

F-09. How many years, altogether, did you work as a (JOB TITLE IN F-07)?

ENTER NUMBER OF YEARS. ENTER "888" IF LESS THAN ONE YEAR.

\_\_\_\_\_ → SKIP TO F-19. (EDIT (IF NOT 888): # ≥ 1  
AND ≤ CURRENT AGE.)

F-10. Are you now disabled, on strike, laid off, looking for work, or something else? (IF MULTIPLE RESPONSE, CODE LOWEST NUMBER.)

1 = DISABLED                      4 = LOOKING FOR WORK  
2 = ON STRIKE                      5 = SOMETHING ELSE  
3 = LAID OFF

F-11. When did you last work at a full-time civilian job?

ENTER MONTH OF TERMINATION (RANGE 1-12).  
IF "NEVER" ENTER "88" AND SKIP TO F-19.

\_\_\_\_\_  
ENTER LAST 2 DIGITS OF YEAR OF TERMINATION.

(EDIT 1.)

F-12. What kind of job did you last have? What was your job title?

RECORD JOB TITLE (LIMIT OF 40 CHARACTERS).

F-13. What kind of business or industry was that in--what did they make or do at the place where you worked?

RECORD TYPE OF BUSINESS OR INDUSTRY (LIMIT OF 40 CHARACTERS).

F-14. Was that the job you have held for the longest period of time?

1 = YES  
2 = NO → SKIP TO F-16.

F-15. How many years, altogether, did you work as a (JOB TITLE IN F-12)?

ENTER NUMBER OF YEARS. ENTER "888" IF LESS THAN ONE YEAR.

\_\_\_\_\_ → SKIP TO F-19. (EDIT (IF NOT 888): # ≥ 1  
AND ≤ CURRENT AGE.)

F-16. What kind of job have you held the longest? What was your job title?

RECORD JOB TITLE (LIMIT OF 40 CHARACTERS).

- F-17. What kind of business or industry was that in--what did they make or do at the place where you worked?
- RECORD TYPE OF BUSINESS OR INDUSTRY (LIMIT OF 40 CHARACTERS).
- \_\_\_\_\_
- F-18. How many years, altogether, did you work as a (JOB TITLE IN F-16)?
- ENTER NUMBER OF YEARS. ENTER "888" IF LESS THAN ONE YEAR.
- \_\_\_\_\_ (EDIT (IF NOT 888): #  $\geq$  1 AND  $\leq$  CURRENT AGE.)
- \* F-19. About how many months, altogether, have you been unemployed over the past 3 years?
- ENTER THE NUMBER OF MONTHS (RANGE 1-36).  
 ENTIRE PERIOD = 36; LESS THAN 1 MONTH = 88  
 IF NOT UNEMPLOYED AT ALL, ENTER 77.
- \_\_\_\_\_
- \* F-20A. The next few questions are about specific jobs you may have had either full-time or part-time.
- Have you ever worked in farming or ranching?
- 1 = YES  
 2 = NO → SKIP TO F-21A.
- F-20B. In what year did you first start working in farming or ranching?
- ENTER LAST 2 DIGITS OF START YEAR.
- \_\_\_\_\_ (EDIT 1.)
- F-20C. Altogether, how many months or years did you work in farming or ranching?
- ENTER NUMBER OF MONTHS IF LESS THAN ONE FULL YEAR. IF MORE THAN ONE YEAR, ENTER NUMBER OF YEARS, ROUNDED TO NEAREST WHOLE YEAR. IF LESS THAN ONE MONTH, ENTER "1".
- \_\_\_\_\_ (RANGE = 1-11 MONTHS OR  
 # YEARS  $\geq$  1 AND  $\leq$  CURRENT AGE.)
- ENTER APPLICABLE UNIT:
- 1 = MONTHS  
 2 = YEARS
- \* F-21A. Have you ever worked in forestry or logging?
- 1 = YES  
 2 = NO → SKIP TO F-22A.

- F-21B. In what year did you first start working in forestry or logging?  
ENTER LAST 2 DIGITS OF START YEAR.  
\_\_\_\_\_  
(EDIT 1.)
- F-21C. Altogether, how many months or years did you work in forestry or logging?  
ENTER NUMBER OF MONTHS IF LESS THAN ONE FULL YEAR. IF MORE THAN ONE YEAR, ENTER NUMBER OF YEARS, ROUNDED TO NEAREST WHOLE YEAR. IF LESS THAN ONE MONTH, ENTER "1".  
\_\_\_\_\_  
(RANGE = 1-11 MONTHS OR  
# YEARS  $\geq$  1 AND  $\leq$  CURRENT AGE.)  
ENTER APPLICABLE UNIT:  
1 = MONTHS  
2 = YEARS
- \* F-22A. Have you ever worked in highway, railroad, or utility right-of-way maintenance?  
1 = YES  
2 = NO → SKIP TO F-23A.
- F-22B. In what year did you first start doing that type of work?  
ENTER LAST 2 DIGITS OF START YEAR.  
\_\_\_\_\_  
(EDIT 1.)
- F-22C. Altogether, how many months or years did you do that type of work?  
ENTER NUMBER OF MONTHS IF LESS THAN ONE FULL YEAR. IF MORE THAN ONE YEAR, ENTER NUMBER OF YEARS, ROUNDED TO NEAREST WHOLE YEAR. IF LESS THAN ONE MONTH, ENTER "1".  
\_\_\_\_\_  
(RANGE = 1-11 MONTHS OR  
# YEARS  $\geq$  1 AND  $\leq$  CURRENT AGE.)  
ENTER APPLICABLE UNIT:  
1 = MONTHS  
2 = YEARS
- \* F-23A. Have you ever worked in landscaping, lawn care, or grounds maintenance?  
1 = YES  
2 = NO → SKIP TO F-24A.
- F-23B. In what year did you first start doing this type of work?  
ENTER LAST 2 DIGITS OF START YEAR.  
\_\_\_\_\_  
(EDIT 1.)

F-23C. Altogether, how many months or years did you do that type of work?

ENTER NUMBER OF MONTHS IF LESS THAN ONE FULL YEAR. IF MORE THAN ONE YEAR, ENTER NUMBER OF YEARS, ROUNDED TO NEAREST WHOLE YEAR. IF LESS THAN ONE MONTH, ENTER "1".

\_\_\_\_\_ (RANGE = 1-11 MONTHS OR  
# YEARS  $\geq$  1 AND  $\leq$  CURRENT AGE.)

ENTER APPLICABLE UNIT:

1 = MONTHS  
2 = YEARS

\* F-24A. Have you ever worked in a saw mill, planing mill, or pulp mill?

1 = YES  
2 = NO → SKIP TO F-25A.

F-24B. When did you first start working in a saw mill, planing mill, or pulp mill?

ENTER LAST 2 DIGITS OF START YEAR.

\_\_\_\_\_ (EDIT 1.)

F-24C. Altogether, how many months or years did you do that type of work?

ENTER NUMBER OF MONTHS IF LESS THAN ONE FULL YEAR. IF MORE THAN ONE YEAR, ENTER NUMBER OF YEARS, ROUNDED TO NEAREST WHOLE YEAR. IF LESS THAN ONE MONTH, ENTER "1".

\_\_\_\_\_ (RANGE = 1-11 MONTHS OR  
# YEARS  $\geq$  1 AND  $\leq$  CURRENT AGE.)

ENTER APPLICABLE UNIT:

1 = MONTHS  
2 = YEARS

\* F-25A. Have you ever worked at an incinerator?

1 = YES  
2 = NO → SKIP TO F-26A.

F-25B. When did you first start working at an incinerator?

ENTER LAST 2 DIGITS OF START YEAR.

\_\_\_\_\_ (EDIT 1.)

F-25C. Altogether, how many months or years did you work at an incinerator?

ENTER NUMBER OF MONTHS IF LESS THAN ONE FULL YEAR IF MORE THAN ONE YEAR, ENTER NUMBER OF YEARS, ROUNDED TO NEAREST WHOLE YEAR. IF LESS THAN ONE MONTH, ENTER "1".

\_\_\_\_\_ (RANGE = 1-11 MONTHS OR  
# YEARS  $\geq$  1 AND  $\leq$  CURRENT AGE.)

ENTER APPLICABLE UNIT:

1 = MONTHS  
2 = YEARS

\* F-26A. Have you ever worked in exterminating or pest control?

1 = YES  
2 = NO → SKIP TO F-27.

F-26B. When did you first start working in exterminating or pest control?

ENTER LAST 2 DIGITS OF START YEAR.

\_\_\_\_\_ (EDIT 1.)

F-26C. Altogether, how many months or years did you do that type of work?

ENTER NUMBER OF MONTHS IF LESS THAN ONE FULL YEAR IF MORE THAN ONE YEAR, ENTER NUMBER OF YEARS, ROUNDED TO NEAREST WHOLE YEAR. IF LESS THAN ONE MONTH, ENTER "1".

\_\_\_\_\_ (RANGE = 1-11 MONTHS OR  
# YEARS  $\geq$  1 AND  $\leq$  CURRENT AGE.)

ENTER APPLICABLE UNIT:

1 = MONTHS  
2 = YEARS

\* F-27. Did you ever have a job where chemicals such as coal tar products, oils, or solvents got on your skin or clothing regularly?

1 = YES  
2 = NO

\* F-28A. Have you ever lived on a farm or ranch?

1 = YES  
2 = NO → SKIP TO SECTION G.

F-28B. In what year did you first live on a farm or ranch?

ENTER LAST 2 DIGITS OF START YEAR.

\_\_\_\_\_ (EDIT 1.)

F-28C. Altogether, how many months or years have you lived on a farm or ranch?

ENTER NUMBER OF MONTHS IF LESS THAN ONE FULL YEAR. IF MORE THAN ONE YEAR, ENTER NUMBER OF YEARS, ROUNDED TO NEAREST WHOLE YEAR. IF LESS THAN ONE MONTH, ENTER "1".

\_\_\_\_\_ (RANGE = 1-11 MONTHS OR  
# YEARS  $\geq$  1 AND  $\leq$  CURRENT AGE.)

ENTER APPLICABLE UNIT:

1 = MONTHS  
2 = YEARS

G. MEDICAL CARE IN ARMY

- \* G-01A. Now I would like to ask you about medical care you received in the Army. Were you a patient in a hospital overnight or longer while you were in the Army?

1 = YES  
2 = NO → SKIP TO G-07A.

ARMY HOSPITAL STAY 1

---

- G-02A. What was the main condition for which you were admitted the first time you were hospitalized while you were in the Army? What did the doctor say the problem was?

(PROBE: What part of the body was affected?)  
(PROBE: What kind of (KEYWORD) was it?)

ENTER THE CONDITION NAME (LIMIT OF 40 CHARACTERS).

---

- G-03A. Did this hospitalization happen during Basic Training?

1 = YES → SKIP TO G-05A.  
2 = NO

- G-04A. Did it happen during or after a foreign tour of duty?

1 = YES  
2 = NO

- G-05A. Were you hospitalized overnight or longer for this same condition any other time while you were in the Army?

1 = YES  
2 = NO → SKIP TO G-01B.

- G-06A. Not counting the hospitalization we just talked about, how many other times were you hospitalized for this same condition while you were in the Army?

ENTER NUMBER OF TIMES.  
\_\_\_\_\_ (RANGE = 1-20.)

---

- G-01B. While you were in the Army, were you hospitalized overnight or longer for any other health problem or condition besides the one you just told me about?

1 = YES  
2 = NO → SKIP TO G-07A.

ARMY HOSPITAL STAY 2

---

G-02B. What was the main condition for which you were next admitted to the hospital while you were in the Army? What did the doctor say the problem was?

(PROBE: What part of the body was affected?)

(PROBE: What kind of (KEYWORD) was it?)

ENTER THE CONDITION NAME (LIMIT OF 40 CHARACTERS).

---

G-03B. Did this hospitalization happen during Basic Training?

1 = YES → SKIP TO G-05B.

2 = NO

G-04B. Did it happen during or after a foreign tour of duty?

1 = YES

2 = NO

G-05B. Were you hospitalized overnight or longer for this same condition any other time while you were in the Army?

1 = YES

2 = NO → SKIP TO G-01C.

G-06B. Not counting the hospitalization we just talked about, how many other times were you hospitalized for this same condition while you were in the Army?

ENTER NUMBER OF TIMES.

\_\_\_\_\_ (RANGE = 1-20.)

---

G01C. While you were in the Army, were you hospitalized overnight or longer for any other health problem or condition besides the ones you've already told me about?

1 = YES

2 = NO → SKIP TO G-07A.

ARMY HOSPITAL STAY 3

---

G-02C. What was the main condition for which you were next admitted to the hospital while you were in the Army? What did the doctor say the problem was?

(PROBE: What part of the body was affected?)

(PROBE: What kind of (KEYWORD) was it?)

ENTER THE CONDITION NAME (LIMIT OF 40 CHARACTERS).

---

G-03C. Did this hospitalization happen during Basic Training?

1 = YES → SKIP TO G-05C.

2 = NO

G-04C. Did it happen during or after a foreign tour of duty?

1 = YES

2 = NO

G-05C. Were you hospitalized overnight or longer for this same condition any other time while you were in the Army?

1 = YES

2 = NO → SKIP TO G-01D.

G-06C. Not counting the hospitalization we just talked about, how many other times were you hospitalized for this same condition while you were in the Army?

ENTER NUMBER OF TIMES.

\_\_\_\_\_ (RANGE = 1-20.)

---

G-01D. While you were in the Army, were you hospitalized overnight or longer for any other health problem or condition besides the ones you've already told me about?

1 = YES

2 = NO → SKIP TO G-07A.

ARMY HOSPITAL STAY 4

---

G-02D. What was the main condition for which you were next admitted to the hospital while you were in the Army? (What did the doctor say the problem was?)

(PROBE: What part of the body was affected?)

(PROBE: What kind of (KEYWORD) was it?)

ENTER THE CONDITION NAME (LIMIT OF 40 CHARACTERS).

---

G-03D. Did this hospitalization happen during Basic Training?

1 = YES → SKIP TO G-05D.

2 = NO

G-04D. Did it happen during or after a foreign tour of duty?

1 = YES

2 = NO

G-05D. Were you hospitalized overnight or longer for this same condition any other time while you were in the Army?

1 = YES

2 = NO → SKIP TO G-01E.

G-06D. Not counting the hospitalization we just talked about, how many other times were you hospitalized for this same condition while you were in the Army?

ENTER NUMBER OF TIMES.

\_\_\_\_\_ (RANGE = 1-20.)

---

G-01E. While you were in the Army, were you hospitalized overnight or longer for any other health problem or condition besides the ones you've already told me about?

1 = YES

2 = NO → SKIP TO G-07A.

ARMY HOSPITAL STAY 5

---

G-02E. What was the main condition for which you were next admitted to the hospital while you were in the Army? (What did the doctor say the problem was?)

(PROBE: What part of the body was affected?)

(PROBE: What kind of (KEYWORD) was it?)

ENTER THE CONDITION NAME (LIMIT OF 40 CHARACTERS).

---

G-03E. Did this hospitalization happen during Basic Training?

1 = YES → SKIP TO G-05E.

2 = NO

G-04E. Did it happen during or after a foreign tour of duty?

1 = YES

2 = NO

G-05E. Were you hospitalized overnight or longer for this same condition any other time while you were in the Army?

1 = YES

2 = NO → SKIP TO G-01F.

G-06E. Not counting the hospitalization we just talked about, how many other times were you hospitalized for this same condition while you were in the Army?

ENTER NUMBER OF TIMES.

\_\_\_\_\_ (RANGE = 1-20.)

---

G-01F. While you were in the Army, were you hospitalized overnight or longer for any other health problem or condition besides the ones you've already told me about?

1 = YES

2 = NO → SKIP TO G-07A.

ARMY HOSPITAL STAY 6

---

G-02F. What was the main condition for which you were next admitted to the hospital while you were in the Army? (What did the doctor say the problem was?)

(PROBE: What part of the body was affected?)

(PROBE: What kind of (KEYWORD) was it?)

ENTER THE CONDITION NAME (LIMIT OF 40 CHARACTERS).

---

G-03F. Did this hospitalization happen during Basic Training?

1 = YES → SKIP TO G-05F.

2 = NO

G-04F. Did it happen during or after a foreign tour of duty?

1 = YES

2 = NO

G-05F. Were you hospitalized overnight or longer for this same condition any other time while you were in the Army?

1 = YES

2 = NO → SKIP TO G-07A.

G-06F. Not counting the hospitalization we just talked about, how many other times were you hospitalized for this same condition while you were in the Army?

ENTER NUMBER OF TIMES.

\_\_\_\_\_ (RANGE = 1-20.)

---

\* G-07A. While you were in the Army, did you have any health problems which caused you to see a doctor or other medical person? Please do not include dental problems (or the problems you just mentioned for which you were hospitalized).

1 = YES

2 = NO → SKIP TO SECTION H.

HEALTH PROBLEM 1

---

G-08A. What health problem caused you to see a doctor or other medical person? What did the doctor say the problem was?

(PROBE: What part of the body was affected?)

(PROBE: What kind of (KEYWORD) was it?)

ENTER THE CONDITION NAME (LIMIT OF 40 CHARACTERS).

---

G-07B. Did you have any other health problem in the Army that caused you to see a doctor but for which you were not hospitalized?

1 = YES  
2 = NO → SKIP TO SECTION H.

HEALTH PROBLEM 2

---

G-08B. What other health problem caused you to see a doctor or other medical person? (What did the doctor say the problem was?)

(PROBE: What part of the body was affected?)  
(PROBE: What kind of (KEYWORD) was it?)

ENTER THE CONDITION NAME (LIMIT OF 40 CHARACTERS).

---

G-07C. Did you have any other health problem in the Army that caused you to see a doctor but for which you were not hospitalized?

1 = YES  
2 = NO → SKIP TO SECTION H.

HEALTH PROBLEM 3

---

G-08C. What other health problem caused you to see a doctor or other medical person? (What did the doctor say the problem was?)

(PROBE: What part of the body was affected?)  
(PROBE: What kind of (KEYWORD) was it?)

ENTER THE CONDITION NAME (LIMIT OF 40 CHARACTERS).

---

G-07D. Did you have any other health problem in the Army that caused you to see a doctor but for which you were not hospitalized?

1 = YES  
2 = NO → SKIP TO SECTION H.

HEALTH PROBLEM 4

---

G-08D. What other health problem caused you to see a doctor or other medical person? (What did the doctor say the problem was?)

(PROBE: What part of the body was affected?)  
(PROBE: What kind of (KEYWORD) was it?)

ENTER THE CONDITION NAME (LIMIT OF 40 CHARACTERS).

---

G-07E. Did you have any other health problem in the Army that caused you to see a doctor but for which you were not hospitalized?

1 = YES

2 = NO → SKIP TO SECTION H.

HEALTH PROBLEM 5

---

G-08E. What other health problem caused you to see a doctor or other medical person? (What did the doctor say the problem was?)

(PROBE: What part of the body was affected?)

(PROBE: What kind of (KEYWORD) was it?)

ENTER THE CONDITION NAME (LIMIT OF 40 CHARACTERS).

---

NOTE: THIS SECTION IS ASKED ONLY OF VETERANS WITH VIETNAM TOURS OF DUTY.

SECTION H. VIETNAM EXPERIENCE

- \* H-01. The next questions are about your tour of duty in Vietnam. After you entered the Army, did you volunteer to serve in Vietnam?
- 1 = YES  
2 = NO  
88 = RESPONDENT SAYS HE NEVER SERVED IN VIETNAM [SKIP TO SECTION I.]
- \* H-02. In what month and year did you begin your tour of duty in Vietnam?
- ENTER START MONTH (RANGE 1-12).
- \_\_\_\_\_
- ENTER LAST 2 DIGITS OF START YEAR.
- \_\_\_\_\_
- EDIT: START YEAR MUST BE  $\leq$  DISCHARGE YEAR AND  $\geq$  ENTRY YEAR.
- \* H-03. In what month and year did you end your tour of duty in Vietnam?
- ENTER END MONTH (RANGE 1-12).
- \_\_\_\_\_
- ENTER LAST 2 DIGITS OF END YEAR.
- \_\_\_\_\_
- EDIT: END YEAR MUST BE  $\leq$  DISCHARGE YEAR AND  $\geq$  ENTRY YEAR.
- \* H-04A. You are probably familiar with the terms "herbicide" and "defoliant". These chemicals, such as Agent Orange and Agent White, are used to make leaves drop from bushes and trees, or to kill grass and weeds.
- Did you ever spray herbicides yourself in Vietnam?
- 1 = YES  
2 = NO
- \* H-04B. Did you ever handle herbicide spray equipment or containers in Vietnam?
- 1 = YES  
2 = NO

- \* H-04C. Were you ever present when others were spraying herbicides in Vietnam?
- 1 = YES  
2 = NO
- \* H-04D. Did you ever get herbicides on your skin or clothing in Vietnam?
- 1 = YES  
2 = NO  
8 = DON'T KNOW
- \* H-04E. Did you ever pass through an area in Vietnam that looked like it had been defoliated (that is, sprayed with a chemical to kill vegetation, trees, and grass)?
- 1 = YES  
2 = NO  
8 = DON'T KNOW
- \* H-04F. Do you think you were exposed to herbicides in any other way in Vietnam?
- 1 = YES  
2 = NO  
8 = DON'T KNOW } → SKIP TO CHECKPOINT.
- H-04G. In what other way were you exposed?  
ENTER RESPONSE (LIMIT OF 40 CHARACTERS).
- 

CHECKPOINT

REFER TO H-04A AND H-04B.

- ONE OR BOTH QUESTIONS = YES → ASK H-05.  
 BOTH QUESTIONS = NO → SKIP TO H-09A.

- H-05. During your tour of duty in Vietnam, about how many days, weeks, or months altogether did you work spraying herbicides or handling herbicide equipment or containers?

(PROBE: Please give me your best estimate.)

ENTER NUMBER OF DAYS, WEEKS, OR MONTHS.

(RANGES = 1-30 DAYS

1-10 WEEKS

1-12 MONTHS.)

ENTER APPLICABLE UNIT:

1 = DAYS

2 = WEEKS

3 = MONTHS

H-06. How frequently did you work with herbicides during this time?

- 1 = DAILY
- 2 = SEVERAL TIMES PER WEEK
- 3 = ONCE A WEEK
- 4 = SEVERAL TIMES PER MONTH
- 5 = ONCE A MONTH
- 6 = LESS THAN ONCE A MONTH

H-07A. What was the name of a herbicide that you worked with in Vietnam?

ENTER NAME OF HERBICIDE (LIMIT OF 40 CHARACTERS).

---

H-08A. Did you work with any other herbicide in Vietnam?

- 1 = YES
- 2 = NO → SKIP TO H-09A.

H-07B. What was the name of the other herbicide?

ENTER NAME OF HERBICIDE (LIMIT OF 40 CHARACTERS).

---

H-08B. Was there any other herbicide that you worked with in Vietnam?

- 1 = YES
- 2 = NO → SKIP TO H-09A.

H-07C. What was the name of the other herbicide?

ENTER NAME OF HERBICIDE (LIMIT OF 40 CHARACTERS).

---

\* H-09A. Have you had any health problem that you think may have been caused by exposure to the herbicide, Agent Orange?

- 1 = YES
- 2 = NO
- 8 = DON'T KNOW } → SKIP TO H-12A.

HEALTH PROBLEM 1

---

H-10A. Please describe the health problem that you think may have been caused by your exposure to Agent Orange.

(PROBE: What part of the body was affected?)  
(PROBE: What kind of (KEYWORD) was it?)

RECORD HEALTH PROBLEM (LIMIT OF 40 CHARACTERS).

---

H-11A. In what year did this problem start?

ENTER LAST 2 DIGITS OF YEAR.

\_\_\_\_\_  
EDIT: YEAR MUST BE  $\geq$  SERVICE ENTRY YEAR.

H-09B. Have you had any other health problem that you think may have been caused by exposure to Agent Orange?

1 = YES  
2 = NO  
8 = DON'T KNOW }  $\rightarrow$  SKIP TO H-12A.

HEALTH PROBLEM 2

H-10B. Please describe the other health problem you think may have been caused by your exposure to Agent Orange.

(PROBE: What part of the body was affected?)  
(PROBE: What kind of (KEYWORD) was it?)

RECORD HEALTH PROBLEM (LIMIT OF 40 CHARACTERS).

H-11B. In what year did this problem start?

ENTER LAST 2 DIGITS OF YEAR.

\_\_\_\_\_  
EDIT: YEAR MUST BE  $\geq$  SERVICE ENTRY YEAR.

H-09C. Have you had any other health problem that you think may have been caused by exposure to Agent Orange?

1 = YES  
2 = NO  
8 = DON'T KNOW }  $\rightarrow$  SKIP TO H-12A.

HEALTH PROBLEM 3

H-10C. Please describe the other health problem you think may have been caused by your exposure to Agent Orange.

(PROBE: What part of the body was affected?)  
(PROBE: What kind of (KEYWORD) was it?)

RECORD HEALTH PROBLEM (LIMIT OF 40 CHARACTERS).

H-11C. In what year did this problem start?

ENTER LAST 2 DIGITS OF YEAR.

\_\_\_\_\_  
EDIT: YEAR MUST BE  $\geq$  SERVICE ENTRY YEAR.

\* H-12A. Did you come into contact with any chemicals (other than herbicides and defoliants) while you were in Vietnam?

1 = YES  
2 = NO → SKIP TO H-15.

H-12B. What chemical were you exposed to?

ENTER CHEMICAL NAME (LIMIT OF 40 CHARACTERS).

\_\_\_\_\_  
H-13A. Did you come into contact with any other chemicals (other than herbicides and defoliants) while you were in Vietnam?

1 = YES  
2 = NO → SKIP TO H-15.

H-13B. What other chemical were you exposed to?

ENTER CHEMICAL NAME (LIMIT OF 40 CHARACTERS).

\_\_\_\_\_  
H-14A. Did you come into contact with any other chemicals (other than herbicides and defoliants) while you were in Vietnam?

1 = YES  
2 = NO → SKIP TO H-15.

H-14B. What other chemical were you exposed to?

ENTER CHEMICAL NAME (LIMIT OF 40 CHARACTERS).

\_\_\_\_\_  
\* H-15. Did you take any pills to keep from getting malaria? (Do not include shots.)

1 = YES  
2 = NO → SKIP TO H-19A.

H-16A. What color were the pills you took? (If you took more than one kind, tell me about the ones you took first.)

1 = ORANGE	4 = WHITE
2 = PINK	5 = YELLOW
3 = RED	6 = OTHER

H-16B. How many of these pills did you take in a week?

ENTER NUMBER OF PILLS PER WEEK.  
IF LESS THAN ONE PER WEEK, ENTER "88."

\_\_\_\_\_ (RANGE = 1-14.)

H-17. Did you take any other pills to keep from getting malaria?

1 = YES  
2 = NO → SKIP TO H-19A.

H-18A. What color were the other pills you took to keep from getting malaria?

1 = ORANGE	4 = WHITE
2 = PINK	5 = YELLOW
3 = RED	6 = OTHER

H-18B. How many of these pills did you take in a week?

ENTER NUMBER OF PILLS PER WEEK.  
IF LESS THAN ONE PER WEEK, ENTER "88."

\_\_\_\_\_ (RANGE = 1-14.)

\* H-19A. Now I would like to ask about different combat experiences you may have had in Vietnam. Did you ever receive incoming fire from artillery, rockets, or mortars?

1 = YES  
2 = NO → SKIP TO H-20A.  
(IF REFUSED, SKIP TO H-24.)

H-19B. About how many times, altogether, did you receive incoming fire from artillery, rockets, or mortars?

(PROBE: Please give me your best estimate.)

ENTER NUMBER OF TIMES.

\_\_\_\_\_ (RANGE = 1-500.)  
(IF REFUSED, SKIP TO H-24.)

- \* H-20A. Did you ever encounter mines or booby traps?
- 1 = YES  
 2 = NO → SKIP TO H-21A.  
 (IF REFUSED, SKIP TO H-24.)
- H-20B. About how many times, altogether, did you encounter mines or booby traps?
- (PROBE: Please give me your best estimate.)
- ENTER NUMBER OF TIMES.
- \_\_\_\_\_ (RANGE = 1-500.)  
 (IF REFUSED, SKIP TO H-24.)
- \* H-21A. Did you ever receive sniper or sapper fire?
- 1 = YES  
 2 = NO → SKIP TO H-22A.  
 (IF REFUSED, SKIP TO H-24.)
- H-21B. About how many times, altogether, did you receive sniper or sapper fire?
- (PROBE: Please give me your best estimate.)
- ENTER NUMBER OF TIMES.
- \_\_\_\_\_ (RANGE = 1-500.)  
 (IF REFUSED, SKIP TO H-24.)
- \* H-22A. Were you ever ambushed?
- 1 = YES  
 2 = NO → SKIP TO H-23A.  
 (IF REFUSED, SKIP TO H-24.)
- H-22B. About how many times, altogether, were you ambushed?
- (PROBE: Please give me your best estimate.)
- ENTER NUMBER OF TIMES.
- \_\_\_\_\_ (RANGE = 1-500.)  
 (IF REFUSED, SKIP TO H-24.)

\* H-23A. Were you ever involved in a firefight with the Vietcong or the North Vietnamese Army?

1 = YES  
2 = NO → SKIP TO H-24.  
(IF REFUSED, SKIP TO H-24.)

H-23B. About how many times, altogether, were you involved in a firefight (with the Vietcong or the North Vietnamese Army)?

(PROBE: Please give me your best estimate.)

ENTER NUMBER OF TIMES.

\_\_\_\_\_ (RANGE = 1-500.)  
(IF REFUSED, SKIP TO H-24.)

---

\* H-24. INTERVIEWER: DID THE RESPONDENT SHOW ANY SIGN OF HESITANCY OR DISTRESS DURING THIS COMBAT SECTION?

1 = YES  
2 = NO

---

SECTION I. PSYCHOLOGICAL EXPERIENCES

- \* I-01. Now I would like to ask you some questions concerning different feelings or experiences you may have had during the past 6 months. During the past 6 months, how often have you had trouble falling asleep, staying asleep, or sleeping too much? Was that...(READ CHOICES)
- 1 = Very Often                      3 = Sometimes  
2 = Often                              4 = Never
- \* I-02. During the past 6 months, how often have you had trouble concentrating? Was that...(READ CHOICES)
- 1 = Very Often                      3 = Sometimes  
2 = Often                              4 = Never
- \* I-03. During the past 6 months, how often have you had trouble with your memory? Was that...(READ CHOICES)
- 1 = Very Often                      3 = Sometimes  
2 = Often                              4 = Never
- \* I-04. During the past 6 months, how often have you been irritable and short-tempered? Was that...(READ CHOICES)
- 1 = Very Often                      3 = Sometimes  
2 = Often                              4 = Never
- \* I-05. (During the past 6 months,) how often have you had explosions of aggressive or angry behavior? (Was that...(READ CHOICES))
- 1 = Very Often                      3 = Sometimes  
2 = Often                              4 = Never
- \* I-06. (During the past 6 months,) how often have you lost interest in your usual daily activities? (Was that...(READ CHOICES))
- 1 = Very Often                      3 = Sometimes  
2 = Often                              4 = Never
- \* I-07. (During the past 6 months,) how often have you felt distant from everyone, even those people you care about? (Was that...(READ CHOICES))
- 1 = Very Often                      3 = Sometimes  
2 = Often                              4 = Never
- \* I-08. (During the past 6 months,) how often have you felt that life is not meaningful? (Was that...(READ CHOICES))
- 1 = Very Often                      3 = Sometimes  
2 = Often                              4 = Never

- \* I-09. (During the past 6 months,) how often have you felt jumpy and easily startled or felt that you had to stay on guard all the time? (Was that...(READ CHOICES))
- 1 = Very Often                      3 = Sometimes  
2 = Often                              4 = Never
- \* I-10. During the past 6 months, how often have you had repeated dreams or nightmares about things that happened to you while in the Army? (Was that...(READ CHOICES))
- 1 = Very Often                      3 = Sometimes  
2 = Often                              4 = Never
- \* I-11. During the past 6 months, how often have you avoided activities that might remind you of things that happened to you while in the Army? (Was that...(READ CHOICES))
- 1 = Very Often                      3 = Sometimes  
2 = Often                              4 = Never
- \* I-12. (During the past 6 months,) how often have you had painful memories of things that happened to you while in the Army? (Was that...(READ CHOICES))
- 1 = Very Often                      3 = Sometimes  
2 = Often                              4 = Never
- \* I-13. (During the past 6 months,) how often have you started to feel and act as though a disturbing event you experienced in the Army was happening all over again? (Was that...(READ CHOICES))
- 1 = Very Often                      3 = Sometimes  
2 = Often                              4 = Never
- \* I-14. (During the past 6 months,) how often have you felt ashamed or guilty about the kinds of things you did to survive while in the Army? (Was that...(READ CHOICES))
- 1 = Very Often                      3 = Sometimes  
2 = Often                              4 = Never
- \* I-15. (During the past 6 months,) how often have you felt anxious or troubled when you were in situations that reminded you of times in the Army? (Was that...(READ CHOICES))
- 1 = Very Often                      3 = Sometimes  
2 = Often                              4 = Never
- \* I-16. Now, shifting the time period to include all of the past 12 months, did you talk with a health or mental health professional about a drug, alcohol, or emotional problem during the past 12 months?
- 1 = YES → SKIP TO I-18.  
2 = NO

I-17. During the past 12 months, have you gone to anyone other than a health professional for help with a drug, alcohol, or emotional problem?

1 = YES  
2 = NO

IF I-16 AND I-17 = NO, SKIP TO I-19.

I-18. During the past 12 months, how many times have you gone for help with any of these problems?

ENTER NUMBER OF TIMES.

\_\_\_\_\_ (RANGE = 1-365.)

\* I-19. During the past 12 months, were you admitted to any kind of treatment program because of a drug, alcohol, or emotional problem?

1 = YES  
2 = NO → SKIP TO I-21.

I-20. How many different times were you admitted to a treatment program for any of these problems during the past 12 months?

ENTER NUMBER OF TIMES.

\_\_\_\_\_ (RANGE = 1-9.)

\* I-21. INTERVIEWER: WAS THERE ANY SIGN OF HESITANCY OR DISTRESS ON THE PART OF THE RESPONDENT DURING THIS LAST SECTION?

1 = YES  
2 = NO

SECTION J. DRUG USE

- \* J-01. The next few questions are about different drugs you may have used without a doctor's prescription. Please keep in mind that your responses will be kept completely confidential.

While you were in the Army, did you use marijuana or hashish at least once a week for 3 months or longer?

1 = YES  
2 = NO

- \* J-02. While you were in the Army, did you use any other drugs, such as LSD, barbiturates, amphetamines, cocaine, heroin, PCP, or quaaludes at least once a week for 3 months or longer?

1 = YES  
2 = NO → SKIP TO J-04.

J-03. What drugs did you use?

ENTER ALL THAT APPLY--UP TO 8 CODES. RETURN THROUGH EXTRA PROMPTS.

1 = AMPHETAMINES (SPEED)	5 = LSD OR MescalINE
2 = BARBITURATES (DOWNERS)	6 = PCP (ANGEL DUST)
3 = COCAINE	7 = QUAALUDES
4 = HEROIN	8 = OTHER

- \* J-04. During the past 12 months, have you used marijuana or hashish at least once a week?

1 = YES  
2 = NO

- \* J-05. During the past 12 months, have you used any other drugs, such as LSD, barbiturates, amphetamines, cocaine, heroin, PCP, or quaaludes at least once a week?

1 = YES  
2 = NO → SKIP TO ADDRESS UPDATE.

J-06. What drugs have you used?

ENTER ALL THAT APPLY--UP TO 8 CODES. RETURN THROUGH EXTRA PROMPTS.

1 = AMPHETAMINES (SPEED)	5 = LSD OR MescalINE
2 = BARBITURATES (DOWNERS)	6 = PCP (ANGEL DUST)
3 = COCAINE	7 = QUAALUDES
4 = HEROIN	8 = OTHER

ADDRESS UPDATE

\* K-01. So that we can update our records, I would like to verify your current mailing address. Is your current address (LAST TRACING ADDRESS)?

- 1 = ADDRESS SAME AS ABOVE → SKIP TO K-06.
- 2 = ADDRESS DIFFERENT, RESPONDENT WILL GIVE NEW ADDRESS.
- 3 = RESPONDENT REFUSES (SKIP TO LOCATOR INFORMATION).

K-02. ENTER MAILING ADDRESS (LIMIT OF 35 CHARACTERS).

---

K-03. ENTER CITY (LIMIT OF 25 CHARACTERS).

---

K-04. ENTER 2 CHARACTER STATE CODE.

---

K-05. ENTER ZIP CODE.

---

K-06. I would also like to have a phone number where you can usually be reached during the day.

ENTER PHONE NUMBER IN FORMAT (XXX) XXX-XXXX  
IF FOREIGN PHONE ENTER (111) 111-1111

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

ENTER OFFICE EXTENSION NUMBER (UP TO FIVE DIGITS). IF NONE OR FOREIGN PHONE, RETURN THROUGH.

\_\_\_\_\_ (SKIP TO K-07 IF NOT A FOREIGN PHONE.)

ENTER THE FOREIGN PHONE NUMBER (LIMIT OF 14 CHARACTERS).

---

ENTER THE OFFICE EXTENSION, OR RETURN THROUGH.

---

LOCATOR INFORMATION

\* K-07. In case you move, we would like to know the name, address, and phone number of someone, preferably a close relative or friend not living with you, who will most likely know how to reach you.

1 = YES - RESPONDENT WILL SUPPLY INFORMATION  
2 = NO - RESPONDENT REFUSES → SKIP TO K-14.

K-08. ENTER NAME OF PERSON (LIMIT OF 25 CHARACTERS).

---

K-09. ENTER RELATIONSHIP OF PERSON TO RESPONDENT (LIMIT OF 15 CHARACTERS).

---

K-10. ENTER STREET ADDRESS (LIMIT OF 35 CHARACTERS).

---

K-11. ENTER CITY (LIMIT OF 15 CHARACTERS).

---

K-12. ENTER 2 LETTER STATE CODE.

---

K-13. ENTER PHONE NUMBER OF RELATIVE OR FRIEND (XXX) XXX-XXXX.

---

IF FOREIGN PHONE ENTER (111) 111-1111, THEN ENTER FOREIGN PHONE NUMBER IN NEXT PROMPT.

---

K-14. (DO NOT ASK IF ALREADY KNOWN.) I just have one more question, Mr. (LAST NAME). Throughout this interview I have asked you several questions about your tour of duty in the Army from (ENTRY YEAR) to (DISCHARGE YEAR). Since your discharge in (DISCHARGE YEAR), have you served another tour of active duty in any branch of the military?

1 = YES → IF RESPONDENT IS PRESELECTED, HE BECOMES UNSLECTED.  
SKIP MEDICAL EXAM SCRIPT AND READ FINAL CLOSE SCRIPT.  
2 = NO

CONCLUSION

† Mr. (LAST NAME), you have been selected by the Centers for Disease Control to be invited to the free medical examination that is a separate part of the study. Some information about the exam was included with the fact sheet and lead letter that were mailed. Within the next few months you will be given more information so you can make an informed decision about your participation.

\* Mr. (LAST NAME), this concludes the interview. Both the Centers for Disease Control and Research Triangle Institute appreciate your time and consideration in participating in this study. Your cooperation has been very important and represents a valuable contribution to our knowledge of the health status of all Vietnam-era army veterans. Do you have any questions that I can answer at this time?

IF YES, ANSWER QUESTION(S).  
IF NO, CLOSE WITH:

Thank you again Mr. (LAST NAME).  
Good-bye.

- 
- \* L-01. RESPONDENT COOPERATION WAS:
- |               |          |
|---------------|----------|
| 1 = VERY GOOD | 3 = FAIR |
| 2 = GOOD      | 4 = POOR |
- \* L-02. DID RESPONDENT CONSULT WITH ANYONE ELSE FOR HELP WITH ANSWERS?
- 1 = YES  
2 = NO
- \* L-03. WAS RESPONDENT INTERRUPTED OR DISTRACTED BY ANYONE?
- 1 = YES  
2 = NO
- \* L-04. DID YOU GIVE OUT THE PHONE NUMBER OF A VET CENTER?
- 1 = YES  
2 = NO

FOR MED EXAM SUBJECTS ONLY:

L-05. ARE YOU AWARE OF ANY CIRCUMSTANCES THAT WILL AFFECT THIS VETERAN'S ABILITY OR WILLINGNESS TO PARTICIPATE IN THE MEDICAL EXAMINATION?

1 = YES  
2 = NO → SKIP TO RESULT SCREEN.

---

† First paragraph is read only to veterans selected for medical examination.

L-06. WHAT ARE THE CIRCUMSTANCES?

L-06. ENTER 2 LINES OF COMMENTS (LIMIT OF 60 CHARACTERS PER LINE).

**APPENDIX D**  
***Random Samples of Responses to  
Open-Ended Medical Questions***



## **RANDOM SAMPLES OF RESPONSES TO OPEN-ENDED MEDICAL QUESTIONS<sup>a</sup>**

### **Reason For Medication Use**

1. SLIGHT ARTHRITIS IN HANDS, FEET
2. HIGH BLOOD PRESSURE DKC
3. ACID STOMACH DKC
4. UNDERACTIVE THYROID GLAND
5. DIABETES
6. DIURETIC
7. PAIN/BROKEN VERTEBRA/BROKEN LEG
8. HIGH BLOOD PRESSURE
9. HYPERTENSION
10. MIOC RDIAL INFRACTION, DILATES BLOOD VES
11. EAR INFECTIONS
12. ALLERGIES/GRASS/CATS/DUST
13. HIGH BLOOD PRESSURE
14. INFLAMMATORY ARTHRITIS/HANDS & BACK
15. ANXIETY DISORDER, POST TRAUMA STRESS SYN.
16. HYPERTENSION
17. HIGH BLOOD PRESSURE
18. CIATIC NERVE DAMAGE
19. HIGH BLOOD PRESSURE DKC
20. ALLERGY ENVIRONMENT
21. STOMACH ULCERS
22. HIGH BLOOD PRESSURE
23. SEVERE HEADACHES/MIGRAIN HEADACHES-DKC
24. HIGH BLOOD PRESSURE DKC
25. SEX CHANGE/HORMONES

### **Reason For Hospitalization**

1. FORESKIN CLOING OFF URINARY TRACT
2. CRUSHED RT HAND/DKC/ACCIDENT
3. CHRONIC ALCOHOLISM
4. ABCCESS TO APPENDIX
5. APPENDECTOMY
6. TONSILITIS
7. PEPTIC ULCER
8. SINUS SURGERY-CAVITIES PALLUPS,TUMORS
9. COLLAPSED LUNG
10. HERNIA OPERATION/NAME DK
11. RIGHT BROKEN ANKLE
12. COSMETIC SURGERY ON NOSE,BROKEN NOSE

<sup>a</sup> Since these are the actual entries made by the interviewers, misspellings occurred and have not been corrected here.

13. HEMORIDS
14. CYST (DKC) LOWER MIDDLE BACK
15. BROKEN WRIST-ACCIDENT
16. LIGAMENTS TORN IN LEFT KNEE (OPERATION)
17. BLOOD POISONING DUE TO CUT ON KNUCKLE
18. STOMACH PROBLEM-DKC
19. GALL BLADDER INFLAMMATION
20. REPAIRED LIGAMENT IN LEFT KNEE
21. TONSILS SWOLLEN INFECTED. DRAINED.
22. HEMORRHOID
23. FLU DKC
24. EXTREME CHEST PAINS DKC
25. CIRCUMCISION

**Reason for Current Limitation in an Activity**

1. BROKEN RIGHT HIP/DKC
2. CHLORACNE PROBLEM
3. HEMORRIDS CANNOT LIFT
4. RECURRING EPISODES OF MALARIA
5. LOSS OF PART OF LEFT HAND
6. PARY CARD DITUS DKC
7. LOWER BACK, PAINS, PULLED BACK IN ARMY
8. ART RITE TUS IN RIGHT SHOULDER DKC
9. 10% VISION ONLY IN LEFT EYE/ACCIDENT
10. PANCREAS NOT WORKING RIGHT DKC
11. BACK "SLIPS OUT"-CAUSES PAIN/DKC
12. TESTICULAR GLAND SURGERY,PAIN WITH SEX
13. FLU/DKC/WHOLE BODY AFFECTED
14. POISON IVEY BOTH HANDS
15. AMPUTATED ONE FINGER FROM LF HAND
16. WRIST FRACTURE CAN BEND ALL THE WAY
17. HEARING LOSS- BOTH EARS DKC
18. PSYCHOLOGICAL PROBLEMS/DKC
19. TORN LIGAMENTS IN HIP DKC
20. SLIPPED DISC. FACETED SYNDROME
21. NERVOUS CONDITION BECOMES ANGRY
22. DKC-BACK SPASMS-"MINOR ARTHRITIS"
23. LIFTING/HIGH BLOOD PRESSURE
24. DKC-TYPE OF HYDROSIS-WATER UNDER SKIN
25. ASMAH DKC

**Other Current Health Problem**

1. HEMMORROIDS
2. RECURRING BLISTERS ON SOLES OF FEET;DKC
3. THIN STOMACH LINING,GET INDIGESTION DKC
4. RUN DOWN, DIZZY, NERVOUS DKC

5. DEPRESSION-DUE TO DIVORCE(ADJUSTING)
6. TORN CARTLEDGE RT KNEE
7. RASH:RED, ITCHY-BOTHS KNEES TO FEET DKC
8. TIGHTNESS IN CHEST; DKC
9. PAIN IN GROIN AREA DKC
10. LAST 2 YEARS/CONTINUALLY HAVE HEADACHES
11. FREQUENT NOSE BLEEDS
12. DKC-HEARING LOSS IN LEFT EAR, HEARS 10%
13. RASH- ALL OVER DKC
14. SHELLFISH, NUTS ALLERGY
15. OVERWEIGHT DKC
16. HIGH CHOLESTEROL LEVEL
17. SHRAPNEL WOUND IN LEFT LEG
18. BLOCKAGE IN CIRCULATION IN LEG NEAR HIP
19. BOILS ON LOWER BODY
20. SKIN RASH ON LEGS DKC
21. HIATAL HERNIA
22. ARTHRITIS IN RIGHT KNEE-DKCT
23. BLOTCHES ON FACE DKC
24. DISPLACED LENS IN BOTH EYES
25. ONLY HAS ONE KIDNEY



**APPENDIX E**  
***Definition and Categorization  
of Military Service Characteristics***



## Definition and Categorization of Military Service Characteristics

**Self-Reported Combat Exposure.** Vietnam veterans were asked about the following combat experiences: (1) received incoming fire from artillery, rockets, or mortars; (2) encountered mines or booby traps; (3) received sniper or sapper fire; (4) were ambushed; and (5) were involved in a firefight with the Vietcong or the North Vietnamese Army. Those who answered "Yes" to any of the questions about these experiences were then asked how many times they had experienced the event. The maximum number of times recorded for each question was 500. To minimize digit bias, we grouped responses to each frequency question into the following nine categories: 0, 1-5, 6-10, 11-20, 21-30, 31-50, 51-100, 101-250, and  $\geq 251$ . Unknown values were counted as zero unless there were three or more for the same man; these individuals were excluded entirely from consideration. Arbitrary "scores" of 0 to 8 were assigned to these frequency categories. A principal components analysis indicated that "scaled scores" (*i.e.*, original scores divided by 9) for the five questions were equally important, so a summary combat exposure score for each man was created by simply adding the original scores across the five questions. Thus, the summary score ranged from 0 to 40 for each veteran. For most analyses, summary combat exposure scores were divided, *a priori*, into quartiles, since associations between combat experiences and adverse health outcomes may not be linear (Table E-1). The relationships between the five combat experiences and the summary combat exposure index are shown in Table E-2.

**Self-Reported Herbicide Exposure.** Responses to the six questions on herbicide exposure in Vietnam are summarized in a four-category variable that reflects increasing levels of self-reported exposure. Men in the "High" group said they had sprayed herbicides or handled spray equipment; those in the "Moderate" group said they had been present during spraying or had gotten herbicides on their skin or clothing but had not sprayed herbicides or handled spray equipment; those in the "Low" group said they had walked through a defoliated area or had been exposed in some other way but had not been exposed in the previous four ways; and those in the "None" group said they had not been exposed to herbicides in Vietnam. Responses of "Don't know" and "Refused" for each question were counted as "No." The numbers of positive responses to the individual herbicide exposure questions within each level of the summary exposure index are shown in Table E-3 and the "Don't know/Refused" responses are shown in Table E-4. The relationship between the combat exposure index and the herbicide exposure index is shown in Table E-5.

**Use of Illicit Drugs in the Army.** Veterans were asked if they had used marijuana or any of eight specific "hard" drugs (or drug groups) at least once a week for 3 months or more while in the Army (questions J-01 to J-03). A summary variable was created that grouped

**Table E-1. Distribution of Vietnam Veterans According to Score on the Combat Exposure Index**

Combat Exposure Index	Summary Score	Number of Men <sup>a</sup>
Low	0-2	1982
Moderate	3-6	1898
High	7-12	1834
Very high	13-40	1987

<sup>a</sup> Excludes 15 men who denied serving in Vietnam and 208 men who responded "Don't know" or "Refused" to three or more of the combat experience questions.

**Table E-2. Average Number of Different Combat Experiences Reported by Vietnam Veterans, According to Score on the Combat Exposure Index**

Combat Experience <sup>a</sup>	Combat Exposure Index <sup>b</sup>			
	Low	Moderate	High	Very High
Received incoming artillery fire	1.7	11.1	59.7	118.2
Encountered mines or booby traps	0.1	0.8	5.0	50.9
Received sniper or sapper fire	0.7	3.6	14.9	82.8
Ambushed	0.0	0.3	1.2	13.3
Involved in firefights with enemy	0.1	1.2	5.3	50.4

<sup>a</sup> From Questions H-19A, H-19B, H-20A, H-20B, H-21A, H-21B, H-22A, H-22B, H-23A, and H-23B.

<sup>b</sup> Excludes 15 men who denied serving in Vietnam and 208 men who responded "Don't know" or "Refused" to three or more of the combat experience questions.

**Table E-3. Number of Vietnam Veterans Giving a "Yes" Response to Each Herbicide Exposure Question, by Level of the Herbicide Exposure Index**

Type of Herbicide Exposure <sup>a</sup>	Herbicide Exposure Index <sup>b</sup>			
	None (N = 3437)	Low (N = 2446)	Moderate (N = 1645)	High (N = 311)
Sprayed herbicides	0	0	0	143
Handled spray equipment	0	0	0	353
Present during herbicide spraying	0	0	1438	282
Got herbicides on skin, clothing	0	0	811	224
Passed through defoliated area	0	2351	1476	323
Other	0	269	307	93

<sup>a</sup> From Questions H-04A, H-04B, H-04C, H-04D, H-04E, and H-04F.

<sup>b</sup> Excludes 15 men who denied serving in Vietnam.

**Table E-4. Number of Vietnam Veterans Giving "Don't Know/Refused" Responses to Each Herbicide Exposure Question, by Level of the Herbicide Exposure Index**

Type of Herbicide Exposure <sup>a</sup>	Herbicide Exposure Index <sup>b</sup>			
	None <sup>c</sup> (N = 3437)	Low (N = 2446)	Moderate (N = 1645)	High (N = 311)
Sprayed herbicides	37	26	31	11
Handled spray equipment	223	278	162	4
Present during herbicide spraying	661	731	33	23
Got herbicides on skin, clothing	1087	1332	534	98
Passed through defoliated area	1285	47	68	13
Other	1176	805	424	106

<sup>a</sup> From Questions H-04A, H-04B, H-04C, H-04D, H-04E, and H-04F.

<sup>b</sup> Excludes 15 men who denied serving in Vietnam.

<sup>c</sup> Includes 20 men who responded "Don't know" or "Refused" to all six questions.

**Table E-5. Distribution of Vietnam Veterans by Their Scores on the Herbicide Exposure Index and Combat Exposure Index<sup>a</sup>**

Combat Exposure Index	Herbicide Exposure Index				Total
	None	Low	Moderate	High	
Low	1383	407	139	53	1982
Moderate	902	629	292	75	1898
High	666	623	458	87	1834
Very high	423	716	698	150	1987
Total	3374	2375	1587	365	7701

<sup>a</sup> Excludes 208 men who responded "Don't know" or "Refused" to three or more of the combat experience questions and 15 men who denied serving in Vietnam.

veterans into three categories: (1) men who said they did not use drugs regularly while in the Army; (2) men who said they used marijuana or hashish only; and (3) men who used "hard" drugs (*i.e.*, amphetamines, barbiturates, cocaine, heroin, LSD or mescaline, PCP or "angel dust," quaaludes) with or without marijuana. If a man said "Yes" to marijuana use but responded "Don't know" or refused to answer the questions on "hard" drug use, he was classified in the "Marijuana only" category of the summary variable. Veterans with other combinations of "Don't know/Refused" were deleted from analyses of this variable. The distribution of regular drug use in the Army is shown in Table E-6.

**Midpoint of Vietnam Tour.** This is the calendar year in which the midpoint of the man's tour of duty in Vietnam occurred. We have grouped it into three classes: 1965-67, 1968-69, and 1970-73. These particular categories were chosen, since they reflect changes in level and type of combat activity in Vietnam, the state of morale of U.S. forces there, and access to and use of narcotics in Vietnam. Thus, 1965-67 was associated with relatively high cohesion and morale; 1968-69 was a transitional period of mixed cohesion and demoralization; and

**Table E-6. Categorization of Illicit Drug Use in the Army Among Vietnam and Non-Vietnam Veterans**

A. Summary Index <sup>a</sup>		
Category	Vietnam	Non-Vietnam
None (referent)	5704	5834
Marijuana only	1497	938
Hard drugs	675	546
B. Use of Specific Types of Hard Drugs <sup>b</sup>		
Type of Drug	Vietnam	Non-Vietnam
Amphetamines	350	355
Barbiturates	229	194
Cocaine	142	146
Heroin	300	131
LSD or mescaline	187	298
PCP or "angel dust"	43	48
Quaaludes	85	101
Other hard drugs	127	82

<sup>a</sup> Excludes 48 Vietnam veterans and 46 non-Vietnam veterans with missing data.

<sup>b</sup> Excludes 37 Vietnam veterans and 33 non-Vietnam veterans with missing data.

1970-72 was a period of widespread breakdowns in troop discipline (Moskos, 1975). U.S. forces wounded and killed in action reached their peak in 1968, partly in association with the "Tet offensive" and subsequent counteroffensives (Neel, 1973; Veterans Administration, 1980; Stanton, 1985). Highly purified, inexpensive heroin became plentiful during 1970, and heroin use peaked in 1971-72 (Baker, 1971; Holloway, 1974; Stanton, 1976).

**Duty Military Occupational Specialty (Duty MOS).** This is the principal job recorded in the Army record for the man's tour of duty in Vietnam. It could be different from his primary MOS, the job for which he was trained in the Army. We have dichotomized duty MOS into *tactical jobs* (e.g., infantryman, artillery crewman, armored vehicle crewman, combat engineer) and *nontactical jobs*.

**Type of Unit.** This is based on the principal unit (*i.e.*, organizational entity) to which the man belonged as recorded in the Army record for his tour of duty in Vietnam. *Combat units* include infantry, artillery, armor, cavalry, and engineer. *Support units* include ordnance, quartermaster, signal, military police, adjutant general, and the like.

Table E-7 shows the distribution of Vietnam veterans by categories of these last three variables.

**Table E-7. Distribution of Vietnam Veterans According to Categories of Three Variables Obtained From U.S. Army Records**

Variable	Categories Used in Analysis	Number of Men
Midpoint of Vietnam Tour	1965-67 (referent)	1931
	1968-69	3488
	1970-73	2469
Duty MOS	Tactical	2727
	Nontactical (referent)	5136
Type of Unit	Combat	4478
	Support (referent)	3376

## REFERENCES

- Baker SL Jr. Drug abuse in the United States Army. Bull NY Acad Med 1971; 47:541-9.
- Holloway HC. Epidemiology of heroin dependency among soldiers in Vietnam. Milit Med 1974; 139:118-13.
- Moskos CC Jr. The American combat soldier in Vietnam. J Social Issues 1975; 31:25-37.
- Neel S. Medical support of the U.S. Army in Vietnam, 1965-1970. Washington, DC: Department of the Army, 1973:36.
- Stanton MD. Drugs, Vietnam, and the Vietnam veteran: an overview. Am J Drug Alcohol Abuse 1976; 3:557-70.
- Stanton SL. The rise and fall of an American army. Novato, California: Presidio Press, 1985:205-79.
- Veterans Administration, Office of Controller, Reports and Statistics Service. Data on Vietnam era veterans. Washington, DC: Veterans Administration, September 1980.



**APPENDIX F**

***Number and Percent of "Don't Know" and "Refused" Responses for Selected Medical Conditions and Covariates***



**Table F-1. Number and Percent of "Don't Know" and "Refused" Responses for Selected Covariates, by Place of Service**

Covariate	Vietnam				Non-Vietnam			
	Don't Know		Refused		Don't Know		Refused	
	No.	%	No.	%	No.	%	No.	%
Marital status	0	0.0	7	0.1	0	0.0	6	0.1
Education	3	<0.1	3	<0.1	1	<0.1	7	0.1
Current employment status	1	<0.1	0	0.0	1	<0.1	1	<0.1
Income	32	0.4	140	1.8	28	0.4	184	2.5
No. cigarettes per day	14	0.2	1	<0.1	18	0.2	3	<0.1
No. alcoholic drinks per month	98	1.2	6	0.1	81	1.1	8	0.1
Potential civilian herbicide exposure	0	0.0	2	<0.1	0	0.0	9	0.1
Skin/clothing contact with industrial chemicals	10	0.1	3	<0.1	10	0.1	10	0.1
Body mass index	4	0.1	0	0.0	3	<0.1	0	0.0
Current use of illicit drugs (summary index)	2	<0.1	36	0.5	1	<0.1	35	0.5
Marijuana	1	<0.1	35	0.4	1	<0.1	33	0.4
Hard drugs	1	<0.1	26	0.3	0	0.0	27	0.4

**Table F-2. Number and Percent of "Don't Know" and "Refused" Responses for Selected Health Outcome Questions, by Place of Service**

Health Outcome (Question No.)	Vietnam				Non-Vietnam			
	Don't Know		Refused		Don't Know		Refused	
	No.	%	No.	%	No.	%	No.	%
Perceived health (A-01)	5	0.1	1	<0.1	3	<0.1	0	0.0
Chloracne (A-07)	55	0.7	2	<0.1	10	0.1	0	0.0
Other skin conditions (A-16)	2	<0.1	1	<0.1	4	0.1	1	<0.1
Excessive hair growth (A-13)	10	0.1	1	<0.1	7	0.1	1	<0.1
Anemia (A-21)	18	0.2	1	<0.1	13	0.2	1	<0.1
Mononucleosis (A-22)	23	0.3	1	<0.1	5	0.1	0	0.0
Diabetes (A-23)	5	0.1	1	<0.1	1	<0.1	1	<0.1
Cancer (A-25A)	7	0.1	3	<0.1	1	<0.1	0	0.0
Benign tumor, growth, or cyst (A-28A)	11	0.1	2	<0.1	5	0.1	2	<0.1
Cirrhosis (A-31A)	6	0.1	1	<0.1	2	<0.1	0	0.0
Hepatitis (A-32A)	10	0.1	1	<0.1	4	0.1	0	0.0
Porphyria (A-33A)	11	0.1	1	<0.1	2	<0.1	0	0.0
Liver abscess (A-34A)	7	0.1	1	<0.1	3	<0.1	0	0.0
Other liver condition (A-35A)	4	0.1	1	<0.1	2	<0.1	1	<0.1
Esophageal ulcer (A-36A)	17	0.2	1	<0.1	11	0.1	0	0.0
Gastric ulcer (A-37A)	19	0.2	1	<0.1	13	0.2	0	0.0
Duodenal ulcer (A-38A)	30	0.4	1	<0.1	17	0.2	0	0.0
Urinary tract problems (A-39A)	9	0.1	1	<0.1	2	<0.1	1	<0.1
Hypertension (A-43A)	3	<0.1	1	<0.1	6	0.1	0	0.0
Persistent headaches (A-44)	2	<0.1	1	<0.1	2	<0.1	0	0.0
Twitching, tics, tremors (A-45)	3	<0.1	1	<0.1	4	0.1	0	0.0
Dizziness (A-46)	5	0.1	2	<0.1	1	<0.1	0	0.0
Numbness or tingling (A-47)	2	<0.1	1	<0.1	1	<0.1	0	0.0
Weakness in arms, legs (A-48)	2	<0.1	1	<0.1	0	0.0	0	0.0
Muscle soreness (A-49)	4	0.1	1	<0.1	1	<0.1	0	0.0
Ringing in ears (A-50)	2	<0.1	2	<0.1	2	<0.1	1	<0.1
Difficulty conceiving a child (B-19)	12	0.2	10	0.1	6	0.1	16	0.2
Had insomnia (I-01)	5	0.1	3	<0.1	9	0.1	6	0.1
Had trouble concentrating (I-02)	4	0.1	3	<0.1	8	0.1	5	0.1
Had trouble with memory (I-03)	2	<0.1	3	<0.1	3	<0.1	5	0.1
Been irritable and short-tempered (I-04)	0	0.0	3	<0.1	9	0.1	8	0.1
Had explosions of aggressive or angry behavior (I-05)	7	0.1	6	0.1	5	0.1	8	0.1
Had loss of interest in usual activities (I-06)	8	0.1	3	<0.1	8	0.1	7	0.1
Felt distant from people (I-07)	7	0.1	4	0.1	7	0.1	6	0.1
Felt life is not meaningful (I-08)	7	0.1	15	0.2	5	0.1	12	0.2

**Table F-2. Number and Percent of "Don't Know" and "Refused" Responses for Selected Health Outcome Questions, by Place of Service – Continued**

Health Outcome (Question No.)	Vietnam				Non-Vietnam			
	Don't Know		Refused		Don't Know		Refused	
	No.	%	No.	%	No.	%	No.	%
Felt jumpy and easily started (I-09)	5	0.1	7	0.1	3	<0.1	10	0.1
Had repeated dreams about things that happened in Army (I-10)	9	0.1	8	0.1	3	<0.1	5	0.1
Avoided activities that were reminiscent of Army (I-11)	10	0.1	7	0.1	5	0.1	6	0.1
Had painful memories of things that happened in Army (I-12)	7	0.1	9	0.1	6	0.1	4	0.1
Had <i>deja vu</i> feelings about Army (I-13)	8	0.1	11	0.1	5	0.1	6	0.1
Felt ashamed of things done in Army (I-14)	10	0.1	17	0.2	4	0.1	8	0.1
Felt anxious when in situations that were reminiscent of Army (I-15)	9	0.1	16	0.2	2	<0.1	8	0.1
Did veteran talk with mental health professional in past 12 months? (I-16)	0	0.0	3	<0.1	2	<0.1	2	<0.1
Was veteran admitted to treatment program or drug, alcohol, or emotional problem in past 12 months? (I-19)	1	<0.1	3	<0.1	0	0.0	1	<0.1