut-offs for each of these three disorders: We primarily focus on what will be termed the “less stringent” cut-offs, which are those used in civilian studies and in the CF’s post-deployment screening research. For “acute traumatic stress,” a cut-off of 50 or greater on the PCL-C was used with its conventional recall period of the previous month. For depression, the validated civilian algorithm for the PHQ was followed {Spitzer, 1999 1264 /id}, although the recall period for the MHAT version is four weeks as opposed to the two weeks used in the original questionnaire. For generalized anxiety, the validated civilian algorithm for the PHQ was followed {Spitzer, 1999 1264 /id}, though the MHAT version of this PHQ generalized anxiety questionnaire had an additional response.
category for frequency of symptoms (“nearly every day”). For the purposes of the algorithm, a response of either “more than half the days” or “nearly every day” was considered to be a positive response.

For each of these conditions we also report a “more stringent” cut-off; these were the cut-offs used in the US MHAT’s. This was done to permit comparisons with some of the MHAT findings. For acute traumatic stress the more stringent cut-off required that in addition to having a PCL-C score of 50 or greater, the respondent had to have at least one intrusive re-experiencing symptom, at least three numbing/avoidance symptoms, and at least two hyperarousal symptoms, all at the “moderate” level or greater. These are the minimum number of symptoms required under the DSM IV diagnostic criteria {American Psychiatric Association, 2000 1923 /id}. On the depression and anxiety scales, members were screened positive only if they met the “less stringent” criterion mentioned above AND endorsed functional impairment at the “very difficult” or “extremely difficult” level. The functional impairment item asks whether symptoms have made it difficult to do work or get along with others. The MHAT investigators believe that these more stringent cut-offs establish conservative estimates of those at high risk for mental disorders {Hoge, 2004 1539 /id; Spitzer, 1999 1264 /id; Blanchard, 1996 1405 /id}.

For exploration of predictors and covariates of psychological problems, we used the aggregate outcome of “any mental health problem” at the less stringent cut-offs.

To capture perceived psychosocial problems during the whole deployment more broadly, a single question was used: “During this deployment, have you experienced a stress, emotional, alcohol, or family problem?” Response categories were “No,” “Yes, mild,” “Yes, moderate,” and “Yes, severe.”

**Combat Experience**

The intensity of combat experience has been shown to be a strong predictor of both in-theatre {Office of the Surgeon General, 2009 6405 /id; Castro, 2007 6743 /id} and post-deployment mental health care needs {Hoge, 2004 1539 /id; Vasterling, 2010 6535 /id; Wilk, 2010 6539 /id}. The US MHAT {Office of the Surgeon General, 2009 6405 /id} measures combat experience using 30 items of questionnaire developed and refined by Walter Reed Army Institute of Research (WRAIR) {Castro, 2000 6904 /id}; other recent research has used slightly longer versions with up to 36 items {Killgore, 2008 6525 /id}. The experiences include items such as: “being attacked or ambushed”; “receiving small arms fire”; “shooting or directing fire at the enemy”; and having an “IED exploding near you.” The OMHA employed the 34-item version of this scale used in MHAT-IV {Office of the Surgeon General, 2006 2447 /id}.

The simple sum of the total number of different combat experiences (without consideration of their frequency or perceived psychological impact) has been shown to have a nearly linear relationship with the PCL-C score {Office of the Surgeon General, 2009 6405 /id}. Tertiles of this combat exposure score are used to explore the relationship between combat experience and mental health outcomes {Office of the Surgeon General, 2006 2447 /id; Cabrera, 2007 2453 /id; Office of the Surgeon General, 2009 6405 /id; Hoge, 2004 1539 /id; Vasterling, 2010 6535 /id; Wilk, 2010 6539 /id}.  

- 8 -
**Home-front Stressors**

Life stresses such as relationship break-up and financial difficulty are known to be both a cause and an effect of psychological problems. Anecdotally, such home-front stressors such as relationship conflict and financial difficulties also take a toll on the well-being and functioning of deployed personnel. The OMHA explored home-front using four yes/no items asking about the death or serious illness of a family member, the birth of a child, having a spouse or partner leave, or experiencing a serious financial problem during the course of the deployment.

**Perceived Occupational Dysfunction**

The occupational impact of psychological problems was explored using three yes/no questions from the MHAT {Office of the Surgeon General, 2006 2447 /id} that asked if, in the previous four weeks, stress or emotional problems had “limited your ability to do your job”; “caused you to do work less carefully than usual”; or “caused your supervisor to be concerned about your performance.”

**Sleep**

Perceived sleep deficit and its impact was evaluated using three questions take from the MHAT {Office of the Surgeon General, 2006 2447 /id}: The first asked the respondent’s typical number of hours of sleep per night while deployed. The second asked the number of hours of sleep required in order to feel well-rested. A sleep deficit was defined as habitually getting less sleep than required in order to feel well-rested. The effect of a perceived sleep deficit was explored by asking if the respondent had “had an accident or made a mistake that affected the mission because of sleepiness.”

**Care for Psychosocial Problems**

The OMHA explored these using questions from the MHAT {Office of the Surgeon General, 2009 6405 /id} regarding whether the respondent had received “counselling/mental health services for a stress, emotional, alcohol, or family problem” from both medical and non-medical sources (e.g., chaplain or someone in their unit other than the medic). Satisfaction with mental health care was assessed by a single question.

**Perceived Stigma and Barriers to Care**

These 22 items were taken from the MHAT {Office of the Surgeon General, 2006 2447 /id}. The stem for these items was: “Rate your level of agreement with each of the following statements pertaining to factors that might affect your decision to receive mental health counselling or services should you ever have a problem during this deployment.” This list of barriers was developed through qualitative research {Britt, 2000 6905 /id} and refined through the MHAT’s, the Land Combat Study {Hoge, 2004 1539 /id}, and other work {Britt, 2008 6906 /id; Wright, 2009 6907 /id}.

These 22 items were categorized into the following groups based on conceptual considerations, factor analytic work from other studies using these or similar items, and exploratory principal components analysis of the data from this study:

1. Stigma (e.g., “I would be perceived as weak”);
2. Structural barriers (e.g., “Mental health services aren’t available”);
3. Other attitudinal barriers (e.g., “Psychological problems tend to work themselves out without help.”); and
4. Mixed (those that appeared to cross-load on different factors, such as “My leaders discourage the use of mental health services”).

Covariates
Military and socio-demographic variables were obtained from the Background Information Section Questions 1 through 9 of the HDO (see complete questionnaire in ANNEX A). The principal location of the deployment was determined by asking the respondent to identify where they spent the majority of their time during the deployment, in the following categories: “Non-isolated (e.g., KAF)”; “Semi-isolated (e.g., forward operating base)”; or “Isolated (e.g., strong point, patrol base, police sub-station, etc.).”

Statistical Analysis
Descriptive analysis of all covariates and outcome variables was done using SPSS version 15.0 {SPSS, 2006 2374 /id}. Raw values for the prevalence of any mental health disorders as well as the prevalence of acute stress, depression and anxiety are reported.

Significance testing on contingency table data was done using the $\chi^2$ statistic. Logistic regression was used to explore the odds of the primary outcome (any psychological problem) in different risk groups (using a single independent variable) and to explore potential confounding among multiple independent variables. The Kruskal-Wallis test was used to explore differences in combat exposure. This non-parametric test was chosen because of the non-normal distribution of combat exposure scores.

Mental Health Provider Interviews
Structured interviews were conducted from 1 February 2010 to 5 February 2010 with in-theatre mental health providers. The small numbers of staff precluded the conduct of a meaningful quantitative survey. These interviews targeted the following domains: 1) mental health provider well-being; 2) standards of practice; 3) resources from command; 4) coordination; 5) stigma and barriers to care; and, 6) procedures and availability of medications. Specific questions asked are described in ANNEX B.

Ethical considerations
The research protocol underwent review and was approved by the Social Science Research Review Board as per DAOD 5061 (Research Involving Human Subjects).

RESULTS

Response Rate
A total of 1572 surveys were completed out of 2779 eligible personnel, yielding a response rate of 57%. The estimate of 2779 eligible personnel was derived from J1 statistics and excludes personnel on compassionate leave, HLTA or hospitalized at the Role 3 Hospital.
Data Quality

Some potential data quality issues were noted at the time of data entry. These included:

1. Missing data: As shown in Table 1, socio-demographic and military characteristics such as rank, component, etc. were missing in up to 8.4% of respondents. These items were at the very end of the survey.

2. Unrealistically low scores on some of the distress measures: For example, 30% of participants had the lowest possible PCL-C score (17 points).

3. Response set bias: 11% of respondents had the identical response to all 22 items on stigma and barriers to care, 57% of which were “neither agree nor disagree” responses (the middle response category). In addition, this response set bias was reflected in inconsistent responses on two reverse-coded items. This suggests that a minority were not invested enough in at least that part of the survey, which again was situated towards the end of the survey.

4. Internally inconsistent data: For example, 51 respondents denied having received any mental health care but then several questions later indicated that they were “very dissatisfied” with the mental health care they had received.

5. Data inconsistent with other data sources: For example, the number of individuals who reported seeking care and the number of visits they received, on average, was far below the clinical volume reported by the mental health providers.

Socio-demographic and Military Characteristics

Military and socio-demographic characteristics of respondents are shown in Table 1. The majority of the respondents were junior NCM’s (66%), with the Regular Force Component (86%) and described English as their first official language (86%). This was the first deployment for over half of the respondents (52%) and the median time spent on this deployment at the time of survey administration was 5 months. Forward areas were well represented, with 29% being in a semi-isolated location (e.g., forward operating base) and 31% in an isolated location (e.g., strong point, patrol base, police sub-station).

Table 1

<table>
<thead>
<tr>
<th>Military and Socio-demographic Characteristics of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Rank</td>
</tr>
<tr>
<td>---------------------------</td>
</tr>
<tr>
<td>Junior NCM</td>
</tr>
<tr>
<td>Senior NCM</td>
</tr>
<tr>
<td>Officer</td>
</tr>
<tr>
<td>TOTAL</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>Count</th>
<th>Valid %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular</td>
<td>1269</td>
<td>86%</td>
</tr>
<tr>
<td>Reservist</td>
<td>208</td>
<td>14%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1477</td>
<td></td>
</tr>
<tr>
<td>First official language</td>
<td>English</td>
<td>1287</td>
</tr>
<tr>
<td>-------------------------</td>
<td>---------</td>
<td>------</td>
</tr>
<tr>
<td></td>
<td>French</td>
<td>204</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>1491</td>
</tr>
<tr>
<td>Home situation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>383</td>
<td>27%</td>
</tr>
<tr>
<td>Married (with dependents)</td>
<td>430</td>
<td>30%</td>
</tr>
<tr>
<td>Single</td>
<td>547</td>
<td>38%</td>
</tr>
<tr>
<td>Single (with dependents)</td>
<td>76</td>
<td>5%</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>1436</td>
</tr>
<tr>
<td>Years of military service</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 or less</td>
<td>514</td>
<td>35%</td>
</tr>
<tr>
<td>6 to 20</td>
<td>717</td>
<td>49%</td>
</tr>
<tr>
<td>21 or more</td>
<td>124</td>
<td>8%</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>1457</td>
</tr>
<tr>
<td>Total number UN/NATO tours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>765</td>
<td>52%</td>
</tr>
<tr>
<td>2 to 4</td>
<td>579</td>
<td>39%</td>
</tr>
<tr>
<td>5 or more</td>
<td>124</td>
<td>8%</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>1468</td>
</tr>
<tr>
<td>Deployment location (majority of the time)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-isolated</td>
<td>588</td>
<td>41%</td>
</tr>
<tr>
<td>Semi-isolated</td>
<td>419</td>
<td>29%</td>
</tr>
<tr>
<td>Isolated</td>
<td>442</td>
<td>31%</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>1449</td>
</tr>
</tbody>
</table>

**Combat Experiences**

The distribution of the number of combat experiences per respondent is shown in Figure 1. The median score was 8, and the inter-quartile range was 3 to 14. This demonstrates that a significant fraction of respondents had a degree of combat exposure that significantly increases the risk for psychological problems.
Examples of the fraction reporting specific combat experience items is shown in Figure 2 along with the corresponding rates for the US MHAT-IV Survey (Office of the Surgeon General, 2006). While the prevalence of these combat experiences was lower in OMHA-I compared to MHAT-IV, a substantial fraction still showed exposure to high-impact traumatic events.
### Home-front Stressors

A significant minority of respondents reported one or more home-front stressors while deployed. These included the death or serious injury of a family member (18%); the birth of a child (3.5%); having a spouse or partner leave them (5.4%); or having a serious financial problem (2.6%). 25% had had one or more of these events while deployed.
**Psychological Health**

As shown in Figure 3, depression was present in 4.7%, anxiety was present in 5.3%, and acute traumatic stress was present in 4.6%. One or more of the foregoing were present in 8.5%. Being bothered by suicidal thoughts over the previous 4 weeks was reported in 6.1%, with 4.4% having such thoughts “few or several days,” 0.9% “more than half the days,” and 0.8% “nearly every day.”

![Figure 3](image)

**Prevalence of Psychological Problems**

**Self-reported Psychosocial Problems**

A total of 31% of respondents reported that they had “suffered a stress, emotional, alcohol or family problem” during the deployment, with 18% characterizing this as mild, 10% as moderate, and 3% as severe.

A minority of respondents reported that stress or emotional problems had, over the previous four weeks, limited their ability to do their job (4.9%); caused them to work less carefully than usual (9.1%); or caused their supervisor to be concerned about their performance (3.4%). 12% reported one or more of these three types of work dysfunction.

As shown in Figure 4, those with psychological problems were more likely to perceive work dysfunction than those without such problems (p < 0.001 by χ² test). A similar association was seen with self-reported psychosocial problems (p < 0.001 by χ² test). In both cases, those with more severe problems were, as expected, more likely to report dysfunction.
Figure 4
Perceived Occupational Dysfunction in Those with and without Psychological Problems and Self-reported Psychosocial Problems.

Sleep

41% of respondents reported not getting enough sleep in order to feel well rested while deployed. As shown in Table 2, those with perceived sleep deficits were significantly more likely to have any psychological problem (univariate odds ratio = 3.9, [95% CI = 2.6 – 5.8], p < 0.001) and to perceive work dysfunction (OR = 4.4 [3.1 – 6.1], p < 0.001).

53 respondents (3.4%) reported that they had had an accident or made a mistake that had affected the mission because of sleepiness. Those with psychological problems were significantly more likely to report such a mission impact (15.4% vs. 2.3%, OR = 7.6 [4.2 – 13.7], p < 0.001).

Table 2
Association of Perceived Sleep Deficit with Psychological Problems and Perceived Work Dysfunction

<table>
<thead>
<tr>
<th>Perceived sleep deficit</th>
<th>Any Psychological Problem</th>
<th>Perceived Work Dysfunction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
<td>864</td>
<td>96%</td>
</tr>
<tr>
<td>Yes</td>
<td>536</td>
<td>86%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1400</td>
<td>92%</td>
</tr>
</tbody>
</table>

Professional and Non-professional Care

Only a minority of those screening positive for psychological problems or self-reported psychosocial problems had sought some care for it (30% and 24%, respectively). 27% of those with a psychological problem sought at least some care through health...
services personnel; 3% saw only non-health services personnel (chaplain or someone in their unit other than the medic. For those with a self-reported psychosocial problem, the corresponding percentages were 16% and 8%, respectively. The detailed breakdown of the sources of care is shown in Figure 5.

**Figure 5**
Sources of Care in Those with Any Psychological Problem (n = 132) and Those with a Self-reported Psychosocial Problem during the Deployment (n = 474)

Use of medications for sleep or for mental health/combat stress problems was uncommon, with 7.7% and 2.5% reporting such use, respectively.

Those who did receive care from a mental health professional typically received very little care: 50% had only a single visit, 24% had two visits, and 26% had three or more visits.

Of the 62 respondents who indicated that they had received care from a mental health professional during deployment, 30% were very satisfied with the care received, 40% were somewhat satisfied, 17% were somewhat dissatisfied and 7% were very dissatisfied.

Only 34 of the 129 respondents who screened positive for any psychological problem (26%) were “…currently interested in receiving help for stress, emotional, alcohol, or family problem.” Those with conditions at the more stringent cut-off (i.e., those with more severe problems) tended to be more likely to be interested in receiving care than those who met only the less stringent cut-off (31% vs. 18%), but this difference was not statistically significant (p = 0.106 by χ² test). Of the 83 respondents who were
currently interested in receiving help, 49 (59%) were in the group without a psychological problem.

The lack of interest in receiving care among those with psychological problems may be due in part to a lack of awareness of a psychological problem: Of the 93 people with a psychological problem who were not interested in getting help, 34 (37%) did not indicate that they had had a stress, emotional, alcohol, or family problem. The remainder (59 respondents, 63%) did self-report a psychosocial problem while deployed, but were apparently not interested in getting help for other reasons.

**Correlates of Psychological Health Problems and Self-reported Psychosocial Problems**

*Combat Exposure*

Personnel with greater combat exposure had a significantly higher prevalence of any psychological problem (Figure 4). These differences were statistically significant (p < 0.001 by $\chi^2$ test).

**Figure 6**

**Prevalence of Any Psychological Problem by Combat Exposure Score in Tertiles**

*Home-front Stressors*

Those with home-front stressors were also more likely to screen positive for psychological problems (Figure 7). With the exception of the birth of a child, all of these differences were statistically significant (p < 0.001 by the $\chi^2$ test).
Figure 7
Association of Any Psychological Problem with Home-front Stressors

Number of Career Deployments

Figure 7 demonstrates that the total number of career UN/NATO tours was positively associated with the prevalence of any psychological problem. Logistic regression modelling (with number of tours as a scale variable) showed that each additional tour increased the odds of any psychological problem by a factor of 1.10 (95% confidence interval = 0.96 to 1.27). However, the magnitude of the effect was small, and it did not reach statistical significance (p = 0.152 by Wald test).

Figure 8
Association of Prevalence of Any Psychological Problem and Number of Career UN/NATO Tours
Primary Deployment Location

As shown in Figure 9, those in more isolated areas had a significantly higher prevalence of screening positive for any psychological problem (p = 0.002 by $\chi^2$ test).

**Figure 9**

Prevalence of Any Psychological Problem by Location in Theatre

<table>
<thead>
<tr>
<th>% with any psychological problem</th>
<th>Primary location in theatre</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.0</td>
<td>Non-Isolated</td>
</tr>
<tr>
<td>3.4</td>
<td>Semi-Isolated</td>
</tr>
<tr>
<td>4.3</td>
<td>Isolated</td>
</tr>
</tbody>
</table>

Combat Exposure, Home Front-Stressors and Location

One possible explanation for higher prevalence of psychological problems in more isolated locations would be the heavier combat exposure expected in more forward areas. Indeed, those in more isolated areas did have significantly higher mean number of combat exposures (5.8 exposures for those in non-isolated locations, 9.7 for those in semi-isolated locations, and 12.8 for those in isolated locations; p < 0.001 by Kruskal-Wallis test). Those in more forward locations were no more likely to report one or more home front stressors than those in non-isolated locations (p = 0.864 by $\chi^2$ test), so this cannot account for the higher prevalence of psychological problems in isolated locations.

The contribution of heavier combat exposure to the higher prevalence of psychological problems in more forward areas was examined using logistic regression modelling. The results (see Table 3) show that controlling for combat exposure (as tertiles) eliminates the significant association between deployment location and any psychological problems.
<table>
<thead>
<tr>
<th>Any psychological problem</th>
<th>No</th>
<th>Yes</th>
<th>TOTAL</th>
<th>Unadjusted OR [95% CI]</th>
<th>Adjusted OR [95% CI]</th>
<th>p value for adjusted OR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary deployment location</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-isolated</td>
<td>554</td>
<td>94.5%</td>
<td>32</td>
<td>5.5%</td>
<td>586</td>
<td>--</td>
</tr>
<tr>
<td>Semi-isolated</td>
<td>387</td>
<td>92.4%</td>
<td>32</td>
<td>7.6%</td>
<td>419</td>
<td>1.4 [0.9 – 2.4]</td>
</tr>
<tr>
<td>Isolated</td>
<td>384</td>
<td>87.5%</td>
<td>55</td>
<td>12.5%</td>
<td>439</td>
<td><strong>2.5 [1.9 – 3.9]</strong></td>
</tr>
<tr>
<td>TOTAL</td>
<td>1325</td>
<td>119</td>
<td>1444</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combat exposure score (tertiles)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First</td>
<td>551</td>
<td>95.0%</td>
<td>29</td>
<td>5.0%</td>
<td>580</td>
<td>--</td>
</tr>
<tr>
<td>Second</td>
<td>482</td>
<td>93.2%</td>
<td>35</td>
<td>6.8%</td>
<td>517</td>
<td>1.5 [0.9 – 2.7]</td>
</tr>
<tr>
<td>Third</td>
<td>392</td>
<td>85.2%</td>
<td>68</td>
<td>14.8%</td>
<td>460</td>
<td><strong>3.9 [2.4 – 6.4]</strong></td>
</tr>
<tr>
<td>TOTAL</td>
<td>1425</td>
<td>132</td>
<td>1557</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Perceived Barriers to Care: Overall Sample**

*Stigma*

Table 4 shows the responses for all of the questions on attitudinal and structural barriers to care, stratified by the presence or absence of any psychological problem. While most members held largely forward-thinking attitudes about mental health care, a sizeable minority endorsed concerns about stigma such as “My leadership might treat me differently” (30%); “Members of my unit would have less confidence in me” (29%); or “I would be seen as weak” (27%). On the other hand, fewer (11%) were concerned that their leaders would blame them for their problems.

*Structural Barriers*

Structural barriers to care were endorsed less frequently overall: 18% voiced concerns about difficulty getting time off work for appointments; 13% believed that mental health professionals did not come to their location often enough; and 13% thought that it was “too difficult to get to the location where the mental health professionals are.”

*Other Attitudinal Barriers*

Other attitudinal barriers were also identified, with the most prevalent being disagreeing with the statement “It takes courage to get treatment for a psychological problem” (25%) and “The Army supports soldiers with mental health problems” (22%). 16% voiced lack of trust in mental health professionals.

*Mixed Barriers*

Both conceptually and factor analytically, three barriers appeared to reflect a combination or stigma, structural barriers, and other attitudinal barriers to care, including “I might be given medicine that would interfere with my ability to do my job” (17%) and “It might affect my security clearance” (11%). Happily, only 4% indicated that their leaders “discourage the use of mental health services.”

**Perceived Barriers to Care in Those with and without Psychological Problems**

Table 4, Figure 10, and Figure 11 demonstrate that with one exception, those with psychological problems were significantly more likely to perceive barriers to care, both attitudinal and structural. The only exception to this is the item: “It takes courage to get treatment for a psychological problem”; 20% of those with and 25% of those without a psychological problem disagreed. A likely explanation for this is that this was a reverse-coded item that fell towards the very bottom of a long list of conventionally coded items (and at the very end of the survey).
<table>
<thead>
<tr>
<th>Type of barrier</th>
<th>Without psychological problem</th>
<th>With psychological problem</th>
<th>Overall sample</th>
<th>p value (χ² test)</th>
<th>% with undesirable response</th>
<th>Type of barrier</th>
</tr>
</thead>
<tbody>
<tr>
<td>My unit leadership might treat me differently</td>
<td>27.8%</td>
<td>53.5%</td>
<td>29.9%</td>
<td>&lt; 0.001</td>
<td>Stigma</td>
<td></td>
</tr>
<tr>
<td>I would be seen as weak</td>
<td>24.8%</td>
<td>51.9%</td>
<td>27.0%</td>
<td>&lt; 0.001</td>
<td>Stigma</td>
<td></td>
</tr>
<tr>
<td>Members of my unit might have less confidence in me</td>
<td>27.4%</td>
<td>50.4%</td>
<td>29.3%</td>
<td>&lt; 0.001</td>
<td>Stigma</td>
<td></td>
</tr>
<tr>
<td>It takes courage to get treatment for a psychological problem*</td>
<td>25.7%</td>
<td>20.2%</td>
<td>25.2%</td>
<td>0.167</td>
<td>Other attitudinal</td>
<td></td>
</tr>
<tr>
<td>It would harm my career</td>
<td>19.1%</td>
<td>42.6%</td>
<td>21.1%</td>
<td>&lt; 0.001</td>
<td>Stigma</td>
<td></td>
</tr>
<tr>
<td>It would be too embarrassing</td>
<td>15.2%</td>
<td>41.9%</td>
<td>17.5%</td>
<td>&lt; 0.001</td>
<td>Stigma</td>
<td></td>
</tr>
<tr>
<td>There would be difficulty getting time off work for treatment</td>
<td>16.4%</td>
<td>35.9%</td>
<td>18.0%</td>
<td>&lt; 0.001</td>
<td>Structural</td>
<td></td>
</tr>
<tr>
<td>My leaders would blame me for the problem</td>
<td>9.1%</td>
<td>33.3%</td>
<td>11.1%</td>
<td>&lt; 0.001</td>
<td>Stigma</td>
<td></td>
</tr>
<tr>
<td>Mental health professionals do not come to my location often enough</td>
<td>11.6%</td>
<td>32.6%</td>
<td>13.3%</td>
<td>&lt; 0.001</td>
<td>Structural</td>
<td></td>
</tr>
<tr>
<td>I don't trust mental health professionals</td>
<td>14.7%</td>
<td>31.5%</td>
<td>16.1%</td>
<td>&lt; 0.001</td>
<td>Other attitudinal</td>
<td></td>
</tr>
<tr>
<td>I might be given medicine that would interfere with my ability to do my job</td>
<td>16.2%</td>
<td>31.0%</td>
<td>17.4%</td>
<td>&lt; 0.001</td>
<td>Mixed</td>
<td></td>
</tr>
<tr>
<td>The Army supports soldiers who have mental health problems*</td>
<td>20.8%</td>
<td>30.2%</td>
<td>21.6%</td>
<td>0.013</td>
<td>Other attitudinal</td>
<td></td>
</tr>
<tr>
<td>It is too difficult to get to the location where the mental health specialist is</td>
<td>11.5%</td>
<td>27.9%</td>
<td>12.9%</td>
<td>&lt; 0.001</td>
<td>Structural</td>
<td></td>
</tr>
<tr>
<td>A fellow service members mental health problems are none of my business</td>
<td>18.5%</td>
<td>27.1%</td>
<td>19.2%</td>
<td>0.017</td>
<td>Other attitudinal</td>
<td></td>
</tr>
<tr>
<td>Getting mental health treatment should be last resort</td>
<td>13.3%</td>
<td>25.6%</td>
<td>14.3%</td>
<td>&lt; 0.001</td>
<td>Other attitudinal</td>
<td></td>
</tr>
<tr>
<td>I would have to go too far to get treatment</td>
<td>9.0%</td>
<td>25.0%</td>
<td>10.4%</td>
<td>&lt; 0.001</td>
<td>Structural</td>
<td></td>
</tr>
<tr>
<td>It is difficult to get an appointment</td>
<td>5.8%</td>
<td>22.5%</td>
<td>7.2%</td>
<td>&lt; 0.001</td>
<td>Structural</td>
<td></td>
</tr>
<tr>
<td>Mental health services aren’t available</td>
<td>5.3%</td>
<td>22.5%</td>
<td>6.8%</td>
<td>&lt; 0.001</td>
<td>Structural</td>
<td></td>
</tr>
<tr>
<td>Psychological problems tend to work themselves out without help</td>
<td>12.8%</td>
<td>20.9%</td>
<td>13.5%</td>
<td>&lt; 0.001</td>
<td>Other attitudinal</td>
<td></td>
</tr>
<tr>
<td>It might affect my security clearance</td>
<td>10.0%</td>
<td>20.2%</td>
<td>10.8%</td>
<td>&lt; 0.001</td>
<td>Mixed</td>
<td></td>
</tr>
<tr>
<td>I don’t know where to get help</td>
<td>6.7%</td>
<td>14.7%</td>
<td>7.3%</td>
<td>&lt; 0.001</td>
<td>Structural</td>
<td></td>
</tr>
<tr>
<td>My leaders discourage the use of mental health services</td>
<td>2.8%</td>
<td>14.7%</td>
<td>3.8%</td>
<td>&lt; 0.001</td>
<td>Mixed</td>
<td></td>
</tr>
</tbody>
</table>

*Undesirable response for this item is disagree/strongly disagree
Figure 10
Perceived Stigma in Those with and without Psychological Problems

Figure 11
Perceived Structural Barriers in Those with and without Psychological Problems
**Stigma and Structural Barriers to Care as a Function of Principal Deployment Location**

Figure 12 shows clearly that those in more remote locations were significantly more likely to endorse all six structural barriers to care ($p < 0.001$ by $\chi^2$ test for all). Some of these differences were impressive: Those in semi-isolated and isolated locations were 4.5 and 9.8 times more likely (respectively) to indicate that it would be “too difficult to get to the location where the mental health specialist is.”

In contrast, Figure 13 shows that stigma was similar in the three locations. Only “It would harm my career” was endorsed more commonly in isolated locations ($p = 0.005$ by $\chi^2$ test).

**Figure 12**
Perceived Structural Barriers to Care as Function of Primary Deployment Location

**Figure 13**
Perceived Stigma as a Function of Primary Deployment Location
Mental Health Care System Assessment

Mental Health Staffing and Distribution

There are four Canadian mental health providers deployed to Task Force 3-09 in Afghanistan. The team is comprised of 1 psychiatrist, 1 mental health nurse and 2 social workers. The mental health team is primarily situated in the Role 1 facility in Kandahar Airfield (KAF), with one of the two social workers allocated to the Role 3 facility in KAF (currently under the OPCOM of the US Navy). Using the number of personnel in the sample frame for this study (2779) as the size of the CF population served by these providers suggests an overall ratio of about 1 mental health providers to every 556 CF members. In comparison, the overall ratio for the US for mental health personnel was 1 per 1123 deployed personnel in Afghanistan {Office of the Surgeon General, 2009 6405 /id}. Excluding the large numbers of non-credentialed psychiatric techs used by the US (but not the CF), the ratio was 1 clinician per 2194 deployed personnel.

Clinician Workload

[We need to cover this—otherwise we can’t substantiate the request for additional staffing for outreach and to identify the mismatch between the survey responses on utilization and the data from the providers/clinics. In addition, we need to come back to this as an indicator of data quality issues…]

Standards of Clinical Care

The standards for mental health care in theatre were unanimously described as clear, as were the standards for clinical documentation in theatre. Overall it was felt that commanders were satisfied with the amount of information that the mental health team could provide although a minority disagreed and expressed a concern that some commanders (specifically those based at the Provincial Reconstruction Team [PRT] site) always wanted more. While all members felt that the standard for how much patient information they could share with commanders was clear to them, some felt that this was not always clear to commanders or to some other members of the medical team. This was thus an issue that required constant education and expectation management. There were a few instances described in which members of the mental health team encountered ethical quandaries surrounding confidentiality of medical information, but in all instances the members involved felt confident in their ability to respond to these.

Coordination of Services

All respondents felt that there was good coordination of mental health activities with chaplains and other primary care providers. This impression was confirmed by independent interviews with one chaplain and several primary care providers. Cooperation with chaplains in providing outreach was singled out as being particularly excellent as there was frequent coordination between chaplains and mental health providers.

Additionally, one respondent indicated that coordination might have been better facilitated if the mental health team had been integrated earlier into the pre-deployment training conducted in Wainright, Alberta.
Skills and Training

All mental health providers were confident in their ability to help CF members adapt to the stressors of combat/deployment, evaluate and manage CF members with suicidal thoughts or behaviours, evaluate and treat CF members with substance abuse or dependence, evaluate and treat Operational Stress Injuries, and evaluate and treat victims of sexual assault. There was also a strong consensus that mental health clinicians covering HLTA need to have the same training and skills base as other clinicians if they are to perform effectively and efficiently.

Specific elements or additions to pre-deployment training that were identified included: greater practice on convoy drills and perhaps the inclusion of some physical trauma refresher training for mental health nurses along the lines of the Tactical Combat Casualty Care Course. With respect to Reserve mental health personnel, it was commented that consideration might be given to provide an additional training course that would target the specific skill sets expected of them on deployment.

Stigma and Barriers to Care

Respondents unanimously felt that there was strong support of the medical leadership for mental health outreach while support of unit leadership for mental health activities was seen as being more variable and largely based on the perspective of the Company Commanders for that activity.

[We need some specific comments here on how much outreach actually occurred.]

Most felt that the adequacy of transportation was the leading barrier to conduct outreach activities. While this may initially be explained on the basis of operational demands for this resource, it was generally felt that the chaplains rarely had a problem getting such transportation. This was an impression supported by the one chaplain interviewed.

Communication between mental health providers and supported units was see as good for those units inside the wire but was limited for those units outside the wire and rare for units situated in patrol bases.

Opinions varied about whether the comfort level of CF members talking to mental health personnel about their problems posed a barrier to care. Most acknowledged that this was still a significant issue but is generally better than it was before. Moreover, lack of privacy in small places such as some of the patrol bases was perceived to potentially prevent people from seeing mental health personnel.

Most respondents believed that lack of familiarity with supported units’ leadership and personnel posed a potential barrier to care. They felt that the chaplains did not have this problem because their traditional role embedded in the unit and their “ministry of presence” made it easier for members to approach them with problems. Alternatively, a minority opinion was expressed that individuals would be more likely to approach someone seen as removed from their leadership who would be more impartial.

There was unanimity that the level of danger in travelling to supported units was not seen as an obstacle insofar as that did not preclude their willingness to travel. It was acknowledged that it does interfere with the opportunity of obtaining transportation and
no mental health team member indicated a lack of desire to perform outreach. Indeed, all were enthusiastic about this activity.

Many respondents felt that mental health personnel aren’t adequately trained to conduct outreach activities and that there are no clear protocols for what should be done during outreach. Responses were mixed about their beliefs in the effectiveness of outreach activities. Many felt that it is effective and they should be doing it more. One respondent characterized it as follows: “We think that responding to an event is effective but hunting for business is probably not effective although it is well received.”

Generally it was felt that commanders supported mental health providers’ recommendations for evacuation although it was acknowledged that compassionate repatriations often got more pushback than those recommended on medical grounds. Most felt that commanders respect patient confidentiality when it comes to mental health issues.

When questioned about the sufficiency of mental health assets in theatre to cover the mission across the area of responsibility, respondents were unanimous that the addition of one more provider to the Role 1 team would optimize their ability to conduct outreach and maintain on call coverage at the Role 1 facility in KAF.

Personal Well-being

All respondents described their personal morale, energy level and motivation quite high. None of the respondents identified any of the items listed in Part E1 as impacting their ability to do their jobs.

The only additional equipment/supplies identified that would be useful to have a library of standard reference texts available at the Role 1.

Mental Health Team’s Proposed Recommendations

1. Consideration should be given to the allocation of 1 additional MH provider to the Role 1 in order to facilitate the delivery of outreach on a continual basis;

2. Policies and procedures for the conduct of MH outreach needs to be developed and refined and all MH team members need to be trained on this prior to deployment.

3. Standardization of the skill sets for clinicians covering HLTA and deploying Reserve providers need to be reviewed and augmented, if needed.

DISCUSSION

Summary of Key Findings

OMHA Survey

1. An important minority (8.5%) of deployed personnel exceed CF screening thresholds for acute traumatic stress, major depression, or generalized anxiety.

2. A much larger fraction (31%) reported suffering a stress, emotional, alcohol or family problem during the deployment.
3. 12% of deployed personnel perceived that stress or emotional problems had interfered with their work over the previous 4 weeks. Occupational interference was much more common in those who screened positive for psychological health problems compared to those who screened negative (46% vs. 9%). However, two-thirds of those with perceived impairment were in the group without an apparent mental disorder.

4. There is a strong association of combat exposure to the presence of psychological problems.

5. The prevalence of psychological problems is significantly greater in more isolated settings. This is fully accounted for by the higher combat exposure in these settings.

6. Perceived sleep deficits were strongly associated with psychological problems and perceived work dysfunction.

7. Home front-stressors were also associated with psychological problems.

8. There was no statistically significant increase in the risk of mental health problems with increasing numbers of deployments.

9. Most of those who screened positive for psychological problems or who reported having experienced a stress, emotional, alcohol or family problem during the deployment did not seek care.

10. Only a minority of those with psychological problems (26%) were currently interested in getting help. Conversely, more than half of those interested in getting help were in the group without psychological problems. Lack of awareness of a psychological problem accounted for about one-third of cases of those with psychological problems who were no interested in receiving care.

11. A broad range of attitudinal and structural barriers to mental health care were reported. Those with psychological problems perceived more barriers to care.

12. Those with psychological problems in more isolated areas perceived more structural barriers to care.

The key findings of the mental health provider interviews were as follows:

13. The allocation of 1 additional mental health provider to the Role 1 would be required in order to facilitate outreach to forward areas on a continual basis.

14. Policies and procedures for the conduct of mental health outreach were seen to be lacking.

15. Reservists and clinicians providing HLTA back-fill need to have the same skill set and preparation as other clinicians.

Comparison with Other Research Findings

Mental Health Problem Prevalence Rates

Methodological and contextual differences make it difficult to compare rates across studies in a reliable way. For research studies on the mental health effects of
deployments, important differences to consider include {Ramchand, 2010 6825 /id;Richardson, 2010 6834 /id}:

1. The nature of the population studied (e.g., the whole military population, just one service, just those who deployed, etc.);
2. Whether or not the data collection was anonymous;
3. The timing of data collection relative to the deployment cycle;
4. The nature of the military operation and the specific experiences (e.g., level of combat exposure) of the study cohort;
5. Secular trends in prevalence rates within the military and the general population;
6. The distribution of important covariates (e.g., age, sex) in the study populations;
7. The duration of the deployment;
8. Number of previous deployments;
9. The specific psychometric instruments used (and their cut-offs);
10. Cultural differences from nation to nation, from service to service, from brigade to brigade, etc.; and
11. Differences in the structure and delivery of mental health services.

The CF’s post-deployment screening process uses very similar instruments and cut-offs as used in the OMHA. For those who deployed in support of the current mission in Afghanistan, the prevalence of PTSD, depression, or generalized anxiety at the less-stringent cut-off used in the OMHA is slightly lower post-deployment than intra-deployment (Figure 15). Note that the post-deployment screening process is not anonymous and that the population represented is broader than just those deployed to Kandahar (who were the subjects of OMHA-I).

Comparison with US MHAT-VI prevalence rates from Afghanistan are shown in Figure 16. To optimize comparability, this uses the “more stringent” cut-offs for all conditions. It is clear that the US rates are far higher, and this difference is likely due to important differences in the study populations that are known to contribute to higher mental health problem prevalence rates:

1. The much longer deployment duration in the US sample;
2. The shorter “dwell time” (time between deployments) in the US sample; and

Thus, it is important not to interpret these large differences to mean that CF personnel are intrinsically more resilient than US soldiers.

Association of Psychological Problems with Co-variates

Consistent with all of the MHAT’s and with other research, we confirmed the strong relationship between combat exposure and psychological problems. We could not locate any other data to confirm on the association we found of home-front stressors and intra-
deployment psychological problems. However, extensive research from other settings has also shown such an association.

We found a trend towards somewhat more psychological problems in those with multiple tours, but this difference was not statistically significant. Recent analysis of CF post-deployment screening data does show a statistically significant though small association between increasingly number of career tours and post-deployment mental health problems: Each additional tour increased the risk of PTSD and/or depression by about 0.2 percentage points. In contrast, data from the US MHAT’s confirms a very strong relationship with number of tours: Those with two tours had a 4.5 percentage point increase in the prevalence of any psychological problem (at the more stringent cut-off), and those with one more tour had an increase in prevalence of an additional 12.9% percentage points {Office of the Surgeon General, 2009 6405 /id}. While the OMHA-I sample size was modest, it would have readily detected a difference of this magnitude had it been present.

**Perceived Stigma and Barriers to Care**

Our finding of more perceived attitudinal and structural barriers to care in those with psychological problems is similar to that seen in other research studies {Gould, 2010 6908 /id; Hoge, 2004 1539 /id}. The CF’s 2008/2009 Health and Lifestyle Information Survey (HLIS) included a large section on stigma and barriers mental health care. Comparison with these findings is however difficult because of significant differences in the structure of the survey. HLIS only asked about barriers in those who had perceived unmet need over the previous year, whereas OMHA asked about attitudes towards care in all respondents. HLIS used a different list of potential barriers (largely taken from civilian studies {Wang, 2006 4435 /id}). In addition, HLIS items had only dichotomous response categories (yes/no).

With those limitations in mind, several similarities and differences are apparent:

1. First, both surveys (and other studies {Sareen, 2007 2571 /id; Fikretoglu, 2008 5799 /id}) found that only a minority of those with apparent problems had sought care.

2. In addition, HLIS (and other studies {Sareen, 2007 2571 /id; Fikretoglu, 2008 5799 /id}) documented lack of perceived need for care in a sizable fraction of those who had apparent psychological problems: In HLIS, two-thirds of those who were currently distressed did not recognize any unmet need. This is similar to the OMHA-I finding of few distressed individuals being interested in care.

3. The most prevalent reason for unmet need in HLIS was that respondents preferred to manage their problems on their own (as opposed to turning to professional help). This barrier was unfortunately not assessed in OMHA-I.

4. Stigma and other attitudinal barriers were prevalent in both HLIS and in OMHA-I.

5. Finally, structural barriers were distinctly uncommon in HLIS, which was done on an in-garrison sample. This is similar to the findings noted in OMHA-I.
participants in non-isolated locations, but it was quite different from the prevalent structural barriers seen in forward areas.

Attitudes to mental health care were also assessed among Kandahar-based personnel from previous rotations who participated in the Third-location Decompression (TLD) program in Cyprus. The same stem and some of the same items were included in the evaluation form that participant completed at the end of the program. As shown in Figure 14, OMHA-I respondents tended to have less favourable attitudes than TLD participants.

This difference could be due to different deployment experiences of the two cohorts, though this seems unlikely based on knowledge of the situation on the ground over the past few years. The capture rate for the TLD survey was far better (more than 90%), so selection bias in the OMHA-I sample is possible in theory.

It is also entirely conceivable that these findings reflect the dependence of attitudes towards mental health care on the context in which these are assessed. To the extent that psychological distress appears to increase negative attitudes towards mental health care, the presumably lower distress levels on TLD compared to those at mid-deployment is likely a factor. Attitudes towards care may also be context dependent: For example, soldiers might believe that they would be perceived as weak if they sought care during deployment but not afterwards. Finally, the TLD participants had just completed mental health training that was intended in part to reverse negative attitudes towards care.

More than anything else, the apparent context-dependent differences in attitudes towards mental health care suggest that these may be influenced by changes in the physical and social environment and, perhaps, by educational programming. Indeed, one of the most commonly endorsed benefits of TLD was that it helped participants realize that “there is nothing wrong with seeking care for mental health problems.”
Figure 14
Comparison of Attitudes towards Mental Health Care from OMHA-I and Previous Rotations of TLD Participants

Figure 15
Comparison of OMHA-I and Post-deployment Screening Prevalence Rates

Figure 16
Comparison of OMHA-I Prevalence Rates with Those from US MHAT-VI (Afghanistan)
Prevalence rate

- Traumatic stress
- Generalized anxiety
- Any

- OMHA-I (using "more stringent" cut-off)
- MHAT-VI, Afghanistan, Maneuver Troops
- MHAT-VI, Afghanistan, Support/Sustain Troops

[I need to fix the labels on the X axis of this graph…]
**Study Limitations**

The response rate of 57% may be considered low by standards set for national civilian surveys but reflects the reality of survey administration in a deployed setting. Although the total number of completed surveys (1572) is modest, the high capture of those in more isolated settings is a strong aspect of this study.

The modest sample size and relatively low prevalence of the primary outcome precluded in-depth statistical modelling to look for the independent contributions of various factors to psychological well-being. Additional data collection from subsequent rotations will, however, permit this in the future.

Self reporting of symptoms and perceived impairment has limitations if respondents don’t reply truthfully or lack sufficient insight to answer faithfully. Reporting of utilization rates may also be inaccurate for similar reasons, and the mismatch between the reported utilization rates and the workload reported by clinicians means that this finding in particular should be interpreted with caution. Nevertheless, the fundamental finding that only a minority of those with apparent psychological problems will seek care for them is entirely consistent with other work.

Several respondents raised the concern that although the surveys were anonymous, the fact that they were administered at the unit level and were not sealed at completion meant that Chain of Command could in theory review the questionnaire. This could have influenced the responses of some participants.

There were clearly some data quality issues in this survey, particularly on the questions on stigma and barriers to care items. However, these problems still only affected at most 11% of the responses.

The instruments used to measure the presence of symptoms of acute stress, depression and anxiety have never been validated against a gold-standard clinical interview in the deployed setting. Without such validation, we can’t know whether the less stringent cut-offs used in the OMHA are a better or worse reflection of need than the more stringent cut-offs used in the US MHAT’s. However, our data showed substantial numbers of screen-negative people who acknowledged a psychosocial problem, were interested in receiving help, and perceived occupational impact of their problem. For this reason, we believe that even our less stringent cut-off underestimates the fraction of people who could benefit from some sort of additional psychological support while deployed.

The intended timing of the in-theatre HDO survey is at the mid-point of the deployment. However, logistical issues delayed the administration so that participants were typically in their fifth month of their deployment. Data from the US clearly shows that symptom prevalence increases month by month over the course of a deployment. As a result, comparison of the findings of this OMHA with future iterations done earlier in the deployment will be constrained.

The cross-sectional nature of OMHA survey precludes cause and effect interpretations of associations, such as that seen between combat exposure and psychological problems. Nevertheless, studies using a longitudinal design {Wells, 2010
have also shown these associations, suggesting that they are indeed causal.

The OMHA-I findings apply only to those deployed to Kandahar over the study period. Numerous CF members have contributed to the overall mission in Afghanistan but have done so while physically located elsewhere (usually in the Middle East or in the Persian Gulf), where the need for mental health services (and the barriers to them) are likely to be different.

Finally, it must be recognized that a single rotation is not a sufficient sample base in order to determine if the observations remain stable. Again, this will become clear with future OMHA’s. The qualitative findings from the mental health team are subject to bias in terms of reporting and interpretation, and the findings may also be peculiar to the personalities involved and the circumstances at the time as opposed to reflecting durable and reproducible phenomena.

**Clinical and Policy Implications:**

*The Right Measure of Need for Psychological Care in Deployed Settings*

The provision of clinical services for psychological problems in an operational setting will always use a system of triage where priority is given to those who are most in need. The use of stringent cut-off points in disease specific screening tools for acute stress, depression and general anxiety provides a conservative estimate of those who are most in need of some form of clinical intervention. However, such cut-offs fail to identify the broader group of individuals who have a burden of psychological symptoms that do not meet a screening threshold but may still benefit from some form of psychological support. Indeed, our observation that two-thirds of those with perceived occupational dysfunction were in the group that screened negative even at our “less stringent” cut-off supports this. It is presumably this group (rather than the fraction that scores above a particular cut-off on a psychometric test) that will be of interest to Commanders and also constitutes a larger base towards which other public health interventions can be targeted.

*The Right Kind of Psychological Help in Deployed Settings*

If one accepts the merit of this broader conceptualization of need for psychological help in military organizations, it is fair to ask: “What precise sort of ‘psychological help’ does this broad group of individuals need?” The appeal of using more stringent, clinically-oriented cut-offs is that these have clear implications as to the potential benefits of clinical help. That is, those who test positive likely have a condition for which specific, clinical interventions have been shown to be helpful. For those with an overt psychiatric disorder, effective care clearly improves both well-being and occupational functioning.

Most of those occupationally-impaired individuals who screened negative at the OMHA cut-off likely had sub-clinical levels of distress. Firm evidence of benefit of clinical care in this group is extremely limited, largely because this has been little-studied. There are, however, many good reasons to believe that short-term psychotherapy of the sort that is effective in full-blown disorders will also benefit those with sub-clinical variants. Improvements in well-being achieved by such care are likely to translate into restoration of occupational functioning.
But there is also emerging evidence of the power of non-clinical interventions to enhance well-being, in those with and without clinical disorders. Examples include positive psychology exercises, meditation, physical activity, expressive writing, bibliotherapy, computer-directed cognitive-behavioural therapy, and at least some psychoeducational interventions (such as the US Army’s BATTLEMIND training program {Adler, 2009 /id}). The right kind of social support can, in and of itself, have a restorative effect on well-being and functioning even in the absence of any psychologically-oriented content. In military organizations, certain leader behaviours have been shown to be associated with better well-being and functioning among subordinates {Britt, 2004 /id}.

The large size of the subclinical but occupationally-impaired individuals and the challenges of delivering clinical services to remote areas make non-clinical approaches especially appealing in deployed settings. Clinicians can, of course, play an important role in triage and in the selection, delivery, and evaluation of such non-clinical “care.” The important association between home-front stressors and the well-being of deployed personnel suggests that interventions that target these will also have a favourable effect on operational effectiveness. Such interventions could be targeted at the deployed personnel or at their family members.

Much has been written about the interrelationship between sleep deprivation and military performance on operations. Despite an enormous body of literature on the importance of sleep management on operations {Wesensten, 2006 /id} (and a strong emphasis on its importance in leader education), impactful sleep deficits are pervasive in the deployed environment {Peterson, 2008 /id; Weeks, 2010 /id}. Sleep deficits are believed to be both a cause and an effect of mental disorders, and they clearly are a strong mediator of dysfunction in those with mental disorders. Thus, more attention to optimization of sleep by commanders would be expected to lessen the overall impact of mental disorders on performance while deployed.

Overcoming Stigma and Other Attitudinal Barriers to Care in Deployed Settings
The CF is developing a comprehensive mental health education approach under the guidance of the Mental Health Education Advisory Committee. Content is delivered across the career and deployment cycle using members of the Joint Speakers Bureau, which uses a combination of trained clinical and non-clinical presenters.

One key objective of the curriculum is to overcome barriers to care by:

- Enhancing mental health literacy: This helps individuals recognize when they need care, how to get help, and what to expect in care.

- De-stigmatizing mental disorders: This is a natural continuation of the educational efforts of the OSISS program.

- Challenging other common attitudinal barriers to care: For example, concerns about confidentiality and career impact are addressed, along with beliefs along the lines of “mental health care doesn’t work” or “mental health treatment should be a last resort.”

There is no reason to believe that a fundamentally different approach to these objectives is required in the deployed vs. non-deployed environments. However,
required pre-deployment mental health training is an opportune time to reinforce these fundamental messages.

**Overcoming Structural Barriers to Care in Deployed Settings**

There are formidable logistical barriers to the provision of clinical mental health services on deployed operations, particularly in more isolated locations. Then again, there are formidable logistical barriers to providing *everything* needed for military operations in remote settings. When resources are judged to be operationally essential by commanders, ways are found to overcome these barriers (albeit sometimes at great cost and risk). For those who have a disorder causing significant impairment, clinical evaluation and (usually) treatment are required. This requires that the patient and a competent clinician connect in some way for long enough for a diagnosis to be made and an effective treatment plan implemented.

Unfortunately, the limited perceived need for professional care suggests that simply finding a way to get clinicians into isolated areas on a regular basis would do little to reverse the impact of psychological problems on well-being and functioning. The limited privacy available in isolated locations would prove to be particularly problematic, given the prominence of concerns about being treated differently by leaders, being perceived as weak, or suffering from a loss of confidence of others in the unit. Under present circumstances, the details of care can be kept confidential, but the fact of care would be difficult to conceal.

**Application of Self-care for Distress and Psychological Problems during Deployment**

The predictable and repeated exposure to adversity during deployment (particularly for those in forward areas) and the difficulty in delivering clinical care on deployment make self-care a particularly appealing option. This might be used as a preventive intervention, as a remedy for sub-clinical levels of distress, as a temporizing measure for those with clear clinical needs, or as an adjunct to formal care. The CF mental health curriculum is incorporating the most promising sorts of self-care into its mental health training. Some of these are introduced or reinforced as part of the pre-deployment mental health training package. Unfortunately, there are few educational approaches of proven efficacy to offer, so the CF’s approach is evidence-informed as opposed to being truly evidence-based.

Providing (or reinforcing) these tools pre-deployment makes more sense than doing so in the heat of the battle. However, the pre-deployment period is characterized by many distractions and, anecdotally, a sense of invincibility. Hence, this training may not sink in for everyone who needs it. For this reason, an argument can be made for reinforcing this training in some way during the deployment, at which time its salience may be more apparent to the recipients.

**Improving the Quality of Mental Health Care in Deployed Settings**

Most of those who indicated that they had sought mental health care while deployed were satisfied with the quality of care while deployed. But a quarter of those who sought care were dissatisfied with their care. It is not clear if this dissatisfaction rate is different from that seen in garrison or in other settings due to the limited number of individuals who reported having sought care in the OMHA. Some dissatisfaction with care is seen in
all settings—not all customers will be satisfied with any service. Nevertheless, valuable opportunities for improvement may exist.

A Comprehensive and Integrated Approach to Clinical Outreach to Isolated Locations

We argue above that simply finding a way to get clinicians into forward areas is unlikely to reverse unmet need for care in and of itself. What is needed is a comprehensive and integrated approach that brings together all of the potential strategies detailed above.

Creative alternatives to outreach also need to be considered. For example, the delivery of mental health care by video-teleconference is gaining traction. Establishing this capability might be easier, safer, and more efficient than having clinicians travel to forward locations. Computer-guided treatment for common problems (likely acute traumatic stress, depression, and anxiety) could be offered. Enhancement of routine screening for mental health problems by primary care providers could help increase the awareness of need on the part of the patient. The success of routine screening for depression in primary care makes this seem promising {US Preventive Services Task Force, 2004 1570 /id}. Primary care providers might also benefit from training in basic mental health assessment and psychotherapeutic techniques that are practical in a deployed environment. Broader (but still judicious) initiation of psychiatric medications should also be considered. Use of medications that bring rapid symptom control (e.g., hypnotics) is particularly appealing.

Delivering just-in-time education on the transition and reintegration process during Third-location Decompression (TLD) in Cyprus has proven to be a surprisingly effective approach, and it appears to also have triggered care-seeking during TLD. After each educational session, a few participants often approach the clinician for one-on-one, informal consultation. This approach might also work for clinician-delivered, just-in-time psychoeducation for personnel in forward areas.

Adjustment of conventional therapy schedules to the deployed environment would also be beneficial: The usual approach of one appointment per week for 10 weeks may not be ideal or even realistic. If the primary goal is to reverse occupational dysfunction to assure the safety and success of the operation, then an intensive, rapid approach to therapy would have greater appeal. An extra six weeks of modest impairment in garrison will likely have little impact on the organization, while the same six weeks of impairment for someone deployed to a forward area could make the difference between the success or failure of the operation.

The above list of innovations is not meant to be exhaustive. Instead, it is meant to give a sense of some of the ways that the unique challenges posed by the delivery of mental health services in forward areas might be met. The US military is actively researching some of these approaches, and results are expected over the next few years.

If outreach is to be done, sufficient human resources need to be available to assure that this does not interfere with delivery of care in less forward areas. This might well require tasking of additional personnel, as suggested by the clinicians that were interviewed during the OMHA. Sending clinicians out to remote areas to “drum up business” will be counterproductive if it leaves those with known mental health care
needs in non-isolated areas without clinicians to provide therapy. In addition, specific guidelines on how to conduct outreach would need to be developed, and adequate training on the application of these guidelines would need to be provided to deploying clinicians.

*Chain of Command Involvement*

Successful delivery of care to forward areas will require enduring and committed support of the operational chain of command. This is particularly relevant in the provision of transport that is required for clinicians to access forward areas. In addition, the climate that each leader sets can either facilitate or erode the effectiveness of outreach efforts. If personnel get the message that they are not to see the clinician when he or she shows up (this does happen), outreach efforts are likely to be a waste of time and an unjustifiable risk. Assuring buy-in of leaders is not a one-time exercise: It is a battle that needs to be fought brigade by brigade, roto by roto, unit by unit, and section by section over a long period of time. The two most important facilitators of buy-in will be the direction set by senior leaders and, perhaps even more importantly, strong, trust-based relationships among medical staff, mental health providers, and the operational chain of command.

The risks and costs of transport would need to be carefully weighed before a decision to do routine outreach is made. Treatment of mental disorders is important and valuable, but it is not the only consideration.

*Research Implications*

The OMHA methodology has proven to be an effective way to get rich and detailed data on need and barriers to care in deployed personnel. The response rate is high enough that the prevalence estimates are likely to be sufficiently reliable for decision-making about how to better structure the delivery of mental health on deployments. Most importantly, the survey achieved good representation of personnel in forward areas.

The survey largely measured the right constructs. However, additional detail in a few areas would be helpful:

- The measure of occupational impairment is relatively crude: It consists of three yes/no items with face validity that we turned into a dichotomous outcome variable. A more precise scale is needed that better reflects the reality that occupational impact is a continuous (not dichotomous) phenomenon.
- A question or two on the perceived adequacy of mental health training for managing deployment-related stress would be helpful for the evaluation of our rapidly expanding mental health training program. There is evidence that those who receive pre-deployment mental health training have significantly better mental health than those who did not receive it.
- The list of barriers to mental health care did not include an item reflecting the preference to manage one’s problems on one’s own. On the 2008/2009 Health and Lifestyle Information Survey (HLIS), this was the leading barrier endorsed by those who recognized unmet need for care.
The recall periods for some of the questions are not congruent with one another, which leads to difficulty in interpreting some of the results. For example, the question on having a perceived psychosocial problem specifies a recall period of “over the course of your current deployment,” while the question on interest in receiving care specifies being “CURRENTLY interested in receiving help…” For this reason, it can’t be determined whether the problem in question had resolved (and hence no care was required) or if the problem persisted but various barriers prevented the respondent from accessing it.

Assessment of age and sex in the socio-demographic section of the questionnaire will add to the rigour of the epidemiological analysis and will help others interpret the results.

The survey could be shortened slightly by eliminating underperforming items, removing items that are not being used for analysis, or eliminating redundancies in some items (e.g., many of the stigma items appear to be measuring the same fundamental construct).

Data quality issues are harder to address: Shortening and reformatting the survey slightly won’t hurt, but it is unlikely to make an enormous difference. Better “selling” of the survey (to invest participants more in it) would probably help, but the administration model for the HDO doesn’t permit that. For the time being, some data quality issues are likely to be a largely unavoidable problem for the OMHA. These do not appear to be so severe as to invalidate the results of the survey.

The OMHA-II survey has just returned from the field, and the foregoing analysis will be repeated in order to assure that the findings generalize to at least one more roto. Together these findings will form the basis of a publication in a scientific journal. Additional analysis of the data (in particular, looking at organizational factors that appear to influence mental health and barriers to care) will follow over the coming months; this work will be done by DGMPRA in consultation with DGHS personnel.

Thoughtful efforts at quality improvement in mental health care require a rich understanding of the drivers of dissatisfaction and of the objective quality of care delivered. Research targeting these is essential, though exploring these for in-garrison care should be a higher priority given the much larger fraction of care delivered there. It is likely that the beneficial effects of quality improvement efforts in garrison will spill over into deployed settings.

**Conclusion**

The OMHA provides the first clear picture of the prevalence of psychological health problems, the need for mental health services, and the perceived barriers to mental health care on a large, challenging CF operation. Findings are largely similar to in-garrison findings:

- An important minority of members have apparent psychological problems.
- Only a minority of those with problems seek care for them.
- A broad range of attitudinal barriers to care are reported.
♦ Stigma is only one of a number of attitudinal barriers to care.
♦ Those who do seek care are largely satisfied with it.

There is, however, one key difference: Structural barriers to care are at most a minor problem in garrison (and in non-isolated areas in Kandahar), but they appear to be a major problem in more isolated areas. This reflects the reality that services are genuinely difficult to access there. These barriers are particularly impactful because need is clearly concentrated in the more forward areas, where care is least accessible.

The OMHA also makes it clear that simply doing clinical outreach into more forward areas is not the solution. Instead, such outreach needs to be accompanied by efforts to reinforce self-care, enhance the awareness of the need for care, increase the acceptability of care, and ensure the effectiveness of care delivered. Putting these efforts into place will take time. Ideally, the CF will have a comprehensive approach to mental health care in place by the time of its next major international mission.
ANNEX A
HDO Survey, Including OMHA

[We should get a clean copy of the whole thing from Gary Ivey]
ANNEX B
Questions for Structured Interview of Mental Health Providers

A Standards
1. How would you describe the standards for MH Care in theatre?
2. How would you describe the standards for clinical documentation in theatre?
3. Do you feel commanders are satisfied with the amount of information you can provide?
4. Have you encountered situations involving medical ethics in this theatre to which you did not know how to respond?
5. Is the standard for how much patient information you can share with commanders clear?

B Coordination
1. Do you get the resources you need from CFHS HQ to conduct your MH mission?
2. Are you encouraged by CFHS HQ to provide feedback/comments in theatre commanders on MH policies?
3. Do you coordinate your MH activities with the Chaplains?
4. Do you coordinate you MH activities with other primary care providers in Theatre?

C Skills and Training
1. Please describe your confidence in your ability to do the following:
   a) Help CF members adapt to stressors of combat/deployment;
   b) Evaluate and manage CF members with suicidal thoughts/behaviors;
   c) Evaluate and treat CF members with substance abuse/Dependence;
   d) Evaluate and treat Operational Stess Injuries;
   e) Evaluate and treat victims of sexual assault.

D Stigma and Barriers to Care
1. Please discuss whether in your opinion any of the following contribute to stigma or barriers to care:
   a) Support of medical leadership for MH outreach;
   b) Support of unit’s leadership to MH activities;
   c) Adequacy of transportation to conduct outreach activities;
   d) Adequacy of communication between MH and supported units
   e) Comfort level of CF members talking to MH personnel about their problems;
   f) Lack of familiarity with supported unit’s leadership and personnel;
   g) Level of danger in travelling to supported units
   h) Difficulty of arranging travel to supported units
   i) MH personnel don’t like to perform outreach services;
   j) MH personnel aren’t trained to conduct outreach services;
   k) MH personnel don’t think outreach services are effective;
   l) Commanders support MH providers recommendations for evacuation;
m) Commanders respect patient confidentiality when it comes to MH issues;
n) There are sufficient MH assets in theatre to cover the mission across the area of responsibility.

E Personal Well-being
1. Please describe the extent to which any of the following may have impacted your ability to do your job:
   a) stressors of deployment/combat;
   b) mental well-being adversely affected by the events you have witnessed on this deployment;
   c) spiritual well-being adversely affected by the events you have witnessed on this deployment;
   d) becoming less sensitive to the needs of the CF members you serve/support;
   e) your ability to do your job has become impaired by listening to the combat experiences of CF members you’ve talked with while performing your MH mission.
2. How would you describe your personal morale, energy level, level of burnout and motivation?

F Equipment and Supplies
1. What additional equipment/supplies would have improved your ability to complete your MH mission?