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US ARMY PUBLIC HEALTH COMMAND (PROVISIONAL)
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MEMORANDUM FOR COL Jimmie Keenan, Commander, Evans Army Community Hospital, 1650 Cochrane Circle, Fort Carson, CO 80913

SUBJECT: Program Consultation (PROCON) Part I: Retrospective Evaluation of a Mobile Behavioral Health Service in Garrison, Report No. 23-KM-0C93-10, Fort Carson, Colorado, 5-9 April 2010

1. Enclosed is a copy of the U.S. Army Public Health Command (Provisional) [USAPHC (Prov)] report detailing the Program Consultation (PROCON) for Fort Carson's Mobile Behavioral Health Service (MBHS).

2. The point of contact for this report is Dr. Jennifer Piver-Renna, Public Health Researcher, at (410) 436-9283, DSN 584-9283, or email jennifer.piverrenna@us.army.mil.

FOR THE COMMANDER:

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U.S. Army Public Health Command (Provisional)

USAPHC

USAPHC (PROV) REPORT NO. 23-KM-0C93-10
PROGRAM CONSULTATION (PROCON) PART I:
RETROSPECTIVE EVALUATION OF A MOBILE
BEHAVIORAL HEALTH SERVICE IN GARRISON
FORT CARSON, COLORADO
5–9 APRIL 2010

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14. ABSTRACT

The Mobile Behavioral Health Service (MBHS) at Fort Carson, Colorado provides multidisciplinary community behavioral health care to Soldiers in close proximity to their unit area and in close coordination with unit leaders. The U.S. Army Public Health Command (Provisional) (USAPHC (Prov)) conducted a retrospective, mixed-methods evaluation of the MBHS to document the process and determine the impact and effectiveness of the program on Soldiers' Behavioral Health (BH) service utilization, risk level, and deployability. Overall, Soldiers and key unit leaders, especially Company Commanders and First Sergeants, reported high levels of satisfaction regarding accessibility, quality of care, and trust of their MBHS providers. Increased provider capacity resulted in significantly fewer off-post referrals for BH care thereby increasing command visibility of Soldiers seeking BH care. Units supported by MBHS also had significantly fewer psychiatric inpatient admissions, documented risk behaviors, and non-deployable Soldiers for BH reasons than units not supported by MBHS. A cursory cost analysis suggests the MBHS may produce costs-savings especially with regard to the prevention of emergent psychiatric care. The positive findings from this study warrant continuation of the program at Fort Carson. However, given the limitations of study design, USAPHC (Prov) will conduct a prospective evaluation of the MBHS (Part II) within the next six months to document the direct impact of the MBHS on Soldiers' BH well-being and to inform phased replication of this model at other Army installations as appropriate.

15. SUBJECT TERMS
Behavioral health, evaluation, Army, garrison, prevention

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EXSUM USAPHC (PROV) Report No. 23-KM-0C93-10, 5–9 April 2010

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EXECUTIVE SUMMARY
USAPHC (PROV) REPORT NO. 23-KM-0C93-10
PROGRAM CONSULTATION (PROCON) PART I:
RETROSPECTIVE EVALUATION OF A MOBILE BEHAVIORAL
HEALTH SERVICE IN GARRISON
FORT CARSON, COLORADO
5–9 APRIL 2010

1. PURPOSE. The U.S. Army Public Health Command (Provisional) USAPHC (Prov)), formerly the U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM), conducted a retrospective, mixed-method evaluation of the pilot Mobile Behavioral Health Service (MBHS) at Fort Carson, Colorado. The goal of this evaluation was threefold: (1) to describe the MBHS's process and activities, (2) to determine the impact of the MBHS on Fort Carson's capacity to provide behavioral health (BH) care, and (3) to measure the MBHS's effect on Soldiers' risk behaviors and deployment status.

2. PROGRAM DESCRIPTION. The MBHS provides multidisciplinary community BH care to Fort Carson's Soldiers in close proximity to their unit area and in coordination with unit leaders to maximize diagnostic accuracy, remove barriers to care, and improve treatment outcomes. At the core of each Mobile Behavioral Health Team (MBHT) are six credentialed BH providers (two psychologists and four licensed clinical social workers) who are assigned exclusively to a single Battalion (BN) within an individual brigade combat team (BCT). At the time of this evaluation, three MBHTs in various stages of staffing were supporting BCTs of the 4th Infantry Division.

3. CONCLUSIONS.

a. The MBHS program staff described that mission of the program as "pushing military treatment facility (MTF) BH assets as far forward as possible to prevent bad outcomes and to assist Soldiers' return to duty (RTD) whenever possible;" the staff believed this model of BH care delivery was meeting its mission at Fort Carson. Perceived benefits of the MBHS during its first year of implementation included increased accessibility, better relationships between MTF BH providers and unit commanders, creating a single point of contact for BH in a BN, affecting stigma, and increasing commanders' access to important BH information. The biggest gap identified for the MBHS was a lack of prescribing providers that could assist Soldiers with

medication management. Program stakeholders believed that the need for and benefit of forward BH assets in garrison will make long-term sustainability of the MBHS viable.

b. Overall, Soldiers reported high levels of satisfaction regarding the accessibility of their MBHT provider and the quality of care they received through the MBHT. Key unit leaders, especially Company Commanders and First Sergeants, reported positive changes in BH services on post since MBHS implementation and also reported satisfaction with their unit's assigned MBHT provider. Both Soldiers and key unit leaders reported high amounts of trust in the skills of their MBHT provider.

c. During their first 6 months following redeployment, 2nd BCT, 4th Infantry Division (2/4 ID) experienced 73 percent less inpatient psychiatric admissions than 3rd BCT, 4th Infantry Division (3/4 ID). This may be a key indicator of the MBHS's ability to "get out ahead" of Soldiers' emerging BH issues through early identification and rapid treatment. In addition, reducing the number of psychiatric admissions resulted in an estimated cost savings of $1.3 million per BCT during the first year of MBHS implementation.

d. At their respective Reverse-Solider Readiness Processing event, 93 percent less TRICARE off-post referrals were made for 2/4 ID Soldiers than for 3/4 ID Soldiers. Having sufficient provider capacity to keep BH care "in house" may increase MBHT providers 'visibility of Soldiers' progress and their ability to communicate with commanders about Soldiers' dispositions, risk levels, deployability and retainability.

e. The 2/4 ID reported 58 percent less risk behaviors, including suicide attempts and gestures, spouse abuse, sexually transmitted infections (STIs), financial problems, and positive urinalysis than 3/4 ID during the first 6 months following their respective redeployments. Trends in risk behaviors are often indicative of a unit's wellbeing and predictive of mission readiness. Every $2,175 spent on the MBHS prevents one negative behavioral health risk behavior.

f. Prior to deployment, 3/4 ID (which had MBHT support for 7 months) had 62 percent less BH non-deployables than 2/4 ID, which last deployed out of the standard BH care model. Impacting BH nondeployables may have a direct effect on mission readiness, the fighting strength of the unit, and Soldiers' stress as it relates to taking on extra duties. Every $15,200 spent of the MBHS prevents one Soldier from being nondeployable for BH reasons.

4. RECOMMENDATIONS.

a. Given the level of support for the MBHS among Soldiers and key unit leaders at Fort Carson and the positive effect of the MBHTs on inpatient psychiatric admissions,

off-post referrals, unit risk behaviors, and BH nondeployables, USAPHC (Prov) strongly recommends continuation of the program at Fort Carson with the following considerations:

(1) Conduct a comprehensive, prospective evaluation of the MBHS to determine the direct impact of the program on Soldiers well-being to include a formal business case analysis establishing the cost-effectiveness and cost-benefit of the program.

(2) Create a standing operating procedure that delineates core requirements and tasks of an MBHT's structure and providers while allowing flexibility to tailor the process to the assigned unit.

(3) Address gap in medication management capacity of MBHT through coordination with BN Physician Assistant (PA) in the short-term and priority hiring of prescribing providers for long-term sustainability.

(4) Integrate MBHS mission with organic brigade BH assets to coordinate BH care across the Army Force Generation (ARFORGEN) cycle with an emphasis on communication between deployed and garrison environments.

(5) Develop a database to capture trends in BH service utilization and diagnoses within and across MBHTs. Develop standardized reporting procedures to continually monitor trends in BH outcomes of interest, such as psychiatric admissions, risk behaviors, and BH nondeployables.

(6) Increase MBHT capacity to provide preventive education, normalization briefings and training opportunities directly to Soldiers on key BH issues such as combat stress reactions, resiliency, sleep hygiene, and anger management.

b. The positive findings in this report and the potential costs savings of the MBHS warrant replication of this model at other Army installations with the following considerations:

(1) Replication should be phased and incorporate findings from the prospective MBHS evaluation and cost benefit analysis to be conducted within the next six months.

(2) Develop parameters for "right-sizing" the program at other Army installations that may have resources and prominent BH issues different than those at Fort Carson. Right-sizing should be established with consideration of the mission of organic brigade BH assets.

(3) Incorporate a primary prevention focus into MBHT activities to identify and assist Soldiers with compounding life stressors before they become a command or BH issue.

(4) Establish a protocol to monitor and evaluate MBHT replication projects to include the assessment of expected programs outcomes before, during, and after program implementation.

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1. REFERENCES. See Appendix A for a listing of references used in this report.

2. PURPOSE. The U.S. Army Public Health Command (Provisional) (USAPHC (Prov)), formerly the U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM), conducted a retrospective, mixed-method evaluation of the pilot Mobile Behavioral Health Service (MBHS) at Fort Carson, Colorado. The goal of this evaluation was threefold: (1) to describe the MBHS's process and activities, (2) to determine the impact of the MBHS on Fort Carson's capacity to provide behavioral health (BH) care, and (3) to measure the MBHS's effect on Soldiers' risk behaviors and deployment status.

3. AUTHORITY. Planning meeting with MAJ Chris Ivany, Chief, MBHS, 13 October 2009.

4. BACKGROUND.

a. Program Consultation (PROCON) Process. The USAPHC (Prov) Public Health Assessment Program uses a standardized, validated program evaluation process developed by the Centers for Disease Control and Prevention adapted for use in a military setting[1]. The PROCON process includes the following ten steps: (1) identify program for evaluation; (2) develop evaluation plan; (3) in-brief installation leadership; (4) revise evaluation plan; (5) collect quantitative and qualitative data as appropriate; (6) perform mixed-methods analysis; (7) out-brief installation leadership; (8) complete technical report; (9) provide final out-brief to installation leadership and other stakeholders; and (10) publish in peer-reviewed journals.

b. Literature Review. Fort Carson is piloting a new garrison model of BH care delivery which places BH providers in close proximity to an assigned battalion (BN) of Soldiers. Fort Carson's expectation is that such proximity will increase Soldiers' accessibility to BH care and trust in BH providers, both important and prevalent barriers to care in a military population. More than half of Soldiers in one study who met the screening criteria for a BH disorder thought it would be difficult to get time off work for treatment, and 45 percent thought it would be difficult to schedule an appointment[2]. Thirty-eight percent of Soldiers also reported not trusting mental health professionals[2].

Models of service delivery like the MBHS that include flexible hours, short waiting times, and frequent contact with a single provider have been shown to maximize patient engagement in BH services[3]. In addition, a similar model of BH care delivery that also places BH assets forward in garrison has demonstrated positive trends in increasing the number of routine BH appointments while decreasing the number of emergent BH issues among Soldiers[4].

c. Program Description.

(1) Sources of Information. During the 5–9 APR 2010 site visit, USAPHC (Prov) staff conducted 10 key informant interviews with MBHS providers, Division Headquarters staff, and unit commanders (heretofore referred to as "interviewees") to understand the mission, activities, barriers, facilitators, benefits and existing gaps of the MBHS. Documents regarding MBHS activities and the implementation process, including mission statements, briefings, and information papers, were obtained from interviewees for review.

(2) Oversight. The Behavioral Health Department at Evans Army Community Hospital (EACH) on Fort Carson has oversight of the MBHS.

(3) Mission. The MBHS provides multidisciplinary community BH care to Fort Carson's Soldiers in close proximity to their unit area and in coordination with unit leaders to maximize diagnostic accuracy, remove barriers to care, and improve treatment outcomes. One interviewee described the mission of the MBHS as "pushing BH assets as far forward as possible to prevent bad outcomes and assist Soldiers' return to duty (RTD) whenever possible." The MBHS should "assist with mission readiness and ensure Soldiers are fully mission capable," stated another interviewee. Evans Army Community Hospital has identified the following goals as the end state for successful MBHS implementation:

(a) Soldiers know that high quality BH care, including diagnostic evaluations and follow-on evidence-based treatment, is readily available on Fort Carson.

(b) With rare exception, Soldiers receive care from the same BH provider (continuity) until the Soldier changes units, leaves the Army, or deploys.

(c) Unit commanders and key leaders will have a consistent and readily accessible BH subject matter expert assigned to support their unit's BH needs.

(4) Staffing and Structure.

(a) At full strength, a Mobile Behavioral Health Team (MBHT) is made up of 11 people and supports a full Brigade Combat Team (BCT). At the core of the team are six BH providers (two psychologists and four licensed clinical social workers). Each provider is assigned to and exclusively supports a single BN. The team is supported by five additional personnel: one nurse care manager, two social service assistants or BH technicians, one medial support assistant, and one psychiatrist.

(b) Fort Carson's first MBHT was initiated in January 2009. The team was initially located in the troop-aide station; however, space and privacy concerns necessitated their movement to a more central, dedicated location. At the time of this PROCON, three MBHTs with various staffing levels are currently supporting BCTs of the 4th Infantry Division. A fourth MBHT is being developed to support other tenant units at Fort Carson.

(c) The goal of each team is to be self-sustaining. According to interviewees, this means "becoming less dependent on the 4th floor [EACH's Department of Behavioral Health] and more reliant on resources organic to [their] own clinic. "MBHTs are also relatively independent from each other. However, staffing shortages within the MBHS, due to hiring freezes and the availability of appropriately-skilled providers in the community, have made meeting the goal of self-sustainment difficult. Currently, MBHS providers consult with other teams as needed, and two prescribing providers are shared among all teams. Table 1 shows allocated staff positions for the MBHS and current staffing levels as of April 2010.

Table 1. MBHS Staffing Requirements and Current Staffing as of April 2010

Title	Number Allocated	Current Staffing
Supervisory Clinical Psychologist	1	1
Psychologist	9	5
Licensed Clinical Social Worker (LCSW)	12	7
Psychiatrist (clinical)	4	1
Nurse Care Manager	3	3
Clinical Staff Nurse	1	1
Social Service Assistant	8	8
Medical Support Assistant	7	4
Health System Analyst	1	1
TOTAL	46	32

(d) Interviewees were asked to describe the ideal types of providers suitable for this model of BH care delivery. The importance of having previous military experience was mentioned most often. One interviewee believed that providers with military experience were better able to "estimate the burden of deployment on Soldiers" than providers with no military experience. Being flexible and a team player were also frequently mentioned strengths. As one interviewee stated, "being comfortable working outside of the norm" is important because "not all significant contacts occur within the confinement of the clinic."

(e) The MBHS closely coordinates BH care with the organic BH assets in the BDE. However, success with incorporating them into the MBHS care delivery model has been mixed. Because organic providers and techs are assigned to the BDE, they often have additional duties and tasks and, therefore, cannot assume responsibility for the comprehensive BH care of any one BN.

(5) Program Services.

(a) One interviewee likened the MBHS's spectrum of activities, from individual counseling to systemic BH care coordination, as "a safety net throughout the Army Force Generation (or ARFORGEN) cycle that has a great effect on readiness and health." Major MBHS activities include—

i. Providing Soldiers with scheduled individual therapy and a walk-in option with triage assessment by a BH technician. Soldiers with emergent issues are seen immediately and Soldiers with nonurgent issues are seen by a credentialed provider within 3 days.

ii. Providing a variety of treatment options to address identified needs such as post-traumatic stress disorder, anger management, stress management, sleep hygiene, depression and anxiety, relaxation, and transitions (goal setting).

iii. Assisting Soldier with and keeping leadership abreast of current and future disposition with regard to risk level, deployability, retainability, Medical Evacuation Board (MEB) process, and administrative separation. The MBHT providers update commanders bi-monthly on the current status of Soldiers who are nondeployable for BH reasons.

iv. Keeping leadership abreast of hospital discharges, the identification of high-risk Soldiers, and the identification of BH trends within the BN or squadron. For Soldiers who have been recently discharged from the hospital or identified as high-risk,

the MBHT provider will hold a joint meeting between that Soldier and his/her chain of command to ensure that everyone has the same understanding of the current situation.

v. Interfacing with assigned BN/squadron chain of command on a weekly basis and providing a minimum of two hours briefing time per week that can include informational presentations, discussions of a Soldier's specific care, or administrative issues. One MBHT provider has a weekly breakfast with the BN commanders, Company Commanders and First Sergeants to discuss current Soldier issues.

vi. Integrating within all major medical screening processes to include providing a Level III provider at Soldier Readiness Processing (SRP) and Reverse-SRP (R-SRP) for immediate consultation and referral.

vii. Integrating with other helping services on Fort Carson (Army Substance Abuse Program, Family Advocacy Program, Psychology, and Psychiatry) and liaising with off-post providers to include community hospitals for referral and treatment.

viii. Ensuring continuity of care between deployment and redeployment and during other points of transition. One MBHT is in the process of forming a team led by a case manager to assist Soldiers who are in transition periods.

ix. Conduct BH visits for Soldiers who have been wounded in action and are being treated at Fort Carson's military treatment facility (MTF).

x. Evaluate and develop clinical plans for Soldiers medically evacuated from theater for BH reasons.

(b) Relative value units (RVUs) are generated during clinical encounters and tracked for each MBHS provider. Table 2 shows per-month averages of RVUs, clinical encounters, and RVUs per clinical encounter for each type of MBHS provider from October 2009 to February 2010. However, RVUs do not account for other nonclinical tasks that providers perform in between clinical appointments. As one interviewee noted, "if [clinical] appointments are the bricks, then there is a lot of mortar in-between."

Table 2. MBHS Utilization Measures

Type of Provider	Average RVUs per Month	Average Encounters per Month	Average RVUs/ Encounter per Month
Psychologist	202.42	104.40	1.94
Licensed Clinical Social Worker	105.05	66.58	1.58
Psychiatrist	111.62	75.70	1.47
TOTAL	139.70	82.23	1.70

(6) Gaps in the MBHS. Interviewees mentioned shortages in staff, particularly of prescribing providers, as the biggest gap in current implementation of the MBHS. The ability of prescribers to manage Soldiers' medications is vital to mission readiness because medication issues are "one of the main reasons Soldiers are nondeployable at SRP," according to one interviewee. Other gaps mentioned were a lack of focus on Soldiers' families, a lack of appropriate space to conduct group therapy and education, and a lack of standardization of the MBHS process. The MBHS is currently developing its capacity to assist Family members and will also inhabit new facilities shortly that include larger conference/training rooms.

(7) Benefits. Interviewees' perceived advantages of the MBHS fall into several broad categories which are presented in Table 3 with supporting quotes.

Table 3. Perceived Benefits of MBHS

Theme	Quotes
Increased accessibility	"Proximity to BDE means not losing Soldiers for 1/2 day for appointments" "Accessibility is important, especially for the younger Soldiers" "Being in the footprint means being responsive and having our finger on the pulse of the unit" "Right people at the right place at the right time"
Relationship with commanders	"Commanders know us and trust our judgment" "We work for commanders as much as we work for Soldiers" "Building relationships with commanders increases their faith in the team" "This is a commander's program, and we have a 'What can we do for you?' attitude" "Helps put the pieces together and compare perspectives" "Face-to-face time gives commanders confidence that the MBHS is on top of readiness"
Single point of contact	"Pulls in redeployment scatter" "Early identification, rapid treatment, and early disposition" "Better timeframe for tracking Soldiers who are seeking off-post care" "Central point of contact for Service members with regard to diagnoses and medication management"
Stigma	"Soldiers see us as an advocate" "Junior officers sit in the waiting rooms now" "A BH provider in each BN increases trust which decreases stigma" "Visibility of BH providers in commander's office each week shows commander's support for the program" "Soldiers come to [the MBHT] on the recommendation of their peers which means we are doing the job right"

Table 3, continued. Perceived Benefits of MBHS

Theme	Quotes
Access to information	"Providing the correct information allows commanders to free up space on their deployables list" "BH does not affect mission readiness due to high visibility of care being received" "No kidding nondeployable numbers and no surprises at SRP" "Better understanding of Soldiers issues through available trend data"

(8) Sustainability. When asked about the long-term sustainability of the MBHS, most interviewees agreed that the need for this model of BH care delivery will continue beyond the current wars. "There will be a delayed presentation for the BH wounds of war," one interviewee hypothesized. In addition, interviewees stated that the MBHS was too important for "destigmatizing BH" and "providing better care for Soldier" to not continue to support the program well into the future.

5. METHODS.

a. Study Design. This evaluation examines the impact of the MBHS retrospectively through self-report surveys of Soldiers and key unit leaders and comparisons of targeted BH outcomes between the 2nd and 3rd Brigade Combat Team, 4th Infantry Division (2/4 ID and 3/4 ID, respectively) stationed at Fort Carson. Each data source is described in detail below.

b. Data Sources.

(1) Questionnaires.

(a) The Soldier Survey (Appendix B) contains 13 items adapted from the Primary Care Assessment Survey[5] to measure Soldiers' satisfaction with their MBHT provider's accessibility and quality of care and 11 items adapted from the Trust in Physician Scale[6] to measure Soldiers' trust in their MBHT provider. MBHT staff administered the survey to a convenience sample of Soldiers when they arrived for scheduled appointments.

(b) The Key Unit Leader Survey (Appendix C) contains 6 items measuring leaders' perceived changes in BH services while stationed at Fort Carson as well as 10 items measuring satisfaction with the MBHT provider assigned to their BN. These 16 items were developed specifically for this evaluation. Fourteen additional items measuring provider trust were adapted from the Public Trust in Health Care Scale[7]. MBHT staff identified and sent electronic surveys to select unit leaders.

(2) Behavioral Health Outcomes.

(a) For this evaluation, comparisons on key BH outcomes are made between 2/4 ID—the intervention group, and 3/4 ID—the control group. Due to the phased implementation of the MBHS, 2/4 ID was supported by a MBHT since their redeployment mid-2009. In contrast, 3/4 ID was not supported by a MBHT until approximately 6 months following redeployment. The 3/4 ID MBHT maintained support of the unit it deployed 7 months later in April 2010. Table 4 provides a cursory comparison of the most recently completed deployments of 2/4 ID and 3/4 ID.

Table 4. Comparison of 2/4 ID and 3/4 ID on Key Deployment Factors

Factor	2/4 ID (Intervention)	3/4 ID (Control)
Type of brigade combat team (BCT)	Heavy	Heavy
Theater of operation	Iraq	Iraq
Length of deployment	12 months	15 months
Number killed in action	9	12
Model of BH care before deployment	Standard	Standard
BH screening in theater	Yes*	No
Model of BH care after deployment	MBHS	Standard for first 6 months followed by MBHS

*Note:
Soldiers were screened for key suicide risk factors with 4PQ (or 4-part questionnaire). Any positive response places Soldiers on a list to be contacted by command during the redeployment period.

(b) Fort Carson's MTF does not have inpatient BH facilities. Soldiers requiring inpatient psychiatric care are admitted and treated at five hospitals throughout the Colorado Springs community. A Nurse Case Manager (NCM) is responsible for coordinating and tracking Soldiers' inpatient care obtained through the community hospitals and reports the incidence of new admissions monthly to the Chief of the MBHS. Effective provision of BH care through the MBHS would be evidenced by a decreased number of inpatient psychiatric admissions.

(c) As Soldiers move through Reverse-Solider Readiness Processing (R-SRP) during the redeployment period, BH providers may make off-post referrals to TRICARE providers if the resources to assess and treat Soldiers in a timely manner are not available on-post. TRICARE referrals for BH services are processed and tracked through the DBH at Fort Carson's MTF. Effective provision of BH care through the MBHS would be evidenced by a decreased number of off-post TRICARE referrals during the R-SRP process.

(d) The Risk Reduction Program collates selected risk behaviors into unit-level quarterly counts and rates that can be accessed through the Army Center for Substance Abuse Program (or ACSAP) portal. Appendix D lists the definition and data proponent for each risk factor examined for this PROCON. Effective provision of BH care through the MBHS would be evidenced by a decreased number of unit risk behaviors.

(e) Soldiers who are not deployable for BH reasons are tracked by the MBHT and reported to commanders on a bi-monthly basis. Effective provision of BH care through the MBHS would be evidenced by a decreased number of BH nondeployable Soldiers at the time of unit's deployment.

c. Data Analysis. The Statistical Package for the Social Sciences (or SPSS®), Version 16.0, was used for statistical analysis. (SPSS® is a registered trademark of SPSS Corporation.)

d. Limitations. USAPHC (Prov) conducted this evaluation retrospectively approximately one year following initial program implementation. The results of this evaluation are largely based on self-report surveys and clinical outcome data available from program staff. As such, the ability to make meaningful comparisons between MBHS and standard BH care is limited. In addition, comparisons made between units may be confounded by unknown factors that also affect BH outcomes. These limitations temper the strength of the conclusions that can be drawn from the data with regard to program impact and effectiveness. However, USAPHC (Prov) will evaluate the MBHS prospectively using primary data collection methodologies to determine the direct impact of the MBHS versus traditional BH care on Soldiers' BH well-being. Findings from the prospective evaluation will also be used to inform phased replication of the MBHS at other Army installations as appropriate.

6. RESULTS.

a. Soldier Survey.

(1) Fifty-one out of approximately 60 respondents completed the Soldier Survey for a response rate of 85%. Most respondents (n = 43) were Soldiers in 3/4 ID. The remaining Soldiers were either in Warrior Transition Units (WTUs) or in 2/4 ID Rear-Detachment. Frequencies and mean responses for all 24 items on the Soldier Survey are in Appendix E.

(2) With regard to MBHT provider accessibility, Soldiers were most satisfied with their ability to obtain release from work and least satisfied with their ability to reach their provider by phone for questions. With regard to MBHT-provider quality of care, Soldiers

were most satisfied with the provider's attention to what they had to say and least satisfied with how often they left the provider's office with questions. Table 5 shows the average response for selected items on accessibility and quality of care.

Table 5. Average Response for Selected Items on Provider Accessibility and Quality of Care

Question	**Average Response** (1 = very dissatisfied; 5 = very satisfied)
Ability to obtain release from work	4.61
Ability to speak to provider by phone	4.20
Attention given to what you say	4.53
How often you leave with questions	4.22
Location of MBHT provider's office	4.49
How quickly you can get an appointment	4.31

(3) Soldiers reported the highest amount of trust in MBHT providers' expertise in BH care and ability to make appropriate decisions while balancing command guidelines and policies. Soldiers expressed the least amount of trust in the belief that the MBHT provider will tell them the truth with regard to their BH care. Table 6 shows the average response for selected items on provider trust.

Table 6. Average Response for Selected Items on Provider Trust

Question	**Average Response** (1 = low trust; 5 = high trust)
Provider is a BH expert	4.39
Provider makes appropriate decisions	4.33
Provider tells me the truth	3.83
Provider advocates for me	4.36
Distrust my provider's assessment	1.88
Trust provider and follow recommendations	4.12

b. Key Unit Leader Survey.

(1) A total of 41 out of approximately 71 respondents completed the Key Unit Leader Survey for a response rate of 58%. Most respondents were 3/4 ID Company Commanders (*n* = 15) or First Sergeants (*n* = 13). Frequencies and mean responses for all 30 items on the Key Unit Leader Survey are in Appendix F.

(2) Approximately 60 percent of key unit leaders (n = 23) reported being stationed at Fort Carson before initial MBHS implementation (December 2008). However, nearly all respondents (n = 40) indicated significant improvement over time in the number of available BH resources on Fort Carson but little improvement in the negative consequences for Soldiers seeking BH services. Table 7 shows the average response for selected items measuring perceived changes in BH care on post.

Table 7. Average Response for Selected Items on Perceived BH Changes

Question	**Average Response** (1 = worsened; 5 = improved)
Available BH resources on post	4.42
Negative consequences for those seeking BH	3.80
Visibility of BH providers in footprint	4.08
Your attitude towards those seeking BH	3.80

(3) Key unit leaders reported being most satisfied with the quality of follow-up from BH providers and the quality and ease of communication with their BN's MBHT provider. Respondents were least satisfied with the effectiveness of their BN's MBHT provider. Table 8 shows the average response for selected items measuring program satisfaction.

Table 8. Average Response for Selected Items on Program Satisfaction

Question	**Average Response** (1 = very dissatisfied; 5 = very satisfied)
Quality of follow-up from provider	4.41
Quality of relationship with provider	4.38
Ease of communication with provider	4.38
Effectiveness of BH provider	3.95
Ease of referring Soldiers	4.39
BH provider's support of mission readiness	4.26
Convenience of BH provider's office location	4.28

(4) Key unit leaders reported the highest amount of trust in their BN's MBHT provider to take their Soldiers seriously, listen to their Soldiers, and keep their Soldiers' information confidential as appropriate. Respondents expressed the least amount of trust in their BN's MBHT provider to know everything about BH. Table 9 shows the average response for selected items measuring provider trust.

Table 9. Average Response for Selected Items on Provider Trust

Question	Average Response (1 = low trust; 5 = high trust)
Provider will take Soldier seriously	4.63
Provider will listen to Soldier	4.53
Soldiers' information kept confidential	4.47
Provider knows everything about BH	3.92
Soldiers will get the best treatment	4.13
Provider will make the right diagnosis	3.97
Soldiers will get sufficient information	4.18

c. Behavioral Health Outcome Comparisons.

(1) Inpatient Admissions. Figure 1 shows the trends in inpatient BH admissions for the first six months following redeployment for 2/4 ID (intervention) and 3/4 ID (control). The average number of inpatient admissions over the six month period is statistically significantly lower in the 2/4 ID compared to the 3/4 ID ($t(10) = -4.36$, $p < .001$).

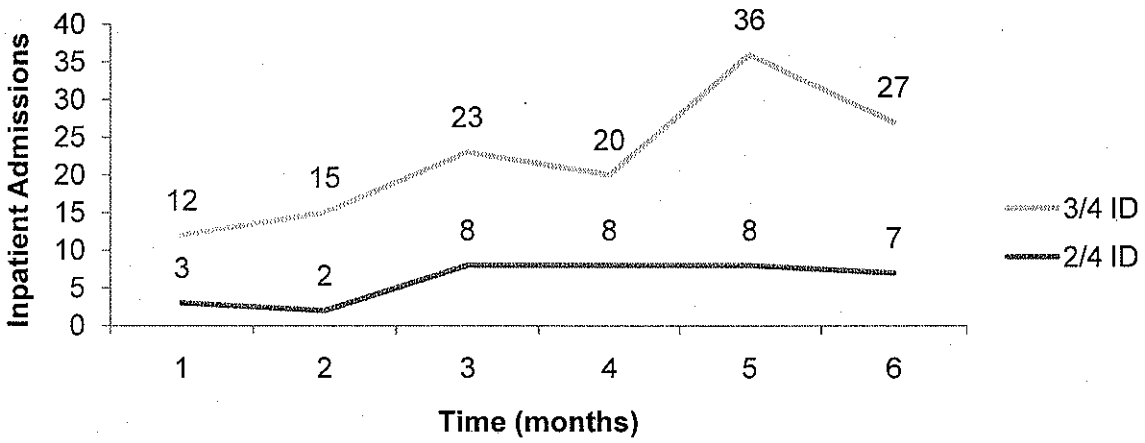

Figure 1. Number of Inpatient Admissions During the First Six Months Following Redeployment

(2) TRICARE Referrals. Figure 2 shows the number of TRICARE referrals issued during R-SRP at the respective redeployment periods for 2/4 ID (intervention) and 3/4 ID (control). The number of referrals was statistically significantly lower in the 2/4 ID compared to the 3/4 ID ($\chi^2(1) = 177.34$, $p < .001$).

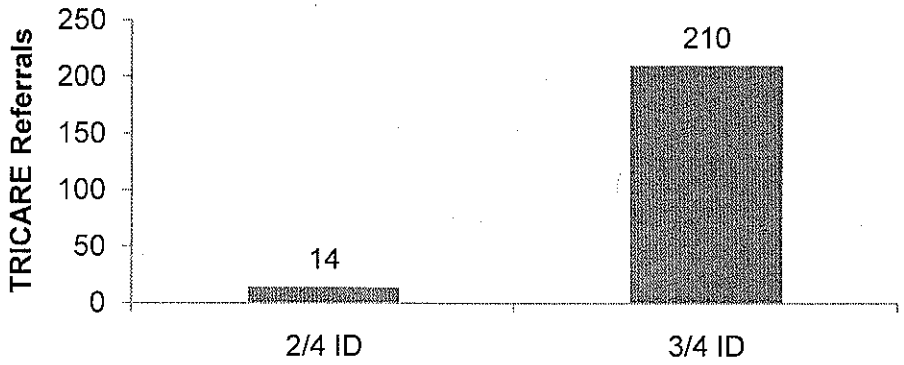

Figure 2. Number of TRICARE Referrals at R-SRP

(3) Unit Risky Behaviors. Figure 3 shows the rate of selected risk behaviors for the first 6 months of redeployment for the 2/4 ID (intervention) and the 3/4 ID (control). Chi-square tests indicate that counts of suicide attempts and gestures, sexually transmitted infections (STIs), spouse abuse, financial problems, and positive urinalysis tests were statistically significantly lower in the 2/4 ID than in the 3/4 ID ($p < .05$). There was a significant difference between the two units in traffic violations; however, this may be attributed to a change in the definition of traffic violations during the period of interest. Results for significance tests for all measured risk behaviors are in Appendix G.

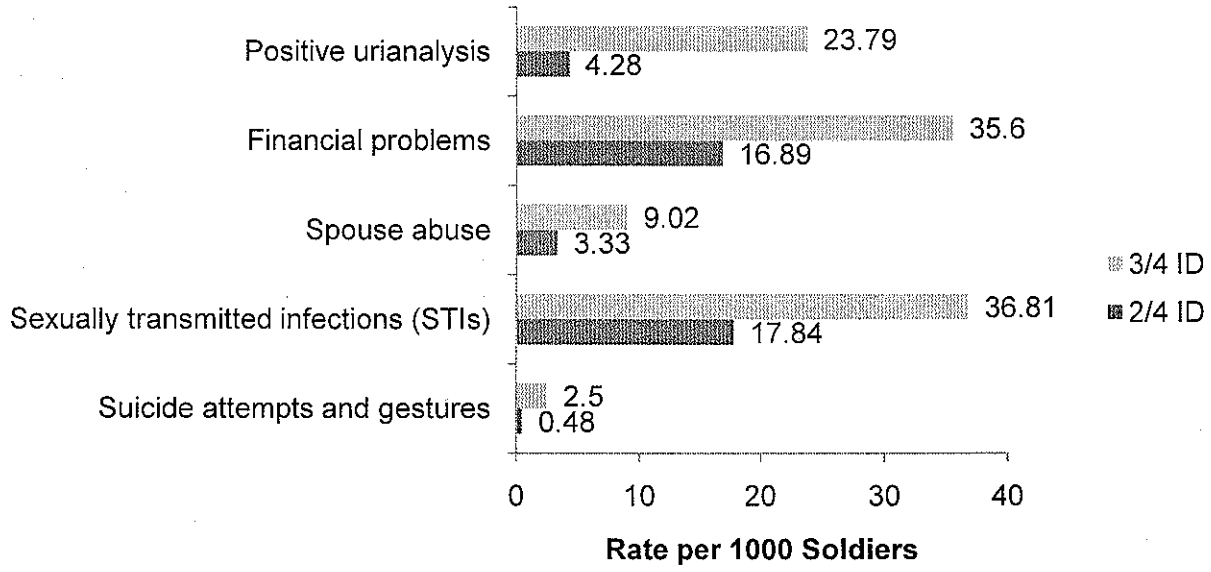

Figure 3. Rates of Significantly Different Risk Behaviors During First Six Months Following Redeployment

(4) Behavioral Health Nondeployables. Figure 4 shows the number of BH nondeployables in the months prior to deployment for the 2/4 ID (supported by standard BH care) compared to the 3/4 ID (supported by a MBHS for 7 months prior to deployment). At SRP, 3/4 ID reduced their number of BH nondeployables from 44 to 10 by moving Soldiers with pending administrative actions, MEBs, and WTU assignments to another unit that was not yet scheduled for deployment. The 3/4 ID had significantly fewer BH nondeployables than the 2/4 ID ($\chi^2(1) = 30.98$, $p < .001$).

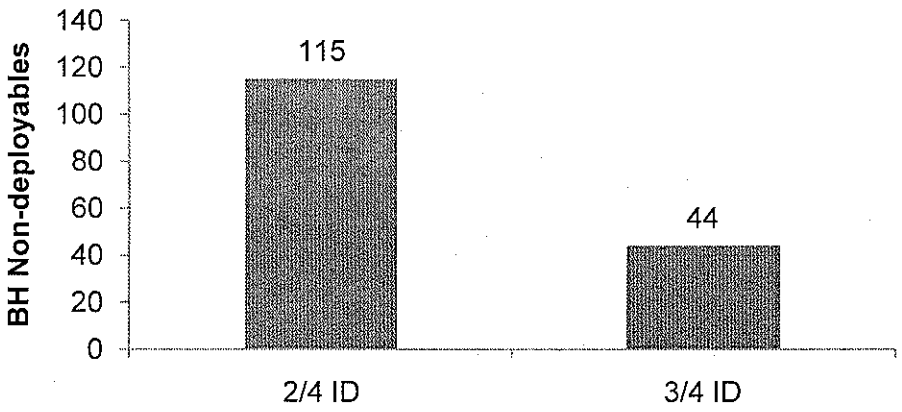

Figure 4. Number of BH Nondeployables Prior to Deployment

7. COST ANALYSIS.

a. Methods. Accurately estimating the cost benefit of a prevention program can be a significant challenge and primarily depends on the extent to which program costs, program outcomes, and savings associated with those outcomes have been adequately documented[8]. Cursory estimates of program costs and benefits based on data available at the time of this report are presented below.

b. Program Costs. Table 10 shows the cost of a MBHT for one BCT during the first year of implementation. Cost estimates below are in addition to the cost of standard BH care through the MTF's DBH but are robust and assume the necessity of hiring new civilian personnel for all MBHT positions and having dedicated facilities. Fort Carson's actual program costs were lower because MBHS staff positions were filled to a large degree through the reorganization of existing MTF BH providers. Costs associated with the first year of implementation were selected to match the costs of the outcomes produced at this stage of implementation.

Table 10. Cost of an MBHT to Support Individual BCT

Component	Costs
Personnel	$969,000
Travel	$33,000
Supplies	$55,000
Facilities	$22,222
TOTAL	$1,079,222

c. Cost benefit.

(1) A cost-benefit analysis weighs total program costs against the dollar value of all program benefits[8]. For the MBHS, a comprehensive cost-benefit analysis could not be conducted due to limited available economic data for all program benefits.

(2) Cost data were available for one program benefit: psychiatric inpatient admissions. The peer-reviewed literature on military populations estimates that the average cost of a psychiatric inpatient admission is $764 per day, and the average psychiatric length of stay is 9 days[9,10]. As such, the average psychiatric inpatient admission costs $6,876 per patient ($764 x 9 days). At Fort Carson, inpatient psychiatric admissions decreased by 73 percent during the first 6 months following redeployment when comparing 3/4 ID (*n* = 133) with 2/4 ID (*n* = 36). Calculated using the formula below, the cost savings for psychiatric admissions is estimated at $1,333,944 per year.

> [Net difference in admissions (*n* = 97) x Average cost of admission ($6,876)] x 2 to create a yearly estimate = $1,333,944 per year

d. Cost effectiveness.

(1) A cost-effectiveness analysis relates total program costs to a specific measure of program outcomes such as so many dollars of program costs per life saved[8]. Such calculations can be compared to similar programs to determine which program is most cost-effective based on desired outcomes.

(2) Compared to 3/4 ID, 2/4 ID had significantly less positive urinalysis tests (*n* = 77), significantly less reported STIs (*n* = 72), significantly less reported financial problems (*n* = 69), significantly less instances of spouse abuse (*n* = 22), and significantly less reported suicide attempts and gestures (*n* = 8). In total, 2/4 ID experienced 248 less negative risk behaviors during the first 6 months following redeployment than 3/4 ID. Calculated using the formula below, one negative behavioral health risk behavior is prevented for every $2,175 spent on an MBHT.

> Program cost [$1,079,222] / [Difference in incidence of significant risk behaviors (*n* = 248) x 2 to create a yearly estimate] = $2,175

(3) Compared to 2/4 ID, 3/4 ID had significantly less nondeployable Soldiers for BH reasons (*n* = 71). Calculated using the formula below, one nondeployable Soldier for BH reasons is prevented for every $15,200 spent on the MBHT.

Program cost [$1,079,222] / [Difference in incidence of BH non-deployables (n = 71)] = $15,200

8. CONCLUSIONS.

a. The MBHS program staff described that mission of the program as "pushing MTF BH assets as far forward as possible to prevent bad outcomes and assist Soldiers' RTD whenever possible;" the staff believed this model of BH care delivery was meeting its mission at Fort Carson. Perceived benefits of the MBHS during its first year of implementation included increased accessibility, better relationships between MTF BH providers and unit commanders, creating a single point of contact for BH in a BN, affecting stigma, and increasing commanders' access to important BH information. The biggest gap identified for the MBHS was a lack of prescribing providers that could assist Soldiers with medication management. Program stakeholders believed that the need for and benefit of forward BH assets in garrison will make long-term sustainability of the MBHS viable.

b. Overall, Soldiers reported high levels of satisfaction regarding the accessibility of their MBHT provider and the quality of care they received through the MBHT. Key unit leaders, especially Company Commanders and First Sergeants, reported positive changes in BH services on post since MBHS implementation and satisfaction with their unit's assigned MBHT provider. Both Soldiers and key unit leaders reported high amount of trust in the skills of their MBHT provider.

c. During their first 6 months following redeployment, 2nd BCT, 4th Infantry Division (2/4 ID) experienced 73 percent less inpatient psychiatric admissions than 3rd BCT, 4th Infantry Division (3/4 ID). This may be a key indicator of the MBHS's ability to "get out ahead" of Soldiers' emerging BH issues through early identification and rapid treatment. In addition, reducing the number of psychiatric admissions resulted in an estimated cost savings of $1.3 million per BCT during the first year of MBHS implementation.

d. At their respective R-SRP event, 93 percent less TRICARE off-post referrals were made for 2/4 ID Soldiers than for 3/4 ID Soldiers. Having sufficient provider capacity to keep BH care "in house" may increase MBHT providers' visibility of Soldiers' progress and their ability to communicate with commanders about Soldiers' dispositions, risk levels, deployability and retainability.

e. The 2/4 ID reported 58 percent less risk behaviors, including suicide attempts and gestures, spouse abuse, STIs, financial problems, and positive urinalysis than 3/4 ID during the first 6 months following their respective redeployments. Trends in risk

behaviors are often indicative of a unit's wellbeing and predictive of mission readiness. Every $2,175 spent on the MBHS prevents one negative BH risk behavior.

f. Prior to deployment, 3/4 ID, which had MBHT support for 7 months, had 62 percent less BH nondeployables than 2/4 ID, which last deployed out of the standard BH care model. Impacting BH nondeployables may have a direct effect on mission readiness, the fighting strength of the unit, and Soldiers' stress as it relates to taking on extra duties. Every $15,200 spent of the MBHS prevents one Soldier from being nondeployable for BH reasons.

9. RECOMMENDATIONS.

a. Given the level of support for the MBHS among Soldiers and key unit leaders at Fort Carson and the positive effect of the MBHTs on inpatient psychiatric admissions, off-post referrals, unit risk behaviors, and BH nondeployables, USAPHC (Prov) strongly recommends continuation of the program at Fort Carson with the following considerations:

(1) Conduct a comprehensive, prospective evaluation of the MBHS to determine the direct impact of the program on Soldiers well-being to include a formal business case analysis establishing the cost-effectiveness and cost-benefit of the program.

(2) Create a standing operating procedure that delineates core requirements and tasks of an MBHT's structure and providers while allowing flexibility to tailor the process to the assigned unit.

(3) Address gap-in-medication management capacity of MBHT through coordination with BN physician assistant (PA) in the short-term and priority hiring of prescribing providers for long-term sustainability.

(4) Integrate MBHS mission with organic BDE BH assets to coordinate BH care across the ARFORGEN cycle with an emphasis on communication between deployed and garrison environments.

(5) Develop a database to capture trends in BH service utilization and diagnoses within and across MBHTs. Develop standardized reporting procedures to continually monitor trends in BH outcomes of interest, such as psychiatric admissions, risk behaviors, and BH nondeployables.

(6) Increase MBHT capacity to provide preventive education, normalization briefings, and training opportunities directly to Soldiers on key BH issues such as combat stress reactions, resiliency, sleep hygiene, and anger management.

b. The positive findings in this report and the potential costs savings of the MBHS warrant replication of this model at other Army installations with the following considerations:

(1) Replication should be phased and incorporate findings from the prospective MBHS evaluation and cost benefit analysis to be conducted within the next six months.

(2) Develop parameters for "right-sizing" the program at other Army installations that may have resources and prominent BH issues different than those at Fort Carson. Right-sizing should be established with consideration of the mission of organic BDE BH assets.

(3) Incorporate a primary prevention focus into MBHT activities to identify and assist Soldiers with compounding life stressors before they become a command or BH issue.

(4) Establish protocol to monitor and evaluate MBHT replication projects to include the assessment of expected programs outcomes before, during, and after program implementation.

10. POINT OF CONTACT. Dr. Jennifer Piver-Renna, the principal investigator, is the point of contact for this project. She may be reached, commercial 410-436-9283, DSN 584-9283, or e-mail at jennifer.piverrenna@us.army.mil.

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APPENDIX A
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APPENDIX B
SOLDIER SURVEY

Soldier Satisfaction Survey

Date: __ __ / __ __ __ / __ __ __ __ Who do you see for care in bldg 1370 _____

Brigade: _____

Battalion: _____

Directions: Indicate your level of satisfaction for each of the items below with regard to your experience with your assigned **mobile behavioral health team (MBHT) provider** at Fort Carson. In the questions below, "MBHT provider" refers to your unit's assigned behavioral health provider located in Building 1370.

	Very dis-satisfied	Dis-satisfied	No opinion	Satisfied	Very satisfied
How quickly you can see your MBHT provider when you call for an appointment	1	2	3	4	5
Ability to speak to your MBHT provider by phone when you have a question/need behavioral health advice	1	2	3	4	5
Convenience of the MBHT provider's office location	1	2	3	4	5
Hours when the MBHT provider's office is open	1	2	3	4	5
MBHT provider's knowledge of entire behavioral health history	1	2	3	4	5
MBHT provider's knowledge about your responsibilities at work and home	1	2	3	4	5
MBHT provider's knowledge about what concerns you the most about your behavioral health	1	2	3	4	5
MBHT provider's knowledge about you as a person (your values and beliefs)	1	2	3	4	5
Help your MBHT provider gave you in getting an appointment for specialty care you needed	1	2	3	4	5
Attention MBHT provider gives to what you have to say	1	2	3	4	5
How often you leave the MBHT provider's office with unanswered questions	1	2	3	4	5
MBHT provider's respect for you	1	2	3	4	5
Ability to obtain release from work for appointment with your MBHT provider	1	2	3	4	5

Directions: Indicate your level of agreement for each of the items below with regard to your experience with your assigned mobile behavioral health team (MBHT) provider at Fort Carson. In the questions below, "MBHT provider" refers to your unit's assigned behavioral health provider located in Building 1370.

	Strongly disagree	Disagree	No opinion	Agree	Strongly agree
I doubt that my MBHT provider really cares about me as a person.	1	2	3	4	5
My MBHT provider is usually considerate of my needs and puts them first.	1	2	3	4	5
I trust my MBHT provider so much that I always try to follow his/her recommendations.	1	2	3	4	5
If my MBHT provider tells me something is so, then it must be true.	1	2	3	4	5
I sometimes distrust my MBHT provider's assessment and would like a second one.	1	2	3	4	5
I trust my MBHT provider's judgment about my behavioral health care.	1	2	3	4	5
I feel my MBHT provider does not do everything he/she should for my behavioral health care.	1	2	3	4	5
My MBHT provider is a real expert in taking care of behavioral health problems like mine.	1	2	3	4	5
I trust my MBHT provider to tell me if a mistake was made about my treatment.	1	2	3	4	5
I trust my MBHT provider to advocate for health and well-being with command.	1	2	3	4	5
I trust my MBHT provider to make appropriate behavioral health decisions while balancing command guidelines and policies.	1	2	3	4	5

APPENDIX C
KEY UNIT LEADER SURVEY

Fort Carson Key Unit Personnel Survey

Date: __ __ / __ __ __ / __ __ __ __

Brigade: _____

Battalion: _____

Position (circle one): BDE CDR BDE CSM BDE Surgeon BN CDR BN CSM

CO CDR 1SG BN PA

Other (specify): _____

How long have you been stationed at Fort Carson?

a. Since 31 DEC 08 or earlier b. Since 01 JAN 09 or later

Directions: Think about your unit's experience with behavioral health services in general at Fort Carson. Indicate the amount of change, if any, you have seen for each item below while stationed at Fort Carson.

	It has worsened.		No change		It has improved.
Number of available resources for behavioral health care on post	1	2	3	4	5
Attitudes of Soldiers towards others seeking behavioral health care	1	2	3	4	5
Your attitude toward Soldiers seeking behavioral health care	1	2	3	4	5
Attitudes of those above you in your chain of command towards Soldiers seeking behavioral health care	1	2	3	4	5
Negative consequences for Soldiers seeking behavioral health care	1	2	3	4	5
Visibility of behavioral health providers within unit's garrison footprint	1	2	3	4	5

Directions: Think about your unit's experience with your assigned mobile behavioral health team (MBHT) provider at Fort Carson. In the questions below, "MBHT provider" refers to your unit's assigned behavioral health provider located in Building 1370. Indicate your level of satisfaction for each item below.

	Very dis-satisfied	Dis-satisfied	No opinion	Satisfied	Very satisfied
Ease of making an appointment for your Soldiers with MBHT provider	1	2	3	4	5
How long your Soldiers has to wait for his/her appointment date with a MBHT provider	1	2	3	4	5
Ease of referring Soldiers to MBHT provider	1	2	3	4	5
Consistency of follow-up from MBHT providers regarding command-referred Soldiers	1	2	3	4	5
Quality of follow-up from MBHT provider regarding command-referred Soldiers	1	2	3	4	5
Ease of access to location of MBHT	1	2	3	4	5
Effectiveness of MBHT provider for Soldiers seeking help	1	2	3	4	5
Quality of your professional relationship with MBHT provider	1	2	3	4	5
Ease of your communication with MBHT provider	1	2	3	4	5
MBHT providers' support of mission readiness	1	2	3	4	5

Directions: Think about your unit's experience with your assigned mobile behavioral health team (MBHT) provider at Fort Carson. In the questions below, "MBHT provider" refers to your unit's assigned behavioral health provider located in Building 1370. Indicate your level of trust for each item below.

How much do you trust that...	Low trust		No opinion		High trust
Your MBHT provider will take his/her Soldiers seriously?	1	2	3	4	5
Waiting lists will never be too long?	1	2	3	4	5
Your MBHT can do everything?	1	2	3	4	5
Your MBHT provider will give Soldiers the best treatment?	1	2	3	4	5
Soldiers will be given information that they can understand?	1	2	3	4	5
Your MBHT provider will pay sufficient attention to his/her Soldiers?	1	2	3	4	5
Your MBHT provider knows everything about all sorts of behavioral health issues?	1	2	3	4	5
Your MBHT provider will make the right diagnosis?	1	2	3	4	5
A lot of care is taken to keep Soldiers' behavioral health information confidential?	1	2	3	4	5
Your MBHT provider will listen to his/her Soldiers?	1	2	3	4	5
Soldiers will get sufficient information about the cause of their problems?	1	2	3	4	5
Your MBHT provider will not give conflicting information?	1	2	3	4	5
Your MBHT provider will discuss things thoroughly with his/her Soldiers?	1	2	3	4	5
Your MBHT provider will give you feedback on Soldiers' issues that affect the health and well-being of your unit?	1	2	3	4	5

APPENDIX D
Risk Factor Definitions and Data Proponents

Factor	Definition	Data Proponent
Deaths	The number of all deaths among members of the reporting unit.	Casualty Assistance Office, Safety Office, Provost Marshal Office (PMO), Hospital
Accidents	The number of accidents involving $2,000 or more damage to government property assigned to the reporting unit. (Class A, B, C &D accidents)	Safety office
STDs/STIs	The number of new cases of all STDs among members of the reporting unit (whether they remain deployable or become non-deployable).	Prevention Medicine. DCS, G–1
Suicide attempts and gestures	The number of suicide gestures and suicide attempts. Not ideations, by members of the reporting unit.	Behavioral Health, PMO, Chaplain, DCS, G–1
AWOL	The number of AWOL charges brought against members of the reporting unit.	PMO
Drug offenses	The number of drug-related offenses charged to members of the reporting unit. These include, but are not limited to, possess and sale (but not USE) of a controlled substance.	PMO
Alcohol offenses	The number of alcohol-related offenses charged to members of the reporting unit. These include, but are not limited to, Driving While Intoxicated (DWI)/DUI, public intoxication, drunk and disorderly conduct, alcohol-related reckless driving possession by a minor, and consumption by a minor.	PMO
Traffic violations	The number of moving traffic violations charged to members of the reporting unit. These include, but are not limited to, speeding, failure to obey a traffic device, accidents, and non-alcohol-related reckless driving.	PMO
Crimes against person	The numbers of crimes against persons charged to member of the reporting unit. These include, but are not limited to simple assault, aggravated assault, murder, robbery, concealed weapons, kidnapping, harassment and threats, sodomy, rape indecent assault, adultery, and forgery. Note: Do not include any of the Drug Offenses or Alcohol Offenses in the factor.	PMO
Crimes against property	The number of crimes against property changed to members of the reporting unit. These include, but are not limited to, house breaking/burglary, automobile theft of private property, damage to property, and vandalism.	PMO
Spouse abuse	The number of substantiated cases of spouse abuse where the perpetrator and/or victim are member of the reporting unit.	Social Work Services, Army Community Service (ACS)/Family Advocacy Program (FAP)

Child abuse	The number of substantiated cases of child abuse where the perpetrator is a member of the reporting unit	Social Work Services, ACS/FAP
Financial problems	The number of Soldiers who seek financial assistance for Army Emergency Relief or assistance with debt liquidation or money mismanagement (for example, problems with creditors due to bounced checks; problems paying the Army or mortgage; or borrowing from "payday" lending institutions) among members of the reporting unit	ACS/Army Emergency Relief (AER)
Positive urinalysis	The number of confirmed positive urinalysis test results among members of the reporting unit.	DTC, DAMIS, G–1

Source:
Table 12-1 from AR 600-85, 2 February 2009, The Army Substance Abuse Program

APPENDIX E
FREQUENCIES AND MEAN RESPONSE FOR SOLDIER SURVEY ITEMS

MBHT Provider Accessibility and Quality of Care		
Question	**Mean response (1 = very dissatisfied; 5 = very satisfied)**	**% indicating "satisfied" or "very satisfied"**
How quickly you can see your MBHT provider when you call for an appointment	4.31	90.2
Ability to speak to your MBHT provider by phone when you have a question/need behavioral health advice	4.20	80.4
Convenience of the MBHT provider's office location	4.49	94.1
Hours when the MBHT provider's office is open	4.33	92.2
MBHT provider's knowledge of entire behavioral health history	4.53	90.2
MBHT provider's knowledge about your responsibilities at work and home	4.50	94.0
MBHT provider's knowledge about what concerns you the most about your behavioral health	4.45	88.2
MBHT provider's knowledge about you as a person (your values and beliefs)	4.27	82.4
Help your MBHT provider gave you in getting an appointment for specialty care you needed	4.49	90.2
Attention MBHT provider gives to what you have to say	4.53	94.1
How often you leave the MBHT provider's office with unanswered questions	4.22	78.0
MBHT provider's respect for you	4.47	92.2
Ability to obtain release from work for appointment with your MBHT provider	4.61	98.0
MBHT Provider Trust		
Question	**Mean response (1 = low trust; 5 = high trust)**	**% indicating moderate to high trust**
I doubt that my MBHT provider really cares about me as a person.	2.00	11.9
My MBHT provider is usually considerate of my needs and puts them first.	4.33	92.9
I trust my MBHT provider so much that I always try to follow his/her recommendations.	4.12	78.6

If my MBHT provider tells me something is so, then it must be true.	3.83	69.0
I sometimes distrust my MBHT provider's assessment and would like a second one.	1.88	7.1
I trust my MBHT provider's judgment about my behavioral health care.	4.17	85.7
I feel my MBHT provider does not do everything he/she should for my behavioral health care.	1.98	9.5
My MBHT provider is a real expert in taking care of behavioral health problems like mine.	4.39	92.7
I trust my MBHT provider to tell me if a mistake was made about my treatment.	4.40	95.2
I trust my MBHT provider to advocate for health and well-being with command.	4.36	88.1
I trust my MBHT provider to make appropriate behavioral health decisions while balancing command guidelines and policies.	4.33	90.5

APPENDIX F
FREQUENCIES AND MEAN RESPONSE FOR KEY UNIT LEADER SURVEY

Perceived Changes in BH Care on Post		
Question	**Mean response (1 = worsened; 5 = improved)**	**% indicating improvement**
Number of available resources for behavioral health care on post	4.42	97.5
Attitudes of Soldiers towards others seeking behavioral health care	3.92	77.5
Your attitude toward Soldiers seeking behavioral health care	3.80	60.0
Attitudes of those above you in your chain of command towards Soldiers seeking behavioral health care	3.95	65.0
Negative consequences for Soldiers seeking behavioral health care	3.80	57.5
Visibility of behavioral health providers within unit's garrison footprint	4.08	80.0
Program Satisfaction		
Question	**Mean response (1 = very dissatisfied; 5 = very satisfied)**	**% indicating "satisfied" or "very satisfied"**
Ease of making an appointment for your Soldiers with MBHT provider	4.33	89.8
How long your Soldiers has to wait for his/her appointment date with a MBHT provider	4.10	92.3
Ease of referring Soldiers to MBHT provider	4.39	86.8
Consistency of follow-up from MBHT providers regarding command-referred Soldiers	4.31	89.8
Quality of follow-up from MBHT provider regarding command-referred Soldiers	4.41	89.8
Ease of access to location of MBHT	4.28	87.2
Effectiveness of MBHT provider for Soldiers seeking help	3.95	76.9
Quality of your professional relationship with MBHT provider	4.38	84.6
Ease of your communication with MBHT provider	4.38	84.6
MBHT providers' support of mission readiness	4.26	87.2

MBHT Provider Trust		
Question	**Mean response (1 = low trust; 5 = high trust)**	**% indicating moderate to high trust**
Your MBHT provider will take his/her Soldiers seriously?	4.63	97.3
Waiting lists will never be too long?	4.00	81.6
Your MBHT can do everything?	3.66	65.8
Your MBHT provider will give Soldiers the best treatment?	4.13	84.2
Soldiers will be given information that they can understand?	4.11	79.0
Your MBHT provider will pay sufficient attention to his/her Soldiers?	4.34	92.1
Your MBHT provider knows everything about all sorts of behavioral health issues?	3.92	68.4
Your MBHT provider will make the right diagnosis?	3.97	79.0
A lot of care is taken to keep Soldiers' behavioral health information confidential?	4.47	89.5
Your MBHT provider will listen to his/her Soldiers?	4.53	97.4
Soldiers will get sufficient information about the cause of their problems?	4.18	81.6
Your MBHT provider will not give conflicting information?	4.11	79.0
Your MBHT provider will discuss things thoroughly with his/her Soldiers?	4.24	84.2
Your MBHT provider will give you feedback on Soldiers' issues that affect the health and well-being of your unit?	4.32	92.1

APPENDIX G
STATISTICAL TESTS ON RISK REDUCTION PROGRAM DATA FOR THE FIRST SIX MONTHS FOLLOWING REDEPLOYMENT

Risk Behavior	2/4 ID Incidence	3/4 ID Incidence	Chi Square Test	*p*-value
Deaths	2	5	$X^2(1) = 1.44$	n.s.
Accidents	18	14	$X^2(1) = 0.32$	n.s.
STDs/STIs	75	147	$X^2(1) = 7.97$	$p < .01$
Suicide attempts and gestures	2	10	$X^2(1) = 5.75$	$p < .05$
AWOL	15	10	$X^2(1) = 0.76$	n.s.
Drug offenses	8	14	$X^2(1) = 1.95$	n.s.
Alcohol offenses	23	15	$X^2(1) = 1.29$	n.s.
Traffic violations*	245	170	$X^2(1) = 9.51$	$p < .01$
Crimes against person	58	38	$X^2(1) = 3.17$	n.s.
Crimes against property	17	7	$X^2(1) = 3.66$	n.s.
Spouse abuse	14	36	$X^2(1) = 10.78$	$p < .01$
Child abuse	9	9	$X^2(1) = 0.01$	n.s.
Financial problems	71	140	$X^2(1) = 25.58$	$p < .001$
Positive urinalysis	18	95	$X^2(1) = 55.74$	$p < .001$

Note:
There was a change in the definition of traffic violations during the reporting period.