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Post-Deployment Psychological Screening: Interpreting and Scoring DD Form 2900

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The Post-Deployment Health Reassessment (PDHRA) program was established by the Department of Defense on March 10, 2005 to identify and address health concerns reported by service members three to six months following their return to home station. The PDHRA program was based, in part, on a post-deployment psychological screening program designed by the US Army Medical Research Unit – Europe (USAMRU-E) and implemented throughout the US Army – Europe (USAREUR). DD Form 2900 used in the PDHRA program contains scales also used in the USAREUR screening program. This report: (a) provides recommendations on interpreting specific elements of DD Form 2900; (b) highlights the importance of interviewing service members for multiple problem areas; and (c) provides a structured interview guide to help triage service members.

BACKGROUND

Post-deployment psychological screening in the US military is designed to improve service members' access to care following deployments. In an effort to enhance the utility of psychological screening, the US Army Medical Research Unit-Europe (USAMRU-E) in Heidelberg has been engaged in screening research since the Balkan operations in 1996 (see Wright, Huffman, Adler, & Castro, 2002, for a review). Over the years, USAMRU-E research has examined screening results across a range of operations (Adler, Wright, Huffman, Thomas, & Castro, 2002; Adler, Huffman, Bliese & Castro, 2005), and has developed the groundwork for validating primary screening instruments (Wright, Thomas, Adler, Ness, et al., 2005; Wright, Bliese, et al., 2005).

In 2004, USAMRU-E developed a short, valid screening instrument that could be administered and scored by medical or behavioral health technicians. The screening instrument was based on research from two blind validation studies (Bliese, Wright, Adler, & Thomas, 2004; Bliese, Wright, Adler, Thomas, & Hoge, 2004). One particularly important finding from these studies was that Soldiers reported a significant increase in psychological symptom levels at 90 to 120 days post-reintegration relative to immediate reintegration (Bliese, Wright, Adler & Thomas, 2004). This finding was consistent with other Walter Reed Army Institute of Research studies identifying high levels of mental health symptoms at three months post-deployment (e.g., Hoge, et al., 2004).

Based on USAMRU-E research, the US Army, Europe (USAREUR) implemented a 90-120 day post-deployment screening program in two USAREUR Divisions returning from Iraq. This implementation was executed in 2004 and 2005 using Division medical assets in conjunction with support from the Europe Regional Medical Command (ERMC), and provided the

prototype for a DoD-wide program. On March 10, 2005 the Assistant Secretary of Defense for Health Affairs issued a memorandum requiring all military services to conduct health reassessments of service members at three to six months post-deployment (Assistant Secretary of Defense for Health Affairs, 2005). This Post-Deployment Health Reassessment (PDHRA) policy was based, in part, on the USAREUR program.

As a way to standardize screening across services, Health Affairs developed Department of Defense Form 2900 (DD Form 2900) as part of the PDHRA program. Portions of DD Form 2900 contain elements of the validated screen used within USAREUR.

• Report Objectives

This research report has three goals. First, provide recommendations for scoring and interpreting DD Form 2900 screening items (Appendix A). Second, emphasize the importance of interviewing for multiple problem areas when service members trigger any one problem area (e.g., depression). Third, provide a structured clinical interview guide to be used in conjunction with the administration of DD Form 2900 (Appendix B).

In terms of screening content areas, Wright and colleagues (Wright, Thomas, Adler, Ness, et al., 2005; Bliese, Wright, Adler, & Thomas, 2004) identified six clinical dimensions as targets for screening: (1) relationship problems, (2) traumatic stress, (3) alcohol problems, (4) depression, (5) anger problems and (6) sleep problems. Screening instruments often also contain single items assessing suicidal ideation and homicidal ideation. DD Form 2900 has items assessing four of these six dimensions: relationship problems (question 8); traumatic stress (question 9); alcohol problems (question 10); and depression (question 11), as well as questions about suicidal and homicidal ideation that are asked by the primary care provider conducting the clinical interview.

The first goal of developing scoring recommendations for DD Form 2900 makes use of overlap between DD Form 2900 and USAMRU-E research. For instance, the single item assessing relationship problems in DD Form 2900 was included in a post-deployment validation study in 2005. Likewise, the traumatic stress, alcohol and depression items have been assessed in three blind-validation studies, and were also included in the USAREUR short screen. By relying on this research, we can identify patterns that optimize the sensitivity (ability to detect true positives) and specificity (number of false positives) of the DD Form 2900 items.

With regard to the second and third goals, research at USAMRU-E has demonstrated the importance of screening Soldiers for multiple dimensions. The effects of using this strategy will be illustrated using some of the dimensions on DD Form 2900. To assist in these interviews, we provide a structured clinical interview guide to facilitate triage assessment of each dimension discussed in the report as Appendix B (Wright, Adler, Bliese, Hoge, & Prayner, 2005).

• Current Studies: Sample and Procedure

The current report is based on analyses from three blind-validation studies conducted in USAREUR. The methods for these studies have been presented previously. Briefly, all of these studies involved use of a paper and pencil screening instrument that took about 20 minutes to complete and included important mental health clinical dimensions. Soldiers' responses to the scales on the primary screen were evaluated using cut-off criteria established in prior studies. Soldiers were then selected for a follow-up interview if they exceeded the established criteria on any of the clinical dimensions. A control or comparison group that included 20-30% of the Soldiers who scored below the established criteria was also selected to receive the same clinical interview.

Mental health clinical specialists carried out the follow-up interviews using a structured interview guide. These clinical providers were blind to the results of the primary screen. That is, they did not know whether the Soldiers they were interviewing were part of the comparison group or had exceeded criteria on one or more dimensions of the primary screen. Based on the structured interview, they made a determination as to whether or not referral for a complete behavioral health evaluation was indicated and the reason for the referral.

The first study was conducted with 767 Soldiers screened prior to their deployment to Iraq in 2004. Of the 767 Soldiers screened, 739 consented to having

their data analyzed for research purposes (96%). Of the consenting Soldiers, 356 Soldiers were interviewed by a clinical provider, including 164 who screening positive on the primary screen for a potential mental health problem and 192 randomly selected Soldiers who screened negative. These 356 Soldiers constitute the Pre-Deployment Sample.

The second study was conducted with Soldiers returning from combat in Iraq in 2004. Soldiers were screened as part of an in-depth psychological screening assessment requested by the unit's senior leadership during the first week of reintegration. In all, 1,604 Soldiers were screened, and 1,578 Soldiers (98%) consented to having their data subsequently analyzed for the purposes of improving the primary screen. Of the consenting Soldiers, 592 (38%) were selected to receive face-to-face structured interviews conducted by clinical providers during the screening process, including 218 who screened positive and 374 who screened negative. These 592 Soldiers comprise Post-Deployment Sample1.

The third study was conducted with Soldiers screened three months following their return from Iraq in 2005. This time period is most comparable to the time period for administering the DD Form 2900. In total, 780 Soldiers were screened and 724 (93%) consented to having their data analyzed for research purposes. Of the consenting Soldiers, 367 were interviewed, including 258 who screened positive and 109 who screened negative. These 367 Soldiers represent Post-Deployment Sample II.

The structured interview guide used by the mental health providers in the secondary screen was developed by USAMRU-E (Wright, Adler, et al., 2005) and based on the MINI, a validated structured interview (Sheehan, et al., 1998), and on the Diagnostic and Statistical Manual of Mental Disorders (4th ed.) (DSM-IV; American Psychiatric Association, 1994). The structured interview used assesses the same clinical dimensions as those covered in the primary screen. Thus, the primary screen can be validated by identifying those items on the primary screen that are the best predictors of clinical providers' recommendations for referral to subsequent behavioral health care. The examination of the congruence between primary screen items and clinical providers' independent evaluations comprise the core content of this report. Note that in this report the term "clinical provider" refers to the mental health technician or other mental health professional who conducted the clinical interview to determine if there was a need for further referral to a credentialed mental health professional.

It should be noted that there were two types of clinical referral – one that met specific established interview criteria for a particular clinical dimension, and one that was the result of clinical judgment. For the purposes of this report, the primary screen is compared to the established criteria of the structured interview guide. Also, it is also important to emphasize that recommendations for referral are not clinical diagnoses. The purpose of the interview was to evaluate whether a Soldier should be referred to a behavioral health credentialed professional for further and more complete evaluation.

REPORT OVERVIEW AND ASSUMPTIONS

• Overview

The current report provides psychometric analyses of the following DD Form 2900 dimensions: relationship problems (question 8), traumatic stress (question 9), alcohol problems (question 10) and depression (question 11). The purpose of these analyses is to examine scoring options and their impact on the sensitivity and specificity of the scales and items.

• Assumptions

There are three key assumptions that underlie the recommendations provided in this report.

Assess Mental Health Problems across Clinical Dimensions. Recent analyses demonstrate that the effectiveness of screening instruments for military samples is maximized by assessing multiple specific clinical dimensions (depression, traumatic stress, etc.) rather than relying on single scales that assess broad symptoms of distress (Wright, Thomas, Adler, Bliese, et al., 2005). Thus, our focus is to identify the best scales and the best possible scoring options for these items on a dimension-by-dimension basis.

Interview Soldiers on All Dimensions. Wright, Thomas, Adler, Bliese, et al. (2005) showed that combining multiple scales produces an instrument that, as a whole, is more sensitive than the individual scale components. This occurs because symptoms tend to be correlated. For instance, in Post-Deployment Sample II, a total of 20 Soldiers were referred for further evaluation of traumatic stress after being interviewed even though they had NOT been identified as positive by the traumatic stress screen. Follow-up analyses revealed 14 of these 20 Soldiers had been interviewed because they triggered either depression or alcohol. However, because the interviewers asked Soldiers questions related to all dimensions (depression, traumatic stress, etc.) the Soldiers were identified as having traumatic stress symptoms. Consequently, to maximize the value of screening, we recommend service members be interviewed for multiple dimensions if they trigger any one dimension. Appendix B (discussed in more detail later) provides a structured interview guide to facilitate this comprehensive triage process.

Create a Sensitive Test and Minimize False Positives. Screens have two competing demands: (a) avoid missing a large number of symptomatic service members by having a test that is *sensitive* enough to identify those with symptoms, and (b) *specific* enough to minimize the number of false positives. The goal of the PDHRA program is to ensure service members receive careful mental health triage. Note, however, that the scoring algorithms we suggest in this report were also chosen with a focus on the specificity of the screen (i.e., reducing the number of false positives). That is, we do not always recommend the most sensitive scoring option. The reason why we emphasize specificity is that the low prevalence rates for referrals (generally around 15%) lead to low positive predictive values unless specificity is high. Low positive predictive values, in turn, produce a large number of Soldiers receiving clinical interviews who do not need to have them. Therefore, to reduce the number of false positives in low prevalence situations, it is necessary to emphasize specificity. While we emphasize specificity, it is important to point out that the inter-relationships of clinical dimensions to each other helps to increase the overall sensitivity of the instrument if service members are assessed in triage interviews on multiple domains. This finding will be illustrated in this report; it has also been tested and validated using computer simulations carried out by USAMRU-E staff (Bliese, Wright, Adler & Cabrera, 2005). Thus, we will show that the screening system misses few symptomatic service members even when attention is paid to maximizing specificity, as long as service members are triaged in follow-up interviews on multiple dimensions.

DD FORM 2900 SCREENING ITEMS

• Relationship Problems (Question 8)

In DD Form 2900, relationship problems are assessed using a single item phrased:

> Since return from your deployment, have you had serious conflicts with your spouse, family members, close friends, or at work that continue to cause you worry or concern? (Yes, No, Unsure).

The key issue with scoring question 8 is how to code the "Unsure" response option. Table 1 provides the sensitivity and specificity in a sample of married Soldiers in the Post-Deployment Sample II. Considering the "Unsure" category as being a "No" provides a sensitivity value of 0.70 and relatively high specificity of 0.88. When the "Unsure category is used as a "Yes" response it increases sensitivity, but lowers specificity.

Table 1: Relationship Problems Post-Deployment Sample II (Married Only)

	Yes versus No/Unsure	
Clinical Provider	Negative	Positive
Negative	129	17
Positive	7	16
	Sensitivity	0.70
	Specificity	0.88
	Yes/Unsure versus No	
Clinical Provider	Negative	Positive
Negative	120	26
Positive	5	18
	Sensitivity	0.78
	Specificity	0.82

Table 2 replicates the results but includes individuals who stated they were in any relationships (not just married). This increases the total number of referrals by fifteen. The results are similar to those based only on married individuals in that higher specificity is observed when the unsure category is considered to be a "No", but higher sensitivity is observed when the unsure category is included as a "Yes".

Table 2: Relationship Problems Post-Deployment Sample II (Any Relationship)

	Yes versus No/Unsure	
Clinical Provider	Negative	Positive
Negative	169	22
Positive	16	22
	Sensitivity	0.58
	Specificity	0.88
	Yes/Unsure versus No	
Clinical Provider	Negative	Positive
Negative	154	37
Positive	12	26
	Sensitivity	0.68
	Specificity	0.81

Recommendation for Scoring Q8. There are only two possible scoring options to the relationship problem question. Considering those who answer “Unsure” to be "Yes" provides good sensitivity, but produces a relatively high number of false positives. Considering those who answer “Unsure” to be "No" improves specificity but reduces sensitivity. Despite the reduction in specificity, we recommend further evaluation of individuals who respond with “Unsure”.

• Traumatic Stress (Question 9)

The four items on DD Form 2900 used to assess traumatic stress have been included in previous screening studies and were used in the USAREUR short screen (Bliese, Wright, Adler, Thomas, & Hoge, 2004). The items were developed by Prins et al. (2004) and are referred to in the literature as the Primary Care – PTSD screen or PC-PTSD. The text box contains the items as presented in question 12 of DD Form 2796.

12. Have you ever had any experience that was so frightening, horrible, or upsetting that, IN THE PAST MONTH, you ....

No	Yes	
○	○	Have had any nightmares about it or thought about it when you did not want to?
○	○	Tried hard not to think about it or went out of your way to avoid situations that remind you of it?
○	○	Were constantly on guard, watchful, or easily startled?
○	○	Felt numb or detached from others, activities, or your surroundings?

Table 3 shows how various cut-off options correspond to clinical providers' ratings based on Post-Deployment

Table 3: Post-Deployment Sample I

	Primary Screen with 1 or More Positive Response to Question 9 Trauma Items	
Clinical Provider	Negative	Positive
Negative	405	148
Positive	5	32
	Sensitivity	0.86
	Specificity	0.73
	Primary Screen with 2 or More Positive Response to Question 9 Trauma Items	
Clinical Provider	Negative	Positive
Negative	488	65
Positive	10	27
	Sensitivity	0.73
	Specificity	0.88
	Primary Screen with 3 or More Positive Response to Question 9 Trauma Items	
Clinical Provider	Negative	Positive
Negative	538	15
Positive	20	17
	Sensitivity	0.46
	Specificity	0.97
	Primary Screen with 4 or More Positive Response to Question 9 Trauma Items	
Clinical Provider	Negative	Positive
Negative	552	1
Positive	29	8
	Sensitivity	0.22
	Specificity	1.00

Sample I. A cut-off value of two or more "Yes" responses has acceptable sensitivity and specificity.

The results were replicated in Post-Deployment Sample II (see Table 4) and sensitivity and specificity values were similar.

Table 4: Post-Deployment Sample II

	Primary Screen with 1 or More Positive Response to Question 9 Trauma Items	
Clinical Provider	Negative	Positive
Negative	165	108
Positive	11	83
	Sensitivity	0.88
	Specificity	0.60

	Primary Screen with 2 or More Positive Response to Question 9 Trauma Items	
Clinical Provider	Negative	Positive
Negative	213	60
Positive	20	74
	Sensitivity	0.79
	Specificity	0.78

	Primary Screen with 3 or More Positive Response to Question 9 Trauma Items	
Clinical Provider	Negative	Positive
Negative	251	22
Positive	42	52
	Sensitivity	0.55
	Specificity	0.92

	Primary Screen with 4 or More Positive Response to Question 9 Trauma Items	
Clinical Provider	Negative	Positive
Negative	263	10
Positive	74	20
	Sensitivity	0.21
	Specificity	0.96

Recommendation for Scoring Q9. The analyses of results from both post-deployment samples indicate the best balance of sensitivity and specificity is associated with a cut-off value of two or more positive responses. A cut-off of two produces a relatively low specificity value; however, requiring three or more positive responses produces a large decline in sensitivity values. Thus, we recommend scoring individuals as positive if they endorse two of the four items.

• Alcohol Problems (Question 10)

Question 10 on DD Form 2900 assesses alcohol using two items adopted from Brown, Leonard, Saunders, and Papasouliotis (2001). The two items are:

1. In the past month have you used alcohol more than you meant to? (Yes, No)
2. In the past month have you felt you wanted or needed to cut down on your drinking? (Yes, No)

Table 6 provides the classification summary associated with using these two items as a primary screen on the Pre-Deployment Sample. The sensitivity of these two items is low regardless of the scoring option.

Table 6: Alcohol Pre-Deployment Sample

	Primary Screen with One of the Two Alcohol Items Endorsed	
Clinical Provider	Negative	Positive
Negative	280	51
Positive	9	15
	Sensitivity	0.63
	Specificity	0.85

	Primary Screen with Two of the Two Alcohol Items Endorsed	
Clinical Provider	Negative	Positive
Negative	311	20
Positive	16	8
	Sensitivity	0.33
	Specificity	0.94

Table 7 provides a replication using Post-Deployment Sample II. Notice that the sensitivity values are better in the post-deployment sample. Indeed, the requirement that both items be positive provides reasonable sensitivity and specificity values.

Table 7: Alcohol Post-Deployment Sample II

	Primary Screen with One of the Two Alcohol Items Endorsed	
Clinical Provider	Negative	Positive
Negative	217	120
Positive	1	29
	Sensitivity	0.97
	Specificity	0.64

	Primary Screen with Two of the Two Alcohol Items Endorsed	
Clinical Provider	Negative	Positive
Negative	289	48
Positive	8	22
	Sensitivity	0.73
	Specificity	0.86

Recommendation for Scoring Q10. Perform clinical interviews with individuals who provide "Yes" responses to both items. Note that in the post-deployment sample, these items provide good sensitivity and specificity values.

• Depression (Question 11)

To assess depression, DD Form 2900 uses the first two stem depression questions from the Patient Health Questionnaire (PHQ; Spitzer, Kroenke, & Williams, 1999). These items are:

> Over the last 2 weeks, how often have you been bothered by any of the following problems? (Not at All, Few or Several Days, More than Half the Days, Nearly Every Day)
>
> 1. Little interest or pleasure in doing things
> 2. Feeling down, depressed, or hopeless

Spitzer et al. (1999) recommend coding the PHQ such that ratings of "More than Half the Days", and "Nearly Every Day" receive a value of 1 (at risk), and responses of "Not at All", and "Few or Several Days" receive values of 0 (not at risk). Using this coding scheme, there are two possible cut-off values for Question 11 – either one of the items or both of the items are coded as being at risk. Note that the interview criteria for depression also relied on these response options. Specifically, interviewers used the criteria of having depression symptoms "More than Half the Days" when determining need for referral, rather than nearly every day per DSM-IV (Wright, Adler, et al., 2005).

Table 8 shows the comparison between primary screen and interview results from Post-Deployment Sample II. Simply triggering one of the questions produces reasonable sensitivity and specificity.

Table 8: Depression Post-Deployment Sample II

	Either Item 1 or Item 2 "More than Half the Days"	
Clinical Provider	Negative	Positive
Negative	276	45
Positive	12	33
	Sensitivity	0.73
	Specificity	0.86

	Both Item 1 and Item 2 "More than Half the Days"	
Clinical Provider	Negative	Positive
Negative	312	10
Positive	31	14
	Sensitivity	0.31
	Specificity	0.97

Replications with Post-Deployment Sample I revealed a sensitivity of 0.50 and a specificity of 0.95 when one of the two items was positively endorsed. In the Pre-Deployment Sample, the corresponding values were 0.65 and 0.89.

Recommendation for Scoring Q11. In all cases, the scoring option of interviewing any individual who responds "More than Half the Days" or "Nearly Every Day" to either of the two items produced specificity values over 0.85. There was range in the sensitivity; however, the value of 0.73 in the Post-Deployment II Sample is acceptable. Furthermore, the Post-Deployment III sample had the largest number of referrals of the three samples and is also most similar to units completing the PDHRA in that the data were collected at three months post-deployment. Thus, we

recommend interviewing individuals who respond "More than Half the Days" or "Nearly Every Day" to either of the two items.

• Suggested DD Form 2900 Scoring template

Appendix A provides an illustration for scoring DD Form 2900 questions 8, 9, 10 and 11 based on the preceding analyses.

• Performance of Instrument as a Whole

Previously we stated that the sensitivity of screening instruments could be improved by interviewing individuals for multiple dimensions if they trigger any one dimension. To illustrate this point, we examine the sensitivity and specificity of a combined screening instrument in its relation to overall referral rates. Recall that in our blind validation studies, Soldiers were interviewed on all dimensions because the interviewer did not know if the Soldier had triggered a dimension on the screen or if the Soldier was a control.

The combined screen and referral rates discussed in this section are based on the Post-Deployment II sample. Overall referrals were calculated by recording whether a Soldier was referred for traumatic stress, depression or alcohol. Relationship problems were omitted to avoid reductions in the sample size from individuals not in relationships.

The combined screening instrument used the scoring guides in this report to create a composite variable indicating whether an individual exceeded criteria on the primary screen dimensions for traumatic stress, alcohol or depression. Table 9 provides the results of the combined instrument. Notice the overall sensitivity of the combined instrument is excellent (0.92) and well-above the sensitivity of any of the single dimensions. For reference, recall that in the Post-Deployment II sample, the sensitivity of traumatic stress was 0.79; the sensitivity of the alcohol screen was 0.73, and the sensitivity of the depression screen was 0.73.

Table 9 shows that nearly all of the individuals referred for traumatic stress, alcohol and depression triggered at least one dimension on the screening instrument.

Clearly, the combined approach coupled with interviews that cover all dimensions approaches the PDHRA goal of identifying all service members in need. Consider, in addition, that the PDHRA instrument as a whole is likely to do even better at detecting symptomatic service members because it contains several other items such as relationship problems and self-referral questions that will help in detection but are not included in the current example.

Table 9: Combined Instrument

	Positive on Traumatic Stress, Alcohol Problems or Depression	
Clinical Provider	Negative	Positive
Negative	157	87
Positive	10	113
	Sensitivity	0.92
	Specificity	0.64

While using combined scales increases sensitivity, it is also important to note that it does so at a cost in specificity. At first glance, the specificity of 0.64 appears problematic. However, in interpreting this value two things need to be considered. First, the cost associated with these 87 individuals comes in the form of needing to conduct a 15 to 20 minute triage interview on each by a mental health provider. Second, in considering how the DD Form 2900 will work when applied, it is important to point out Table 9 omits information from individuals who were <u>not</u> interviewed in the study because they were <u>not</u> positive on the screen and were <u>not</u> selected as controls. In the Post-Deployment Sample II, 357 individuals fall into this category.

Table 9 suggests that 6% (10/167) of those who screen negative using the cut-offs suggested in this report would be referred if interviewed. Based on this, we estimate that 6% of the 357, or 21, individuals would be negative on the screening instrument, but would have been referred if they had been included in the interview portion of the study. The remaining 336 would be correctly classified as negative on the screen and not in need of a referral. Adding these values to Table 9 allows us to estimate the extrapolated performance of

the screening instrument in applied settings. The results are provided in Table 10.

When the estimated population numbers are included in Table 10, the specificity increases significantly. The sensitivity drops with the addition of the 21 misclassified to the original 10 individuals; however, it still remains acceptable and generally above the values associated with any of the specific dimensions. Again, this sensitivity value also fails to consider that DD Form 2900 has items for relationship problems and self-referrals which would almost certainly aid in detection.

Table 10: Estimated Combined Instrument

	Positive on Traumatic Stress, Alcohol Problems or Depression	
Clinical Provider	Negative	Positive
Negative	493	87
Positive	31	113
	Sensitivity	0.78
	Specificity	0.85

In short, the research shows that the use of DD Form 2900 with an interview protocol that screens service members on multiple dimensions is effective in detecting individuals in need of mental health follow-up and does so without producing unacceptable numbers of false positives.

SUPPLEMENTAL ITEMS TO DD FORM 2900

Content validity studies conducted by USAMRU-E with pre- and post-deployment samples suggested the importance of including measures of anger and sleep problems in addition to relationship problems, traumatic stress, depression, and alcohol problems (Bliese, Wright, Adler, & Thomas, 2004; Wright, Thomas, Adler, Ness et al., 2005). Anger and sleep symptoms are some of the most common complaints by returning service members and are part of various mental health diagnoses. Anger and sleep problems are embedded to some degree in DD Form 2900 through the use of single items, but the specific items have not yet been validated. The USAREUR screening program developed measures of these two dimensions, which are not included on DD Form 2900. This section includes a discussion of the validation of these two scales.

• Anger Problems

In this report, we treat Question 8 of the DD Form 2900 as being a relationship problem screen. The item, however, could also be considered an anger screen. Recall, the item states:

> Since return from your deployment, have you had serious conflicts with your spouse, family members, close friends, or at work that continue to cause you worry or concern? (Yes, No, Unsure).

The reason why Question 8 was discussed as a relationship screen is that its performance as an anger screen or as a combined relationship/anger screen was not satisfactory. With respect to anger, the sensitivity was not above 0.45 (specificity was 0.80). In a combined relationship/anger outcome, the sensitivity was better but still relatively low at 0.54 (specificity was 0.85). In short, Question 8 does assess anger, but appears to be a better screen of relationship problems.

In the USAREUR short screen, anger problems are assessed using modified versions of representative anger items published in the open literature (e.g., Buss & Perry, 1992).

Validation analyses for the anger screen identified three items that corresponded to clinical providers' referrals for anger problems. These three items are:

> During the PAST MONTH, how often have you been bothered by any of the following problems? (Not at All, Rarely, Sometimes, Often, Very Often)
>
> 1. Became so angry that you have broken things.
> 2. Was on the verge of losing control of your anger.
> 3. Flew off the handle for no good reason.

Items were recoded as 1 (indicating risk) if they were endorsed with "Sometimes", "Often" or "Very Often" and 0 (not at risk) if they were endorsed "not at all" or "rarely". Analyses revealed that requiring a Soldier to

score positively on two of the three anger items resulted in a sensitivity of 0.53 and a specificity of 0.97 (Post-Deployment Sample I). A second replication with the Pre-Deployment Sample yielded sensitivity and specificity values of 0.59 and 0.91, respectively.

A third replication with the Post-Deployment Sample II is presented in Table 11. Notice that the specificity is lower than in the two previous samples (0.84); however, the sensitivity is better at 0.70.

Table 11: Anger Post-Deployment Sample II

	One of the Three Anger Items Endorsed	
Clinical Provider	Negative	Positive
Negative	222	104
Positive	7	33
	Sensitivity	0.83
	Specificity	0.68

	Two of the Three Anger Items Endorsed	
Clinical Provider	Negative	Positive
Negative	273	53
Positive	12	28
	Sensitivity	0.70
	Specificity	0.84

	All Anger Items Endorsed	
Clinical Provider	Negative	Positive
Negative	307	19
Positive	25	15
	Sensitivity	0.38
	Specificity	0.94

In evaluating the properties of the anger scale, it is also important to consider the scale in combination with the existing dimensions in the DD Form 2900. The data suggest that adding the anger scale, coding the endorsement of two of the three items as positive, yields only a marginal improvement in the ability to detect those in need of referrals for traumatic stress, depression and alcohol. Recall in Table 9, there were ten individuals missed with the combined traumatic stress, alcohol problem and depression screen. Including the anger screen identifies an additional four individuals but creates an additional 13 false positives.

Table 12 illustrates the case where anger referrals are also included as an outcome. That is, where individuals are referred for anger problems along with traumatic stress, depression, and alcohol problems.

Table 12: Combined Instrument and Anger

	Positive on Traumatic Stress, Alcohol Problems, Depression or Anger	
Clinical Provider	Negative	Positive
Negative	140	94
Positive	10	123
	Sensitivity	0.92
	Specificity	0.60

Sensitivity and specificity values in Table 12 are similar to those in Table 9. The major difference between the two is that in Table 12, 133 (123+10) individuals are referred based on the combined screen, while 123 (113+10) are referred based on the combined screen in Table 9. This is a marginal increase in the referral load, and thus it appears that the existing questions on the DD Form 2900 do a fair job of detecting the majority of Soldiers in need of further mental health evaluation. If clinicians are particularly concerned about anger, then the above anger screen should be considered.

• Sleep Problems

There is one item on DD Form 2900 that addresses sleep problems related to deployment (6a), “Problems sleeping or still feeling tired after sleeping”. There may be merit in including a more detailed assessment of sleep problems at post-deployment, for two reasons. First, sleep problems are commonly associated with both traumatic stress and depression. Second, previous USAMRU-E research has identified sleep problems as an important clinical dimension at post-deployment (Bliese, Wright, Adler, & Thomas, 2004). In one study conducted by USAMRU-E (Post-Deployment Sample II), an evaluation of sleep problems was included in both the

primary screen as well as the clinical interview and interviewers had the option of including referral for a sleep problem on the interview form. Sleep problems were the second most frequent referral category after traumatic stress, but often overlapped with other reasons for mental health referral.

In order to develop a post-deployment sleep problem screen, a series of questions concerning sleep were adapted from Morin (1993). Ployhart (2005) conducted a complete psychometric analysis of Morin's seven sleep items that included estimating polytomous Item Response Theory (IRT) models. From these analyses, four items were identified. These items are:

> In the last two weeks, please rate the severity of your sleep problems:
>
> 1. Difficulty falling asleep (none, mild, moderate, severe, very severe)
> 2. Difficulty staying asleep (none, mild moderate, severe, very severe)
> 3. How satisfied/dissatisfied are you with your current sleep pattern (Very Satisfied, Satisfied, Neutral, Dissatisfied, Very Dissatisfied)
> 4. To what extend do you consider your sleep problem to interfere with your daily functioning (e.g., daytime fatigue, ability to function at work/daily chores, concentration, memory, mood, etc.) (Not at All, A Little, Somewhat, Much, Very Much Interfering)

IRT analyses suggested cut-off values such that: (a) Items 1 and 2 were coded at risk if Soldiers provided responses of "moderate", "severe" or "very severe"; (b) Item 3 was coded at risk if endorsed with "Dissatisfied" or "Very Dissatisfied"; (c) Item 4 was coded at risk with responses of "Somewhat", "Much" or "Very Much Interfering".

Referrals based on DSM IV criteria for sleep problems were paired with the various cut-off values for the four sleep items (see Table 13). Notice that the sensitivity and specificity values associated with scoring positive on two of the four items are adequate (0.74 and 0.76, respectively). This coding option, however, produces a high number of false positives. Consequently, we recommend using a cut-off value of 3. Future research should examine how these items perform in other samples.

Table 13: Sleep Post-Deployment Sample II

	One of the Four Sleep Items Endorsed	
Clinical Provider	Negative	Positive
Negative	180	118
Positive	9	57
	Sensitivity	0.86
	Specificity	0.60

	Two of the Four Sleep Items Endorsed	
Clinical Provider	Negative	Positive
Negative	225	73
Positive	17	49
	Sensitivity	0.74
	Specificity	0.76

	Three of the Four Sleep Items Endorsed	
Clinical Provider	Negative	Positive
Negative	252	46
Positive	32	34
	Sensitivity	0.52
	Specificity	0.85

	All of the Sleep Items Endorsed	
Clinical Provider	Negative	Positive
Negative	278	20
Positive	48	18
	Sensitivity	0.27
	Specificity	0.93

As was the case with anger, adding sleep to the screening dimensions of traumatic stress, depression and alcohol problems produces slight increases in one's ability to detect those in need of referrals for traumatic stress, depression and alcohol problems. Three of the 10 individuals missed in Table 9 are identified by the sleep scale. The drop in specificity is identical to that

observed with anger in that the scale produced 13 more false positives.

Table 14 shows the consequences of including a referral for sleep problems. The major difference is that 148 (126+22) individuals are referred rather than the 123 (113+10) when referrals did not include sleep problems but were limited to traumatic stress, depression and alcohol problems as they are in Table 9. This referral increase reflects the fact that sleep problems are commonly reported by Soldiers, but is counterbalanced by a drop in specificity. Since sleep disorders are infrequently independent of other mental health problems in Soldiers, it is not clear at this time if referrals for sleep problems are clinically relevant. Further research to assess the degree of overlap with other conditions and the functional impairment associated with independent sleep symptoms is important.

Table 14: Combined Instrument and Sleep

	Positive on Traumatic Stress, Alcohol Problems, Depression or Sleep	
Clinical Provider	Negative	Positive
Negative	129	90
Positive	22	126
	Sensitivity	0.85
	Specificity	0.59

• High Risk Items

In addition to the six clinical dimensions detailed above, DD Form 2900 includes two questions that assess suicidal and homicidal ideation that the health care provider completes during the interview. Endorsement of either of these high-risk items requires further evaluation by the clinician to determine if an urgent referral to mental health services is indicated.

Suicidal Ideation: Currently, DD Form 2900 includes item 9 of the PHQ for Depression (Spitzer et al., 1999) to assess suicidal ideation, but as an item health care providers ask of service members. It is not an item service members complete on DD Form 2900. The item is:

> Over the past month have you been bothered by thoughts that you would be better off dead or hurting yourself in some way? (Yes or No).

Further assessment by the health care provider occurs if the service member endorses "Yes".

Harm to others: A final item that is included in the DD Form 2900 in the provider section is an item assessing whether a service member is having thoughts of harming others. The item is:

> Since return from your deployment, have you had thoughts or concerns that you might hurt or lose control with someone? (Yes, No, Unsure).

A "Yes" or "Unsure" response to this item is considered a trigger for further assessment by a clinical provider.

STRUCTURED INTERVIEW GUIDE

As previously noted, the USAMRU-E psychological screening research program has not only identified relevant clinical dimensions to be used in screening and developed optimal items and cut-offs, but also designed a structured interview guide for follow-up assessment. This guide can be used by clinicians to further evaluate service members who identify mental health concerns on the DD Form 2900. The USAMRU-E interview guide includes modules that correspond to each of the clinical dimensions with recommended diagnostic decision-making rules based on DSM-IV criteria (American Psychological Association, 1994).

See Wright, Adler, Bliese, et al. (2005) for a complete report explaining the background of the interview guide and issues associated with implementation of the screening program. A copy of the interview guide is included in Appendix B. Note that while the interview guide is long, it contains a number of skip patterns and, in most cases, takes approximately 15 to 20 minutes to complete.

SUMMARY AND NOTE TO CLINICIANS ADMINISTERING FORM 2900.

This report details extensive research data used to validate the mental health items in DD Form 2900 and is designed to help interpret items on the form. Primary care clinicians responsible for administering DD Form 2900 should consider the recommendations for scoring as general guidelines to prompt them to ask further questions. The cutoff scores recommended in this report should NOT be used alone to determine referral to specialty mental health services. For example, if a service member endorses one or more of the depression items, or two or more of the traumatic stress items, this should prompt the interviewing clinician to ask further questions to assess the following: (a) if there are other symptoms of these conditions, (b) if the symptoms are severe enough to interfere with functioning, and (c) if a referral for further evaluation and treatment is necessary. Referral may be made to primary care, specialty mental health, or other services. To facilitate this brief clinical interview, clinicians may choose to use the structured interview guide in Appendix B.

In most of the studies of deployment psychological screening, only about half of Soldiers who exceeded criteria on the primary screen received a referral for further evaluation after a brief clinical interview (Wright, et. al., 2002). Reasons that Soldiers who screened positive were not referred included misunderstanding the questions, moderate symptoms that did not interfere with functioning, absence of other symptoms of the disorders, and false positives due to the test properties.

It is important to recognize that even the best psychological screening tests have generally modest predictive value. For example, if the true prevalence of PTSD, depression, or alcohol problems requiring treatment is 15% among a group of Soldiers, then a test with specificity of 0.85 (such as in Table 10) will yield a positive predictive value of 0.50. This means that the screen will identify half of all Soldiers who require follow-up evaluation. However, the goal of screening is also to provide service members with the opportunity to self-refer. Thus, the predictive value and the increased opportunity for self-referral combine to provide the rationale for screening.

In summary, this report confirms the validity of DD Form 2900 items mandated for the PDHRA process at three to six months post-deployment and provides general guidelines for interpreting the items. The optimal cutoff scores for each dimension recommended in this report are intended to provide prompts for further questions by the interviewing clinician and guide them in their decisions about whether or not further services are required.

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Appendix A
Post-Deployment Health Reassessment (PDHRA)
Scoring Guide

Please use the following Scoring Template for Questions 8-16.

	YES	NO	UNSURE
8. Since return from your deployment, have you had serious c… ur spo… or at wor… o cau… concern?	Cut-off 8: → **Yes or Unsure** O	O	O

9. How you had any experience that was so frightening, horrible, upsetting that IN THE PAST MONTH YOU…	YES	NO
a. Have had nightmares about it or thought about it when you did not want to	O	O
b. Tried hard not to think about it or went out of your way to avoid situations that remind you of it	O	O
c. Were constantly on guard, watchful, or e…	O	O
d. Felt numb or detached from others, activities, or your surroundings	O	O

Cut-off 9: → **2 or more**

10. IN THE PAST MONTH…	YES	NO
a. Did you use alcohol more than you meant to?	O	O
b. Have you felt that you wanted or needed to cu… …nking?	O	O

Cut-off 10: → **2**

11. Over the PAST MONTH, have you been bothered by the following problems?	NOT AT ALL	FEW OR SEVERAL DAYS	MORE THAN HALF THE DAYS	NEARLY EVERY DAY
a. Little interest or pleasure in doing things			O	O
b. Feeling down, depressed, or hopeless			O	O

Cut-off 11: → **1 or more**

12. If you checked off any problems or concerns on this questionnaire, how difficult have these problems made it for y… …ke care of things at home, or get along with other pe…

O Not… | Cut-off 12: → **Very difficult or Extremely difficult** | O Very difficult | O Extremely difficult

	YES	NO
13. Would you like to schedule a visit with a healthc… …rther discuss your health concern(s)?	O	O
14. Are you currently interested in receiving informa… …e for a… stress, emotional or alcohol concern?	O	O
15. Are you currently interested in receiving assista… …r relationship concern?	O	O
16. Would you like to schedule a visit with a chaplai… …y supp… counselor?	O	O

Cut-off 13: → **Yes**
Cut-off 14: → **Yes**
Cut-off 15: → **Yes**
Cut-off 16: → **Yes**

APPENDIX B
POST-DEPLOYMENT PSYCHOLOGICAL SCREENING STRUCTURED INTERVIEW

v. Nov 2005

Date of Interview: _____

Date Service Member returned from deployment: _____

Service Member's Name: _____

Interviewer's Name: _____

Social Security Number

_____ - _____ - _____

0	0	0	0	0	0	0	0	0	
1	1	1	1	1	1	1	1	1	
2	2	2	2	2	2	2	2	2	
3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	
7	7	7	7	7	7	7	7	7	
8	8	8	8	8	8	8	8	8	
9	9	9	9	9	9	9	9	9	

Points to address: (Do NOT read verbatim)

- Point of Screening – proactive attempt for early identification and follow-up
- Point of Interview – to make sure the screening survey is not missing anything

INTRODUCTION:

"I am (name & MOS) and a part of the screening team. I am going to ask you some questions that may sound similar to some of the survey questions that you just completed. These are structured questions that we are asking all service members who are being interviewed. We're asking these questions so that we can check to see if the screening survey is doing its job. And now I'd like to begin with the first question."

NOTE:

Shaded areas of interview guide are instructions to the clinical interviewer and should NOT be read to the service member.

Arrows (⟶) are decision points for the clinical interviewer.

The Structured Interview Guide is based on the M.I.N.I. (Sheehan, D.V., Lecrubier, Y., Sheehan, K.H., Amorim, P., Janavs, J., Weiller, E., Hergueta, T., Baker, R., Dunbar, G.C. (1998). The Mini-International Neuropsychiatric Interview (M.I.N.I): The development and validation of a structured diagnostic psychiatric interview for DSM-IV and ICD-10. *Journal of Clinical Psychiatry*, 59, Suppl 20, 22-33).

MODULE 1 – Depression

	YES	NO
1a. Have you been consistently depressed or down, most of the day, **NEARLY EVERY DAY**, for the past two weeks?	O	O
→ IS QUESTION **1a.** CODED **YES**? IF **YES** CONTINUE WITH ITEM **2**. IF **NO** CONTINUE WITH ITEM **1b**, directly below.		
1b. Have you been consistently depressed or down, most of the day, **MORE THAN HALF THE DAYS**, for the past two weeks?	O	O
2. In the past two weeks, have you been much less interested or lost pleasure in most things?	O	O
→ IF QUESTION 1 **OR** 2 IS CODED **YES** CONTINUE TO THE ITEMS BELOW. IF **NO** SKIP TO MODULE 2 ON THE NEXT PAGE.	O	O

Over the past two weeks, when you felt depressed or uninterested:	YES	NO	If NO, "More than half the Days?" YES	If NO, "More than half the Days?" NO
3. Was your appetite decreased or increased nearly every day?	O	O	O	O
4. Did you have difficulty sleeping nearly every night, such as difficulty falling asleep, waking up in the middle of the night, early morning wakening or sleeping excessively?	O	O	O	O
5. Did you talk or move more slowly than normal or were you fidgety, restless or having trouble sitting still almost every day?	O	O	O	O
6. Did you feel tired or without energy almost every day?	O	O	O	O
7. Did you feel worthless or guilty almost every day?	O	O	O	O
8. Did you have difficulty concentrating or making decisions almost every day?	O	O	O	O

	YES	NO	If NO, "Occasionally?" YES	If NO, "Occasionally?" NO
9. Did you <u>repeatedly</u> consider hurting yourself, feel suicidal, or wish that you were dead?	O	O	O	O

ADDITIONAL QUESTIONS FOR BACKGROUND INFORMATION:	YES	NO	If NO, "Somewhat?"
- Did the symptoms of depression cause you significant distress or impair your ability to function at work, socially, or in some other important way?	O	O	O
- During your lifetime, did you have other periods of two weeks or more when you felt depressed or uninterested in most things, and had most of the problems we just talked about?	O	O	
→ ARE **5** OR MORE ANSWERS (**1-9**) CODED **YES (on either scale)**? IF **YES** CONTINUE TO THE ITEMS BELOW. IF **NO** SKIP TO MODULE 2 ON THE NEXT PAGE.	O	O	

→ DETERMINE TYPE OF FOLLOW-UP REQUIRED BELOW (ASSESS INTENSITY OF PROBLEM):

- O FOLLOW-UP NOT NECESSARY, REASON_____
- O STANDARD FOLLOW-UP
- O IMMEDIATE FOLLOW-UP

GO TO MODULE ON THE NEXT PAGE

MODULE 2 - Suicidality

	NO	YES	Points
In the past month did you:			
Think that you would be better off dead or wish you were dead?	O	O	1
Want to harm yourself?	O	O	2
Think about suicide?	O	O	6
Have a suicide plan?	O	O	10
Attempt suicide?	O	O	10
In your lifetime, did you ever make a suicide attempt?	O	O	4
→ IS AT LEAST **1** OF THE ABOVE CODED **YES**? IF **YES** CONTINUE TO THE ITEMS BELOW. IF **NO** SKIP TO MODULE 3 ON THE NEXT PAGE.	O	O	

ADD THE TOTAL NUMBER OF POINTS FOR THE ANSWERS IN THIS MODULE

→ AND SPECIFY LEVEL OF SUICIDE RISK AS FOLLOWS: TOTAL: _____

- O 1-5 POINTS **LOW** – STANDARD FOLLOW-UP
- O ≥ 6 POINTS **MODERATE TO HIGH** - IMMEDIATE FOLLOW-UP

→ DETERMINE TYPE OF FOLLOW-UP REQUIRED:

- O FOLLOW-UP NOT NECESSARY, REASON:_____

  _____
- O STANDARD FOLLOW-UP
- O IMMEDIATE FOLLOW-UP

GO TO MODULE ON THE NEXT PAGE

MODULE 3 - PTSD

	NO	YES
A. Have you **EVER** experienced or witnessed or had to deal with an extremely traumatic event, (for example, actual or threatened death or serious injury to you or to someone else)?	O	O
→ IF **NO** SKIP TO MODULE 4 ON THE NEXT PAGE. IF **YES** CONTINUE TO THE ITEMS BELOW AND ASK ALL QUESTIONS.		
B. Did you respond with intense fear, helplessness, or horror?	O	O

In the past month, have you re-experienced the event in a distressing way, such as:	**NO**	**YES**
1. Intense recollections? (e.g., images or thoughts of the event)	O	O
2. Dreams?	O	O
3. Flashbacks? (e.g., acting or feeling as if the event were happening again)	O	O
4. Intense distress in reaction to something that reminds you of the event?	O	O
5. Physical reactions? (e.g., increased heart rate)	O	O
In the past month:	**NO**	**YES**
6. Have you avoided thinking about the event?	O	O
7. Have you avoided things that remind you of the event?	O	O
8. Have you had trouble recalling some important part of what happened?	O	O
9. Have you become less interested in being with your friends?	O	O
10. Have you felt detached or estranged from others?	O	O
11. Have you noticed that your feelings are numbed? (e.g., that you have less ability to feel emotions?)	O	O
12. Have you felt that your life will be shortened or that you will die sooner than other people?	O	O
In the past month:	**NO**	**YES**
13. Have you had more difficulty sleeping?	O	O
14. Were you especially irritable or did you have outbursts of anger?	O	O
15. Have you had difficulty concentrating?	O	O
16. Were you nervous or constantly on your guard?	O	O
17. Were you easily startled?	O	O

During the past month, have these problems significantly interfered with your work or social activities, or caused significant distress?	**NO**	**YES**
	O	O

→ ARE 6 OR MORE ANSWERS **(1-17)** CODED **YES**? IF YES, CONTINUE TO THE ITEMS BELOW. IF **NO** SKIP TO MODULE **4**.	**NO**	**YES**
	O	O

DETERMINE TYPE OF FOLLOW-UP REQUIRED BELOW (ASSESS INTENSITY OF PROBLEM).

- O FOLLOW-UP NOT NECESSARY, REASON_____
- O STANDARD FOLLOW-UP
- O IMMEDIATE FOLLOW-UP

GO TO MODULE ON THE NEXT PAGE

MODULE 4 – Harm to Others

	NO	YES
During the past month and up to today:		
1. Have you felt that you could not control your urge to harm others, such as a unit member or friend?	O	O
2. Were you on the verge of losing control of your anger?	O	O
→ IS AT LEAST **1** OF THE ABOVE ITEMS CODED **YES**? IF **YES** CONTINUE TO THE ITEMS BELOW. IF **NO** SKIP TO MODULE 5 BELOW.	O	O

	NO	YES
1. In the past month did you have a plan to physically harm others?	O	O
2. In the past month did you try to physically harm others?	O	O
3. Other than on combat missions, have you physically harmed others in the past?	O	O
→ IS AT LEAST **1** OF THE ABOVE ITEMS CODED **YES**? IF **YES,** determine type of follow-up required. IF **NO** SKIP TO MODULE 5 BELOW.	O	O

→ DETERMINE TYPE OF FOLLOW-UP REQUIRED:

- O FOLLOW-UP NOT NECESSARY, REASON: _____
- O STANDARD FOLLOW-UP
- O IMMEDIATE FOLLOW-UP

GO TO MODULE BELOW

MODULE 5 - Relationship Problems

	NO	YES
1. Are you married or in a relationship with a significant other?	O	O
2. Are you currently going through a separation or divorce?	O	O
→ IS AT LEAST **1** OF THE ABOVE ITEMS CODED **YES**? IF **YES** CONTINUE TO THE ITEMS BELOW. IF **NO** SKIP TO MODULE 6 ON THE NEXT PAGE.	O	O

	NO	YES
1. Have you been having any serious problems in your marriage (or relationship with your significant other), such as serious conflict, abuse, infidelity, substance abuse, and/or serious financial problems?	O	O
2. Do you anticipate having serious conflict with your spouse or significant other in the next few months? IF **YES**, REASON: _____	O	O
→ IF **YES** TO **EITHER #1 OR #2**, ASSESS INTENSITY OF PROBLEM AND IF FOLLOW-UP IS NECESSARY INDICATE BELOW. IF **NO** SKIP TO MODULE 6 ON THE NEXT PAGE.		

- O FOLLOW-UP NOT NECESSARY, REASON:_____
- O STANDARD FOLLOW-UP
- O IMMEDIATE FOLLOW-UP

GO TO MODULE ON THE NEXT PAGE

MODULE 6 – Alcohol Use Disorders Identification Test

BEGIN BY SAYING "Now I am going to ask you some questions about your use of alcoholic beverages during the **PAST 4 WEEKS**. READ THE QUESTIONS AS WRITTEN AND RECORD THE SCORE (0-4) CORRESPONDING TO THE RESPONSE IN THE SPACE PROVIDED.

1. How often do you have a drink containing alcohol? **Score**

Never (SKIP TO #9-10)	Monthly or less	2 to 4 times a month	2 to 3 times a week	4 or more times a week
⓪	①	②	③	④

2. How many drinks containing alcohol do you have on a typical day when you are drinking?

1 or 2	3 or 4	5 or 6	7, 8 or 9	10 or more
⓪	①	②	③	④

3. How often do you have six or more drinks on one occasion?

Never	Less than monthly	Monthly	Weekly	Daily or almost daily
⓪	①	②	③	④

→ **Skip to Questions 9 and 10 if total score for questions 2 and 3 = 0**

4. How often during the last 4 weeks have you found that you were not able to stop drinking once you had started?

Never	Less than monthly	Monthly	Weekly	Daily or almost daily
⓪	①	②	③	④

5. How often during the last 4 weeks have you failed to do what was normally expected from you because of drinking?

Never	Less than monthly	Monthly	Weekly	Daily or almost daily
⓪	①	②	③	④

6. How often during the last 4 weeks have you needed a first drink in the morning to get yourself going after a heavy drinking session?

Never	Less than monthly	Monthly	Weekly	Daily or almost daily
⓪	①	②	③	④

7. How often during the last 4 weeks have you had a feeling of guilt or remorse after drinking?

Never	Less than monthly	Monthly	Weekly	Daily or almost daily
⓪	①	②	③	④

8. How often during the last 4 weeks have you been unable to remember what happened the night before because you had been drinking?

Never	Less than monthly	Monthly	Weekly	Daily or almost daily
⓪	①	②	③	④

9. Have you or someone else been injured as a result of your drinking?

No	Yes, but <u>not</u> in the last year	Yes, during the last year
⓪	②	④

10. Has a relative or friend or a doctor or another health worker been concerned about your drinking or suggested you cut down?

No	Yes, but <u>not</u> in the last year	Yes, during the last year
⓪	②	④

RECORD TOTAL OF RESPONSE SCORES HERE

MODULE 6 (CONTINUED) – Alcohol Use Disorders Identification Test

RECORD TOTAL OF RESPONSE SCORES HERE _____

→ 1. IF TOTAL SCORE IS **15 OR LOWER**, SKIP TO MODULE 7.

→ 2. IF TOTAL SCORE IS **BETWEEN 16 AND 19** EVALUATE FOR FOLLOW-UP AND INDICATE BELOW.

- O FOLLOW-UP NOT NECESSARY, REASON:_____
  _____
- O STANDARD FOLLOW-UP
- O IMMEDIATE FOLLOW-UP

→ 3. IF TOTAL SCORE IS **20 OR HIGHER**, REFER FOR FURTHER EVALUATION.

- O FOLLOW-UP NOT NECESSARY, REASON:_____
  _____
- O STANDARD FOLLOW-UP
- O IMMEDIATE FOLLOW-UP

GO TO MODULE BELOW

MODULE 7 – Sleep Problems (Optional Supplemental Module)

	NO	YES
During the past month and up to today:		
1. Have you had difficulty falling or staying asleep?	O	O
2. Have you had restless or fragmented sleep?	O	O
→ IF **YES** TO **EITHER** QUESTION, CONTINUE WITH THE FOLLOWING: IF **NO** SKIP TO MODULE 8	O	O

	NO	YES
3. Has the sleep problem led to significant distress or impairment in social, occupational or other important areas of functioning?	O	O
4. Is the sleep problem related to medication, over the counter medicines, or excessive use of caffeine?	O	O
5. Is the sleep problem related to a medical condition such as back pain?	O	O
6. Is the sleep problem related to an outside factor like small children in the home, noisy neighbors, or telephone calls?	O	O
7. Do you think the sleep problem is related to feeling stressed, being upset or worried?	O	O
8. Would you like help dealing with the sleep problem?	O	O

→ ASK ANY QUESTIONS NEEDED TO CLARIFY SYMPTOM PICTURE OR DISPOSITION. ASSESS NEED FOR FURTHER EVALUATION.

EVALUATE FOR FOLLOW-UP AND INDICATE BELOW.

- O FOLLOW-UP NOT NECESSARY, REASON: _____
- O STANDARD FOLLOW-UP, REASON: _____
- O IMMEDIATE FOLLOW-UP, EXPLAIN: _____

GO TO MODULE ON THE NEXT PAGE

MODULE 8 – Other Problems

	NO	YES
ASK ANY QUESTIONS NEEDED TO CLARIFY SYMPTOM PICTURE OR DISPOSITION. ASSESS NEED FOR FURTHER EVALUATION REGARDLESS OF MEETING STRUCTURED INTERVIEW CRITERIA.		
1. Is anything bothering you that we have not already discussed? IF **YES**, PROBLEM: _____ _____	O	O
2. Are you currently in treatment for behavioral or emotional problems? If **YES**, REASON: _____ _____	O	O
3. Were you in treatment for behavioral or emotional problems while you were deployed? If **YES**, REASON: _____ _____	O	O
4. Do you want to see a counselor? If **YES**, REASON: _____ _____	O	O

IF **YES** TO **ANY** ITEM ABOVE – EVALUATE FOR FOLLOW-UP AND INDICATE BELOW.

- O FOLLOW-UP NOT NECESSARY, REASON: _____
- O STANDARD FOLLOW-UP, REASON: _____
- O IMMEDIATE FOLLOW-UP, EXPLAIN: _____

SECTION I & II TO BE COMPLETED BY INTERVIEWER

I. INTERVIEW OUTCOME STATUS

DIRECTIONS: Indicate Interview Outcome Status for EACH Module	**No Follow-up Necessary**	**Immediate Follow-up Necessary**	**Standard Follow-up**	**Already in Treatment** (Module 8.2)	**Sub-clinical Moderate Symptoms***
Module					
1 - Depression	O	O	O	O	O
2 - Suicidality	O	O	O	O	O
3 - PTSD	O	O	O	O	O
4 - Anger	O	O	O	O	O
5 - Relationship Problems	O	O	O	O	O
6 - Alcohol Problems	O	O	O	O	O
7 - Sleep Problems	O	O	O	O	O
8.1 - Other Problems	O	O	O	O	O
8.4 - See Counselor	O	O	O	O	O

* Based on Interviewer's clinical judgment that service member has a problem but does not need follow-up.

NOTES