

# Guide for Using the RPOW Health Assessment Database

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## Introduction

The goal of the Repatriated Prisoners of War (RPOW) program and the Center for Prisoner of War Studies is to evaluate the former prisoners and their experience—both in captivity and through repatriation and reintegration into society—and to apply the lessons learned to help others in the future. Thus, the program and center have two roles. The clinical role is the health evaluation of the RPOW population, and the research role is to learn from the POW experience to promote the well-being of past and future POWs.

We developed a health assessment survey as part of a descriptive study of the general health status of prisoners of the Vietnam War, nearly 25 years after their repatriation. The survey was mailed to 554 RPOWs and 114 control group<sup>1</sup> members who could be located. The resulting data were used to update the medical records of the respondents. Seventy-five percent of each group responded to the survey. The data collection process included the development of a database tool for archiving and analyzing relationships in the data. The purpose of this manual is to provide a guide for the use of the survey database. It is intended for use by clinicians at the Robert E. Mitchell Center at the Naval Operational Medical Institute, where RPOWs and control group members receive periodic checkups.

## Health status measurement

We used the Health Enrollment Assessment Review (HEAR), version 1.1, as the instrument for measuring the health status of the RPOWs and control group members. The HEAR is a self-administered questionnaire that takes 20 to 30 minutes to complete. The U.S. Air Force's Office for Prevention and Health Services Assessment (OPHSA), the Centers for Disease Control and Prevention (CDC), and the Battelle Memorial Institute first developed the HEAR for use

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1. The control group consisted of 125 naval aviators, matched to RPOWs on the basis of age, rank, and type of aircraft flown.

in TRICARE Regions 4 and 6. It is now used as the primary health assessment instrument by DoD. Beneficiaries complete it at the time of enrollment into TRICARE, and their Primary Care Managers use the instrument to assess current health status and to recommend a course of action or treatment to manage existing diseases. Our description of the HEAR borrows heavily from the Project HEAR final report [1].

The survey questions were taken from proven, validated, national health survey instruments. This process greatly enhanced validation and testing procedures and ensured data comparability with previously administered surveys.

The four functions of the questionnaire are (1) to assess preventive service needs of enrollees, (2) to predict which enrollees potentially will use high levels of medical resources or primary care manager (PCM) time, (3) to recommend the appropriate level of primary care case management based on the complexity of medical care required, and (4) to identify patients with high-risk behaviors who could benefit from counseling and health promotion activities.

## **Questionnaire contents**

This section and the next focus on areas included in the HEAR questionnaire examining the type, frequency, and delivery of clinical preventive services and patient education and counseling. Clinical preventive services consist of primary preventive measures, such as immunizations and cholesterol screenings. Patient education and counseling are aimed at reducing risk factors for disease and promoting healthier lifestyles. A copy of the questionnaire is shown in the appendix.

### **Clinical preventive services**

The selection of clinical prevention services examined in the HEAR instrument was based on the need to track TRICARE Prime enrollees to determine whether these services have been received. The areas identified that require routine preventive care include the following:

- Blood pressure

- Total blood cholesterol
- Tetanus
- Colorectal cancer
- Testicular cancer.

The survey includes each of these areas.

*Blood pressure:* The survey includes several questions on blood pressure. These questions establish whether a respondent (1) ever had his blood pressured checked, (2) currently suffers from hypertension, (3) is currently prescribed medication for hypertension, and (4) is compliant with the treatment regimen.

*Total blood cholesterol:* The survey includes three questions on blood cholesterol. The first question establishes whether a respondent has ever had his/her blood cholesterol checked, the second determines when a person was last tested, and the third ascertains whether a respondent currently suffers from high cholesterol.

*Tetanus:* In the survey, we included a single question intended to establish whether a person has been immunized in the last ten years (the recommended interval for tetanus shots).

*Testicular cancer:* One question was used to determine the time since the last testicular examination.

*Colorectal cancer:* In the HEAR survey, we included one question to determine the time since a patient's last rectal exam. This question has been used in a health risk assessment instrument, Healthier People Network HRA.

## **Patient education and counseling services**

These questions are intended to provide information to both patients and providers concerning high-risk modifiable behaviors: exercise, alcohol use, mental health, smoking, weight, and satisfaction and stress. The questions and/or related scales were selected from previously validated instruments.

Nutrition intentionally was not addressed in the survey. To determine proper nutritional habits, one would need to include numerous questions that are subject to recall bias; respondents customarily have difficulty recalling their nutritional intake. The only questions indirectly related to dietary habits were three related to age, weight, and height, which are used to compute the algorithm for Body Mass Index (BMI). Although the BMI cannot detect nutritional deficiencies, it can reveal whether a respondent suffers from obesity.

*Exercise:* Physical activity was assessed with three questions measuring frequency, intensity, and duration of:

- Recreational exercise
- Physical work required as part of the job
- Physical work required as part of a main daily activity.

These questions were taken from the National Health Interview Survey (NHIS).<sup>2</sup> They were considered to be especially applicable to a young, active-duty military population. These questions provide a broad-based definition of physical activity and measure respondents' level of physical activity performed as part of their work and/or leisure activities.

*Alcohol consumption:* Four questions attempted to examine the following characteristics associated with alcohol consumption:

1. Number of drinks, defined as equivalent volume amounts that have an ethanol content of 0.6 oz (i.e., 12 oz of beer, 5 oz of wine, and 1.5 oz of liquor)
2. Excessive alcohol consumption, defined as five or more drinks, on a given day, during the last month
3. Drinking and driving (frequency of driving when respondents felt they had too much to drink)

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2. <http://www.cdc.gov/nchs/about/major/nhis/nhisdesc.htm>



4. Feelings associated with guilt, contemplating reducing the amount of alcohol, and finding that people complain about one's alcohol consumption.

*Mental health:* Five questions were used to evaluate mental health status. These questions evaluated the two groups of mental illnesses—mood and anxiety disorders—most commonly encountered in the general population and primary care settings. The questions serve as an initial symptom screen for mental disorders and have been previously validated in the Primary Care Evaluation of Mental Disorders (PRIME-MD) study.<sup>3</sup> The items provided a standardized and brief method to assess commonly encountered mental illnesses in primary care settings. HEAR uses two items to screen for mood disorders and three questions to assess anxiety disorder. At least one positive response on either the mood or anxiety questions alerts the clinicians to potential problems.

*Smoking:* The smoking category concentrates on identifying respondents who smoke cigarettes exclusively. An algorithm developed by Prochaska [2] was used to determine patients' readiness for smoking cessation based on cigarette use. Smoking status is evaluated based on two sets of three questions. The first set ascertains smoking history and current status, while the second set assesses readiness for smoking cessation.

*Body weight:* Ideal body weight was based on the Body Mass Index, which takes into account age, height, and weight. It is considered more reliable than standard insurance company/actuarial tables because it considers a patient's age. This index was adapted from the *Clinician's Handbook of Preventive Services* [3].

*Satisfaction and stress:* High levels of stress have often been associated with higher levels of morbidity in the general population. Frequency, intensity, and duration of stress were measured with three questions adapted from the 1987 National Health Interview Survey. Three

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3. Spitzer et al., "The PRIME-MD Study: Utility of a New Procedure for Diagnosing Mental Disorders in Primary Care," *Journal of the American Medical Association*. December 14, 1994; 272 [22]: 1749-1756.

other related questions were used to evaluate the specific needs of military personnel, including satisfaction with life, potential problems with a spouse, and family separation. The first two questions (satisfaction with life in general and marriage) have been used in the Army's Fit to Win survey. The question regarding family separation was developed explicitly for this survey, based on recommendations from OPHSA personnel.

## **High resource utilization (HRU)**

Recent studies have demonstrated that a small proportion of the population account for the majority of the medical utilization. More specifically, about 20 percent of the population incurs 80 percent of the medical resources. We used algorithms developed to estimate which enrollees were likely to be high users of medical resources. The algorithms were based on discussions by OPHSA with experts in the field and a review of the literature [4 and 5].

Based on this information, the following 13 categories are used to predict which enrollees were likely to be high resource utilizers: gender, marital status, self-rated health, cardiovascular disease, drinking behavior, satisfaction with work and family, stress, mental health, absenteeism, number of prescription medications, medical resource use frequency, specific chronic conditions, and smoking status. These categories are based on sociodemographic characteristics and health status conditions.

With the information generated by the HRU algorithm in the HEAR survey, respondents are categorized into three levels—low, medium, and high users of the medical delivery system—based on their predicted level of medical resource utilization. A respondent was considered a high, medium, or low resource utilizer if he answered affirmatively to at least six, five, or four or fewer of the categories, respectively.

## **Chronic conditions**

Questions related to the presence of chronic conditions were included in the HEAR instrument both to identify conditions associ-

ated with increased medical resource utilization (bronchitis/emphysema and arthritis) and to provide primary care physicians increased information on their patients' health status. The chronic conditions included in the survey are found to be most prevalent in the general population and account for a substantial portion of hospitalizations and ambulatory care visits. The presence of chronic conditions was evaluated by asking patients to consider whether they had ever been told by a health care provider they suffered from any chronic conditions. The chronic conditions included in the survey can be divided into several categories: cardiovascular disease, cancer, mental health disorders, respiratory problems, neurological diseases, diabetes, liver and kidney diseases, and HIV/AIDS. These questions were derived either from the Healthier People Network risk assessment instrument or were developed specifically this survey.

## **Primary care level categorization**

OPHSA convened a panel to develop criteria for assessing the primary care levels (PCLs) for enrollees. Six primary care providers (from both the civilian and military sectors) discussed decision criteria and algorithms used to differentiate levels of primary care needs. These algorithms were to be used to stratify TRICARE enrollees into one of three groups based on their estimated level of primary care complexity: Level 1 - least complexity, could be provided by nurse practitioners, physician assistants, or general medical officers (GMOs); Level 2 - moderate complexity, provided by family practice and internal medicine physicians; Level 3 - greatest complexity, often requiring interactions with physician subspecialists.

Panel members received a structured questionnaire to complete before the meeting. Using a consensus panel technique, participants discussed relevant issues among themselves until a final judgment was reached. Based on recommendations from this panel, OPHSA developed a preliminary algorithm. The following eight components were used in determining the PCL: number of prescription medications, self-assessment of general health, mental health, outpatient and inpatient medical resource utilization, age, number of chronic diseases, and emergency room visits. All enrollees were classified as "least complexity" (Level 1) in each category unless responses to the HEAR

questionnaire indicated that a higher level of care may be required. For example, a response of “fair” to the question regarding self-reported health status resulted in assigning the enrollee to the “moderate complexity” level, whereas a response of “poor” resulted in assigning an enrollee to the “greatest complexity” level.

## Using the computer software

The data collected for the RPOWs and control group members were incorporated into a Microsoft® Access database (compatible with Microsoft Office 97). The database can be opened by (double) clicking on the filename, *RPOW\_SURVEY.MDB*.

Patient responses are accessed by either Name or SSN. Drop-down controls are provided for this purpose. Clicking on the down arrow on the “Name” control will bring up a scroll box. The names are alphabetically sorted (last name, first name). Click on the person’s name to show his data. Similarly, clicking on the down arrow on the SSN control will show a list of SSNs, but unsorted. Scroll through the list to locate the desired SSN. Alternatively, you could type the name or SSN of the person whose data you want to see directly into the Name or SSN box.

The data for that patient can be selected by then clicking on the name or SSN. Please note that the list includes *all* RPOWS and control group members, even those who *did not* respond to the survey. Because we have no data for nonrespondents, their datafields will be empty. Figure 1 shows a sample data screen. (The patient’s name and SSN are masked to maintain confidentiality.)

The data screen appears as a form with the responses shown in boxes labeled with the survey question number. To view the question text, click on the box to the left of the question or on the blue hyperlink labeled “View the Health Assessment Review Questionnaire.”

Included in the patient data are the results of the calculations for the patient’s *Care Level Indicators*, and *High Resource Usage Indicators*. These indicators were calculated using the algorithms referred to earlier.

We also incorporated a clinician's notepad. Clicking on the button labeled "Enter or view clinician's notes" will open a text box. Notes can be viewed or appended to a patient's record in this manner.

Figure 1. Patient Data Screen

id:  Name:  service:  rank:  ssn:

To search by SSN, enter patient's SSN.  Control  Officer  South   
 To search by Name, enter patient's name as "LastName, FirstName"  Air Crew  Seen

[View the Health Assessment Review Questionnaire](#)

**Sources of healthcare:**

Military health care (e.g., military treatment facility, Tricare, CHAMPUS)  
 Veterans Administration health care (e.g., VA hospital)  
 Civilian HMO (e.g., Kaiser, GHA...) using private insurance  
 Civilian health providers using private insurance  
 Civilian health facilities paying all costs out of pocket (no insurance)  
 Medicare  
 Medicaid  
 Other:

Patient Care Level Indicators  
 1 = Least Care  
 2 = More Care  
 3 = Most Care

General Health:   
 Mental Health:   
 Outpatient Utilization:   
 Hospital Visits:   
 Emergency Room Visits:   
 Chronic Diseases:   
 Age:   
 Current Medications:   
 Overall (Maximum of other PCL values):   
 High Resource Utilization:   
 1. Low resource utilizer  
 2. Moderate resource utilizer  
 3. High resource utilizer

Individual Answer	Not Air Crew	USA	South	RPOW	Enlisted	Not Seen	
age	50	56.277	56.148	61.055	61.157	54.98	57.65
A2	1	1	1	1	1	1	1
A3	2	2.3158	2.2553	2.2122	2.2139	2.3721	2.3333
A4	7	6.3864	6.3462	6.8552	6.8254	6.3191	6.7143
A5	2	2.5676	2.7021	2.2544	2.2421	2.7143	2.5243
A7	240	198.95	196.41	191.34	190.82	196.87	192.39
A8	5	2.8936	2.8889	3.3669	3.3559	2.8571	3.2051
B1	0.5	0.5532	0.5463	0.5893	0.5799	0.5612	0.6453
B2	1	0.4468	0.5	0.3474	0.339	0.449	0.3504
B3	0	0.3478	0.4151	0.3094	0.301	0.3673	0.2821
B4	1	0.383	0.4074	0.3019	0.2906	0.3469	0.2735
B5	1	0.3191	0.3333	0.2695	0.2567	0.2857	0.2393
B6	0.5	0.5851	0.6204	0.5016	0.4782	0.5204	0.4487
C1	1	0.9778	0.9808	0.9869	0.9878	1	0.9826
C2	0.5	0.8953	0.9796	0.8571	0.8426	1.0761	1.0561
C3	0	0.6304	0.6226	0.623	0.6373	0.6667	0.5877
C4	0.5	1.2283	1.3235	1.0729	1.0578	1.4271	1.3053
C5	1	0.7045	0.74	0.7243	0.7315	0.7556	0.6636
D1	1.5	1.8261	1.7830	2.1307	2.1813	1.8333	1.8448
D2	2	3	2.963	2.8961	2.8547	2.8776	2.6410
D3	3	2.1522	2.1321	2.1078	2.1168	2.2292	2.0776
F1	0.5	0.9893	1.0904	0.9765	0.9826	1.0765	1.2841
G1	1	0.9149	0.8519	0.776	0.7676	0.898	0.7863
G2	0.5	0.4617	0.3383	0.1555	0.1406	0.4127	0.2742
G3	5	10.862	6.9537	2.8929	2.5823	9.6020	6.2863
G4	0	0.2766	0.2037	0.0812	0.0799	0.2857	0.1538

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## **Appendix: The Health Assessment Review**

The Health Assessment Review form used in the data collection is shown here.

# Health Assessment Review



CAPT Robert E. Mitchell, MC, USN (Ret.)

## **The Robert E. Mitchell Center Naval Operational Medicine Institute**

This questionnaire was developed by the Office for Prevention and Health Services Assessment (OPHSA), the National Center for Environmental Health (NCEH), and the Battelle Memorial Institute for TRICARE Region VI and Region IV through a Memorandum of Agreement between Armstrong Laboratory Human Services Command, U.S. Air Force Material Command, and the Centers for Disease Control and Prevention (CDC). It has been modified by the Center for Naval Analyses for use by the Robert E. Mitchell Center, with the consent of OPHSA.



# Health Assessment Review

## INSTRUCTIONS

### General Instructions:

Please use a No. 2 pencil or darker to complete the survey. Make dark black marks that fill the response circles completely. If you make a mistake, erase the incorrect mark and fill in the correct circle.

Example:

Correct

Incorrect



Here is an example of how someone born on June 23, 1971, would answer question A1.

**A1. DATE OF BIRTH:**  
(YEAR / MONTH / DAY)

19	7	1	/	0	6	/	2	3
	0	0		●	0		0	0
	1	●		1	1		1	1
	2	2		2	2		●	2
	3	3		3	3		3	●
	4	4		4	4		4	4
	5	5		5	5		5	5
	6	6		●	6		6	6
	●	7		7	7		7	7
	8	8		8	8		8	8
	9	9		9	9		9	9

Here is an example of how someone 6 feet 2 inches tall would answer question A6.

**A6. Without shoes, about how tall are you?**

3	6	feet	/	0	2	inches
3	3			0	●	0
4	4			1	1	1
5	5			2	2	●
6	●			3	3	3
7	7			4	4	4
				5	5	5
				6	6	6
				7	7	7
				8	8	8
				9	9	9

## Health Assessment Review INSTRUCTIONS *(Continued)*

Please **answer all appropriate questions** and complete the entire survey, skipping questions only where the survey says to do so. For example, males should not answer the female questions, and non-smokers should not answer the smoking questions.

Example: In the illustration below, we have answered "not at all" to question G2. Therefore, we will skip the rest of the G section questions and go directly to question H1.

**G2.** Do you **NOW** smoke cigarettes every day, some days, or not at all?

Every day     Some days     Not at all (go to H1)

**Do not fold or staple** the survey pages. Please complete the survey and **return it by mail within 5 days**, using the pre-addressed envelope provided.

### **Privacy Act Statement:**

AUTHORITY: 10 U.S.C., 8013

PURPOSE: The Health Assessment Review was designed to collect personal information from military health services system beneficiaries.

ROUTINE USES: This information is used primarily by health-care personnel to plan health-care delivery needs. Information used in this survey will be sent only to the Naval Operational Medical Institute and kept in your medical record. Other results from this survey will be provided only in combination with results from others and cannot be used to identify you.

DISCLOSURE: Providing complete information in this survey is highly desirable, but not mandatory. Completion of the survey information will help assess the medical needs of repatriated POWs and determine the resources needed to provide for your future health care.

# Health Assessment Review

*Please provide the following personal information so we can update our records:*

<b>Street address</b>	
<b>City</b>	
<b>State</b>	
<b>ZIP code</b>	

**What sources of health care do you use? Please check all that apply.**

- Military health care (e.g., military treatment facility, Tricare, CHAMPUS)
- Veterans Administration health care (e.g., VA hospital)
- Civilian HMO (e.g., Kaiser, GHA...) using private insurance
- Civilian health providers using private insurance
- Civilian health facilities paying all costs out of pocket (no insurance)
- Medicare
- Medicaid
- Other (please specify) \_\_\_\_\_

# HEALTH ASSESSMENT REVIEW QUESTIONNAIRE

**A1. DATE OF BIRTH:**  
(YEAR /MONTH /DAY)  
19   /   /

0

1

2

3

4

5

6

7

8

9

**A2. GENDER:**

Male

Female

**A3. MARITAL STATUS:**

Never married

Married

Separated

Divorced

Widowed

**A4. Racial/Ethnic Background:**

Amer. Indian or Alaska Native

Asian/Oriental

Black, Hispanic

Black, Non-Hispanic

Pacific Islander

White, Hispanic

White, Non-Hispanic

Other

**A5. Are you:**

Active duty service member

Retired service member

OR Family Member of:

Active duty service member

Retired/deceased service member

OR

Other

**A6. About how tall are you, without shoes?**

feet       inches

3       0

4       1

5       2

6       3

7       4

                  5

                  6

                  7

                  8

                  9

**A7. About how much do you weigh, without shoes?**

pounds

0

1

2

3

4

5

6

7

8

9

**B5. Are you now taking any medicine prescribed by a doctor for your hypertension or high blood pressure?**

Yes  No (*go to C1*)  Don't know (*go to C1*)

**B6. How regularly do you take your high blood pressure medicine?**

Always                       Less than half the time

Most of the time           Never

About half the time

**C1. Blood cholesterol is a fatty substance found in blood. Have you ever had your blood cholesterol checked?**

Yes (*go to C2*)  No (*go to C4*)  Don't know (*go to C4*)

**C2. About how long has it been since you last had your blood cholesterol checked?**

Less than 1 year ago       5 years ago

1-2 years ago               More than 5 years ago

3-4 years ago  Don't know

**C3. Have you ever been told by a doctor or other health professional that your blood cholesterol is high?**

Yes  No  Don't know

**C4. About how long has it been since you had a rectal exam?**

Less than a year ago       3 or more years ago

1 year ago                   Never

2 years ago                   Don't know

**C5. During the past ten years, have you had a tetanus shot?**

Yes  No  Don't know

**D1. In an average week, how many times do you engage in physical activity (exercise or work which lasts at least 20 minutes without stopping and which is hard enough to make you breathe heavier and your heart beat faster)?**

Less than 1 time per week       At least 3 times per week

1-2 times per week

**D2. How much hard physical work is required on your job? Would you say...**

A great deal                   None

A moderate amount           Not currently working

A little

**D3. How much hard physical work is required in your main daily activity (household or other non-job activities)? Would you say...**

A great deal  A moderate amount  A little  None

**General Health**

**A8. Would you say that your health in general is...**

Excellent       Fair

Very good       Poor

Good

**B1. About how long has it been since you last had your blood pressure taken by a doctor, nurse, or other health professional?**

Less than 1 year ago       3 or more years ago

1 year ago                   Never

2 years ago                   Don't know

**B2. Have you ever been told by a doctor or other health professional that you had hypertension, sometimes called high blood pressure?**

Yes (*go to B3*)               Only during pregnancy (*go to C1*)

No (*go to C1*)

**B3. Have you been told two or more different times that you had hypertension or high blood pressure?**

Yes  No  Don't know

**B4. Has any medicine ever been prescribed by a doctor for your hypertension or high blood pressure?**

Yes  No (*go to C1*)  Don't know (*go to C1*)

# HEALTH ASSESSMENT REVIEW QUESTIONNAIRE

## E. Women's Health (men go to F1)

E1. About how long has it been since you had a breast examination by a doctor or other health professional?

- Less than 1 year ago     3 or more years ago  
 1 year ago                 Never  
 2 years ago                 Don't know

E2. A mammogram is an X-ray of each breast to look for breast cancer. Have you ever had a mammogram?

- Yes  No (*go to E4*)  Don't know (*go to E4*)

E3. How long has it been since you had your last mammogram?

- Less than 1 year ago     3 or more years ago  
 1 year ago                 Don't know  
 2 years ago

E4. A Pap smear is a test for cancer of the cervix. Have you ever had a Pap test (or Pap smear)?

- Yes  No (*go to G1*)  Don't know (*go to G1*)

E5. How long has it been since you had your last Pap smear?

- Less than 1 year ago     3 or more years ago  
 1 year ago                 Don't know  
 2 years ago

## F. Men's Health (women go to G1)

F1. How long has it been since you had a testicular examination by a doctor or other health care professional?

- Less than 1 year ago     3 or more years ago  
 1 year ago                 Never  
 2 years ago                 Don't know

## G. Smoking

G1. Have you smoked at least 100 cigarettes in your entire life?  
(Note: 1 pack = 20 cigarettes)

- Yes                         No (*go to H1*)

G2. Do you NOW smoke cigarettes every day, some days, or not at all?

- Every day                 Some days  Not at all (*go to H1*)

G3. On the average, about how many cigarettes a day do you now smoke?

- Less than 1 per day     21-40 per day  
 1-10 per day             41 or more per day  
 11-20 per day  Don't know

G4. Are you seriously intending to quit smoking in the next 6 months?

- Yes                         No

G5. Are you planning to quit smoking in the next month?

- Yes                         No

G6. Have you tried to quit smoking in the past 12 months?

- Yes                         No

## H. Use of Alcohol

H1. During the past month, have you had at least one drink of any alcoholic beverage, such as beer, wine, wine cooler, or liquor?

- Yes                         No (*go to H1*)  Don't know

H2. In the past 2 weeks, on how many days did you drink any alcoholic beverages, such as beer, wine, or liquor?

- None (*go to H4*)             5-6 days  
 1-2 days                     7 or more days  
 3-4 days                     Don't know

H3. A drink is 1 can or bottle of beer, 1 glass of wine, 1 can or bottle of wine cooler, 1 cocktail, or 1 shot of liquor. During the past 2 weeks, on the days when you drank, how many drinks did you drink on average?

- 1-2 drinks                 7 or more drinks  
 3-4 drinks                 Don't know  
 5-6 drinks

H4. During the past month, how many times have you driven when you've had perhaps too much to drink?

- None                         7 or more times  
 1-2 times                 Don't drive  
 3-4 times                 Don't know  
 5-6 times

H5. During the past month, have you thought you should cut down on your drinking of alcohol?

- Yes                         No

H6. During the past month, has anyone complained about your drinking?

- Yes                         No

H7. During the past month, have you felt guilty or upset about your drinking?

- Yes                         No

H8. During the past month, was there at least one day on which you had five or more drinks of beer, wine, or liquor?

- Yes                         No

## I. Stress

I1. How often do you feel that your present work or lifestyle is putting you under too much stress?

- Often  Sometimes  Seldom  Never

I2. During the past 2 weeks, would you say that you experienced...

- A lot of stress  
 A moderate amount of stress  
 Relatively little stress  
 Almost no stress at all

I3. In the past year, how much effect has stress had on your health?

- A lot  Some  Hardly any or none

## J. Social Relations

J1. In general, how satisfied are you with your life (e.g., work situation, social activity, accomplishing what you set out to do)?

- Not satisfied             Mostly satisfied  
 Somewhat satisfied     Totally satisfied

J2. How often do you have any serious problems dealing with your husband or wife, parents, friends, or with your children?

- Often  Sometimes  Seldom  Never

J3. During the past year, have you been separated from your family for a block of at least 30 days?

- Yes  No

# HEALTH ASSESSMENT REVIEW QUESTIONNAIRE

**In the past month, have you often been bothered by...**

- K1. ... little interest or pleasure in doing things?  
 Yes                       No
- K2. ... feeling down, depressed, or hopeless?  
 Yes                       No
- K3. ... "nerves" or feeling anxious or on edge?  
 Yes                       No
- K4. ... worrying about a lot of different things?  
 Yes                       No
- K5. During the past month, have you had an anxiety attack (suddenly feeling fear or panic)?  
 Yes                       No
- K6. During the past 12 months, have you seen a mental health professional?  
 Yes                       No                       Don't know

**L. Recent Illnesses**

- L1. During the past two weeks, how many days did you stay in bed for more than half of the day because of illness or injury?  
 None                       5-6 days  
 1-2 days                   7 or more days  
 3-4 days                   Don't know
- L2. During the past 2 weeks, how many days did you miss more than half of the day from your job or business because of illness or injury?  
 None                       5-6 days  
 1-2 days                   7 or more days  
 3-4 days                   Don't know
- L3. Do you have difficulty walking, such as hobbling, shuffling, or not being able to walk a straight line?  
 Yes                       No

**M. Medication**

- M1. How many different prescription medications are you currently taking?  
 None                       6 or more medications  
 1-2 medications       Don't know  
 3-5 medications

M2 & M3. Excluding visits for pregnancy, medication refills, and dental care, how many times did you see a doctor, nurse, or other health care professional for an office visit or clinic appointment? (Include both civilian and military health care professionals. Only include visits for yourself.)

- | during the PAST MONTH                  | during the PAST 12 MONTHS               |
|--|---|
| <input type="radio"/> None             | <input type="radio"/> None              |
| <input type="radio"/> 1-2 visits       | <input type="radio"/> 1-5 visits        |
| <input type="radio"/> 3-4 visits       | <input type="radio"/> 6-10 visits       |
| <input type="radio"/> 5-6 visits       | <input type="radio"/> 11-15 visits      |
| <input type="radio"/> 7 or more visits | <input type="radio"/> 16-20 visits      |
| <input type="radio"/> Don't know       | <input type="radio"/> 21 or more visits |
|  | <input type="radio"/> Don't know        |

- M4. During the past 12 months, how many times have you gone to an emergency room or urgent care clinic?  
 None                       5-6 visits  
 1-2 visits                   7 or more visits  
 3-4 visits                   Don't know
- M5. During the past 12 months, have you spent one or more nights in the hospital? (Do not include hospitalizations for deliveries.)  
 Yes                       No (**go to N1**)
- M6. During the past 12 months, how many nights have you spent in the hospital?  
 1-2 nights                   7 or more nights  
 3-4 nights                   Don't know  
 5-6 nights
- M7. During the past 12 months, on how many different occasions have you entered the hospital and stayed for at least one night?  
 1 time  
 2-3 times  
 4 or more times  
 Don't know

**Have you ever been told by a health-care provider that you have...**

- N1. ... diabetes or sugar diabetes?                   Yes    No    Don't know
- N2. ... had a stroke?                                       Yes    No    Don't know
- N3. ... had a heart attack?                               Yes    No    Don't know
- N4. ... emphysema/chronic bronchitis?                                       Yes    No    Don't know
- N5. ... arthritis?     Yes    No    Don't know
- N6. ... Parkinson's disease or other neurologic disease?                               Yes    No    Don't know
- N7. ... depression?     Yes    No    Don't know
- N8. ... HIV or AIDS?                                         Yes    No    Don't know
- N9. ... anxiety or personality disorder?                                       Yes    No    Don't know
- N10. ... cancer?     Yes    No    Don't know
- N11. ... heart disease or angina?                               Yes    No    Don't know
- N12. ... liver disease?                                         Yes    No    Don't know
- N13. ... kidney disease?                                       Yes    No    Don't know
- N14. ... a stomach ulcer?                                       Yes    No    Don't know
- N15. ... asthma?     Yes    No    Don't know
- N16. During the past 12 months, have you seen a health care provider on 2 or more occasions for a bone, joint, back, or muscle problem?  
 Yes  
 No
- N17. Do you have a dependent family member less than 18 years old with a serious medical condition?  
 Yes  
 No
- N18. Do you have a close family member (parent, brother/sister, or child) who has or had angina, a heart attack, or other heart disease?  
 Yes  
 No  
 Don't know

## References

- [1] M. Murray and M. Halpern. *Project HEAR: Health Enrollment Assessment Review, Phase Two: Development of HEAR Instrument and Result of Field Test*. MEDTAP International, 1996
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- [3] U.S. Department of Health and Human Services. *Clinician's Handbook of Preventive Services: Put Prevention Into Practice*. Washington, DC: U.S. Government Printing Office, 1994
- [4] D. K. Freeborn et al. "Consistently High Users of Medical Care Among the Elderly." *Medical Care* 1990; 28(6): 527-40
- [5] L. T. Yen, D. W. Edington, and P. Witting. "Corporate Medical Claim Cost Distributions and Factors Associated With High-Cost Status." *Journal of Medicine* 1994 ; 36(5): 505-515

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