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TRACKING HEALTH PROMOTION DATA IN THE U.S. NAVY

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BETHESDA, MARYLAND

Tracking Health Promotion Data in the U.S. Navy

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SUMMARY

Problem

A need exists to create an instrument or process to provide information to naval decision makers responsible for developing and assessing various health promotion programs. Data collected on such a standarized form or through an automated process could be used to evaluate the effectiveness of health promotion programs and to monitor the health status of naval personnel.

Objective

The purpose was twofold: (a) to create a machine-scannable instrument, "Tracking Health Promotion Data," to be used to collect health promotion information and (b) to evaluate the effectiveness of the form in terms of understandability and efficiency by examining responses from a sample of officers and enlisted personnel who completed the instrument at the time of a periodic physical examination.

Approach

The first phase of this study was the development of the "Tracking Health Promotion Data" form, a one-page instrument containing 29 demographic, life-style, health-status, and health promotion items. During the second phase, a pilot study was conducted at four San Diego area naval branch clinics to test the use of the "Tracking Health Promotion Data" form, primarily its ease in being completed and its understandability as reflected by percentages of completed items. Information was collected during a three-month period by distributing the instrument to Navy personnel (n = 307 men and 34 women) who were scheduled for a required physical examination. Responses on the instrument were processed onto a computer file, and frequency and percentage distributions were compiled by age and sex for each item.

Results

The overall completed response rate per item of the instrument was quite high. The major difficulties with the questionnaire were understandability and placement of four items. Also, the results suggested that clinic personnel should be explicitly instructed to fill in the blood pressure and cholesterol items and to supply missing information. In this sample, the percentage of smokers who entered the Navy was

lower than that reported in a 1988 Navy-wide sample, and the percentage of current male smokers represented a lower proportion than that reported previously. Another health promotion goal has been to reduce the number of alcohol abusers in the Navy; results of comparisons in this relatively small sample showed that the percentages of drinkers decreased with age. Overall, the percentage of men in this sample who responded that they consume alcoholic beverages was almost 77.0%. Other results indicated that cholesterol levels and the percentage of individuals with a back problem increased with age. Individuals who engaged in no exercise program accounted for 10.7% of the men's and 7.1% of the women's samples. The percentages of respondents who were rated as being overfat or obese were 11.1% of the men and 18.5% of the women; less than 4% of both groups failed the physical readiness test.

Conclusions

Overall results of this study are consistent with other research which shows that progress is being made in the direction of improved life-style behaviors among Navy men and women. Other findings indicate that the tracking form developed can be completed with considerable ease. For the next phase of this study, the revised form will be assessed on a larger sample to evaluate its effectiveness.

Recommendations

One of the objectives of monitoring Navy-wide health promotion data is to identify areas where progress should be improved and to target populations that need intervention programs. It is recommended that smoking cessation efforts be expanded if the goal of a smoke-free Navy is to be achieved even beyond the projected date of 2000. Another recommendation is to examine the feasibility of developing an electronic health promotion tracking system that can be implemented Navy wide. The possibility exists that electronic health promotion tracking records can be created on all naval personnel at the time of service entry, to be updated as physical examinations are performed or at times when changes in health status occur. Through these endeavors, the Navy would be able to determine how well naval personnel are doing in terms of meeting health promotion objectives and to identify specific intervention programs that need to be initiated or expanded.

Tracking Health Promotion Data in the U.S. Navy

The U.S. Department of Health and Human Services recently released a report, Healthy People 2000, which describes the nation's public health goals and objectives for the 1990s (JAMA, 1990). The 298 objectives have been subsumed under 22 priority areas and clustered according to four major categories: health promotion, health protection, preventive services, and surveillance.

Many of the same objectives, which have been incorporated into health promotion programs, are being promulgated by the four branches of the military (Rothberg, 1987). In 1982, the Navy implemented a physical readiness program that was designed to promote health and physical fitness by establishing minimum standards for fitness and weight control and by emphasizing the need for all personnel to participate in wholesome life-style behaviors. More recently, physical readiness efforts in the Navy have become a part of a health promotion program that includes seven elements: smoking prevention and cessation, physical fitness and sports, back injury prevention, nutrition education and weight/fat control, stress management, alcohol and drug abuse prevention, and hypertension screening, education, and control.

Research programs have been initiated to evaluate the effectiveness of various health promotion endeavors in the military; the Naval Health Research Center has been tasked since 1983 with evaluating programs subsumed under the Navy's Health and Physical Readiness Program. Since that time, numerous research studies have been completed on almost all facets of physical readiness and health promotion. An example of such research includes a recently published report that provides information on cholesterol levels in Navy personnel who were scheduled for a physical examination at two naval hospitals during a three-month period (Trent, 1989). Another study surveyed types of tobacco cessation programs available to Navy personnel (Conway, Hurtado, & Woodruff, 1990); a recent project was initiated to collect data on the rate of smoking prevalence at accession locations in the Navy.

One of the difficulties in conducting this type of research is the unavailability of health promotion data on large samples of Navy personnel. To address this issue, the

present study was designed to develop a single page, paper-and-pencil, machine-scannable questionnaire as an instrument for gathering selected health promotion data, such as tobacco use, exercise activities, and cholesterol and blood pressure levels. To be specific, the purpose of this study was twofold: (a) to create an instrument ("Tracking Health Promotion Data") to be used to collect health promotion information and (b) to evaluate the effectiveness of the form in terms of understandability and efficiency by examining responses from a sample of Navy personnel who completed the form during a periodic examination. The rationale for developing and compiling data from such an instrument is to provide information to decision makers responsible for creating and assessing various health promotion programs. Such a form would be used to evaluate the effectiveness of these programs while monitoring the well-being of Navy personnel.

Method

Instrument. The first phase of this project involved the development of an instrument that not only would be easy to complete in a minimum amount of time but also could easily be processed either manually or mechanically. The result was the "Tracking Health Promotion Data" form, a one-page instrument containing 29 demographic, life-style, health-status, and health promotion items (Appendix A).

As can be seen in Appendix A, there are eight demographic items: years of education, age, rank or pay grade, race, marital status, sex, height, and weight. Items pertaining to life style include tobacco use (smoking and smokeless tobacco behaviors), duration of time since former smokers quit, amount of alcohol consumed, duration of time since former drinkers quit, and perceptions of one's diet. Other items are designed to solicit health-status information on the incidence of back problems, present status of the back, systolic and diastolic blood pressure levels, methods used to control blood pressure, and levels of total cholesterol, triglycerides, and high-density lipoprotein (HDL) cholesterol. The health promotion items include exercise habits and those related to testing: physical readiness test (PRT) results and percent body fat (normal, overfat, and obese).

Procedure. During a three-month period, a pilot study was conducted at four San Diego area naval branch clinics to test the use of the "Tracking Health Promotion Data" form, primarily its ease in being completed and its understandability as reflected by percentages of completed items. Information was collected by distributing the instrument to Navy personnel (n = 307 men and 34 women) who were scheduled for a required physical examination. The demographic, life-style, and health promotion items were completed by each serviceperson. The physician or Hospital Corpsman was asked to supply such information as cholesterol levels, blood pressure values, and type of blood pressure control. Responses on the instrument were processed onto a computer file, and frequency and percentage distributions were compiled for each variable by age and sex. Cross tabulations also were computed to examine the relationship of responses among various questions, such as comparing PRT classification scores with percent body fat to provide an indication of the validity of the responses.

Results

Instrument Understandability. The overall completed response rate per item was quite high. Items that had the fewest missing responses were the demographic and pay grade questions: age, sex, education, rank/pay grade, ethnicity, marital status, weight, and height. Other items with equally low percentages (< 5.0%) of missing data included alcohol use, smoking tobacco use, back problems, and injuries suffered during official PRT. Items that had less than 10.0% missing data were smokeless tobacco use (7.7%) and PRT classification score (9.7%). The two exercise and current status of the back items were considered to be somewhat difficult to understand, as reflected by the relatively high percentages of missing responses (11.6 to 13.4%). The item requesting percent body fat also had a fairly high percentage of missing information (18.4%), which suggested that this item should be rewritten and placed adjacent to the overall PRT classification score. The items pertaining to one's diet seemed to be confusing to respondents, specifically the two requesting information on whether or not one's diet was low in fat or sodium. Results of the cross tabulation

analyses tended to support the conclusions about item clarity and placement rather than reflecting a correspondence between items; for example, only 4.3% of this sample did not know either their percent body fat or PRT classification score. Also, all but two of the obese and overweight respondents knew their PRT classification score.

Instrument Difficulties. Blood pressure levels had a relatively high missing data rate (25.3%), although these values are recorded and available on all personnel. Other items with large proportions of blank answers were the three cholesterol levels; the percentage of incomplete answers was 20.1%, which did not include personnel less than 25 years of age who, in accordance with Navy policy, would not have their cholesterol measured. An explanation for this missing information was that cholesterol values were not easily obtained, as concluded by personnel at the clinics. Typically, the laboratory returns the cholesterol measures from five to seven days after the initial visit, a time lag that could lead to some slippage in completing the form. Such results suggest that more explicit instructions should be provided to clinic personnel to emphasize the importance of completing the cholesterol and blood pressure items on the forms.

Frequency and percentage distributions were compiled on the demographic, life-style, health-status, and health promotion items. Item percentages and means are presented in the following subsections.

Demographic Variables. Mean years of education were 13.2 for men and 13.6 for women. Women tended to be younger ($\bar{X}$ = 27.6 years) than men ($\bar{X}$ = 30.7 years). The percentage of Caucasians was relatively comparable for men and women at close to 74.0%; the percentages of Blacks, on the other hand, differed in that the percentages were 24.2 for women and 11.4 for men. Another difference between the sexes was the percent of Filipinos in each sample: 7.5% for men, as contrasted with none in the women's sample. The mean height for men was 70.1 inches, and the mean height for women was 64.3 inches. Mean weights were 177.7 pounds for men and 141.0 for women.

Life-style Variables. The overall percentages of personnel who smoked tobacco were 39.5% for men and 23.6% for women. A total of 7.2% of the men reported using

smokeless tobacco; no women reported current use of smokeless tobacco. Figure 1 illustrates the percentage distribution by age and sex of tobacco-smoking behavior in this sample of active-duty Navy personnel. The distribution showed the following percentages of men who had never smoked: 57.9% of the 17-to-19-year-olds, 47.8% of the 20-to-29-year-olds, 38.3% of men ages 30 to 39, and 24.5% of men over 40 years. The percentages for women who had never smoked were 68.4% of the 17-to-29-year-olds and 53.3% for women older than 30 years of age. The percentage of men who indicated that they were former smokers was 18.5%; 14.7% of the women claimed to be former smokers. Figure 2 depicts the percentage distribution of alcohol consumption among active-duty Navy personnel by age and sex. The percentages of men who consumed alcoholic beverages ranged from 22.9% who reported alcohol use of about one drink per month to 0.7% who drank more than 36 drinks per week. Only 23.2% considered themselves nondrinkers, and 7.4% identified themselves as former drinkers. The percentages of alcohol use were lower for women with 70.6% being either a nondrinker or one who drank no more than one drink per month.

Health-status Variables. Figure 3 shows the percentage distributions of total cholesterol levels among active-duty Navy personnel by age and sex. Levels below 199 mg/dL are considered low risk, between 200 and 239 are moderate risk, and above 240 mg/dL are considered high risk. The percentages of men with high-risk levels of cholesterol were 35.6% for the 30-to-39-year-olds and 40.0% for men older than 40 years of age. None of the women had cholesterol levels above the moderate-risk range of 200-239 mg/dL. The mean cholesterol levels were 206.3 for men (in a range from 100 to 408) and 182.6 for women (in a range from 158 to 221). HDL values ranged from 21 to 92 ($\bar{X}$ = 44.6) for men and 28 to 67 ($\bar{X}$ = 49.1) for women. Figure 4 illustrates the percentage distribution of back problems among active-duty Navy personnel by age and sex. Recurring back problems and those with continuing pain were reported by 20.8% of the men and 18.8% of the women. The percentages of men who had experienced a back problem increased linearly with age.

Health Promotion Variables. In examining the proportions of personnel who exercised, a total of 10.7% of the men and 7.1% of the women reported that they did

Figure 1

Percentage Distribution of Tobacco-smoking Behavior among Active-duty Navy Personnel by Age and Sex

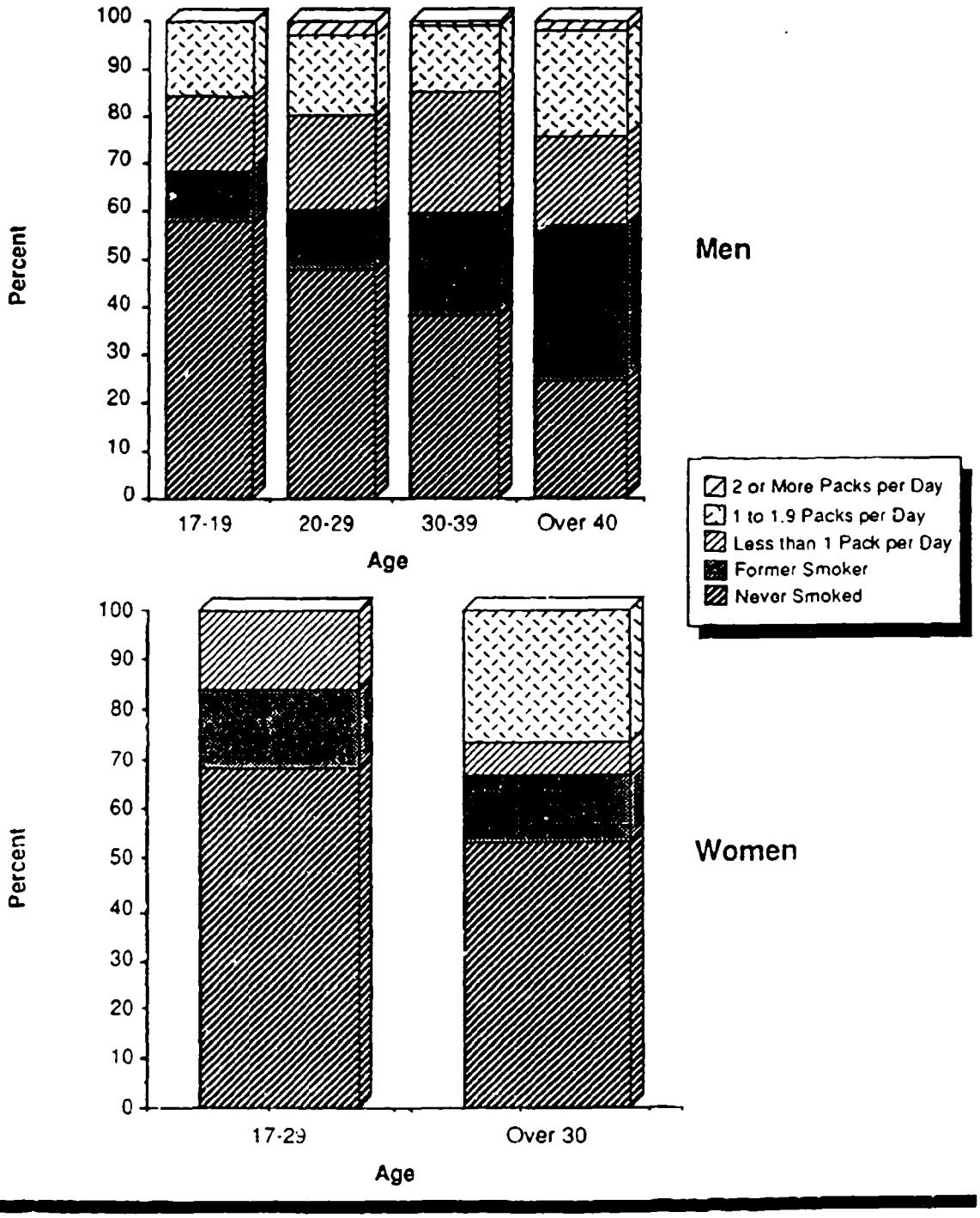


Figure 2

Percentage Distribution of Alcohol Consumption among Active-duty Navy Personnel by Age and Sex

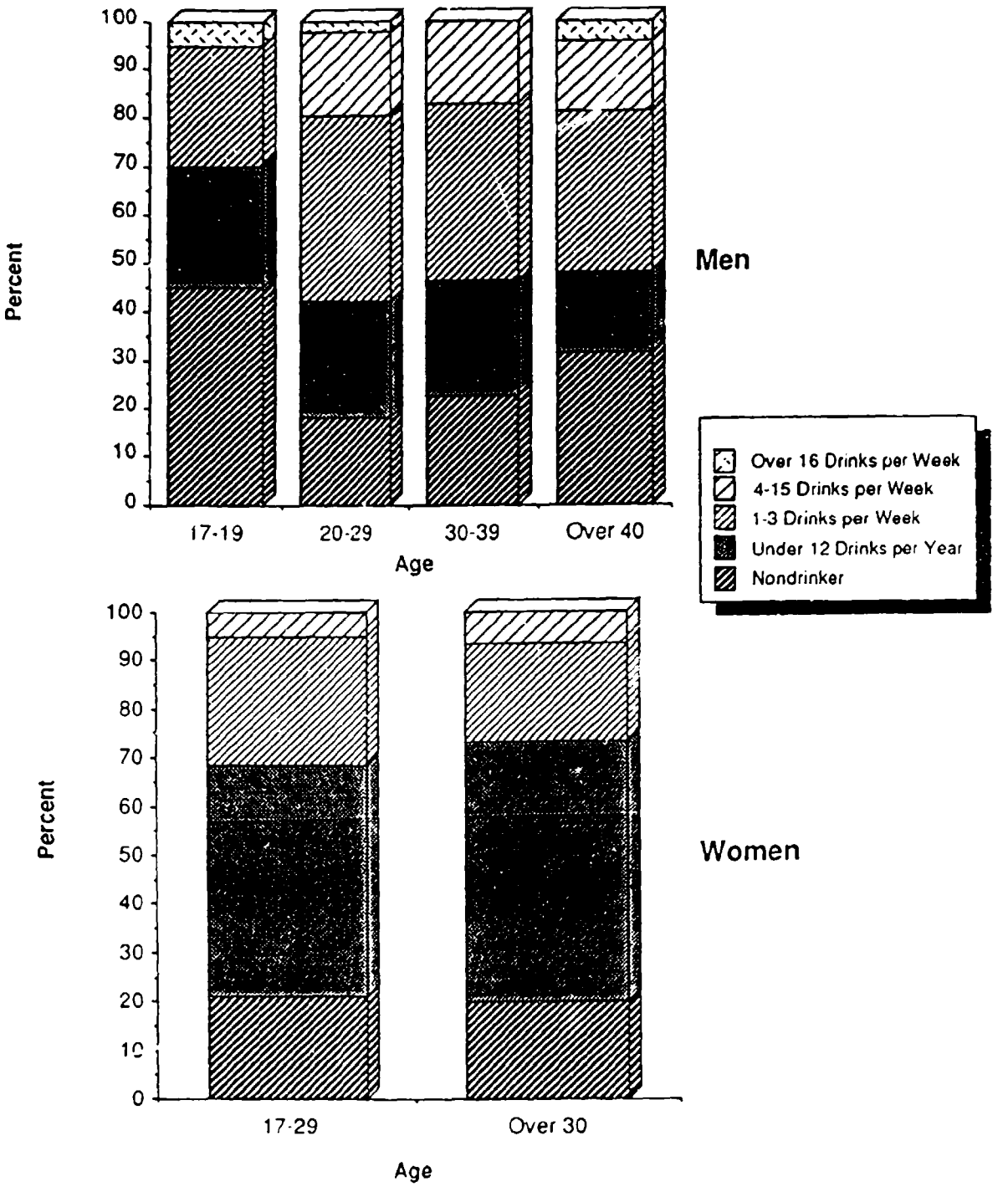


Figure 3

Percentage Distribution of Total Cholesterol Levels among Active-duty Navy Personnel by Age and Sex

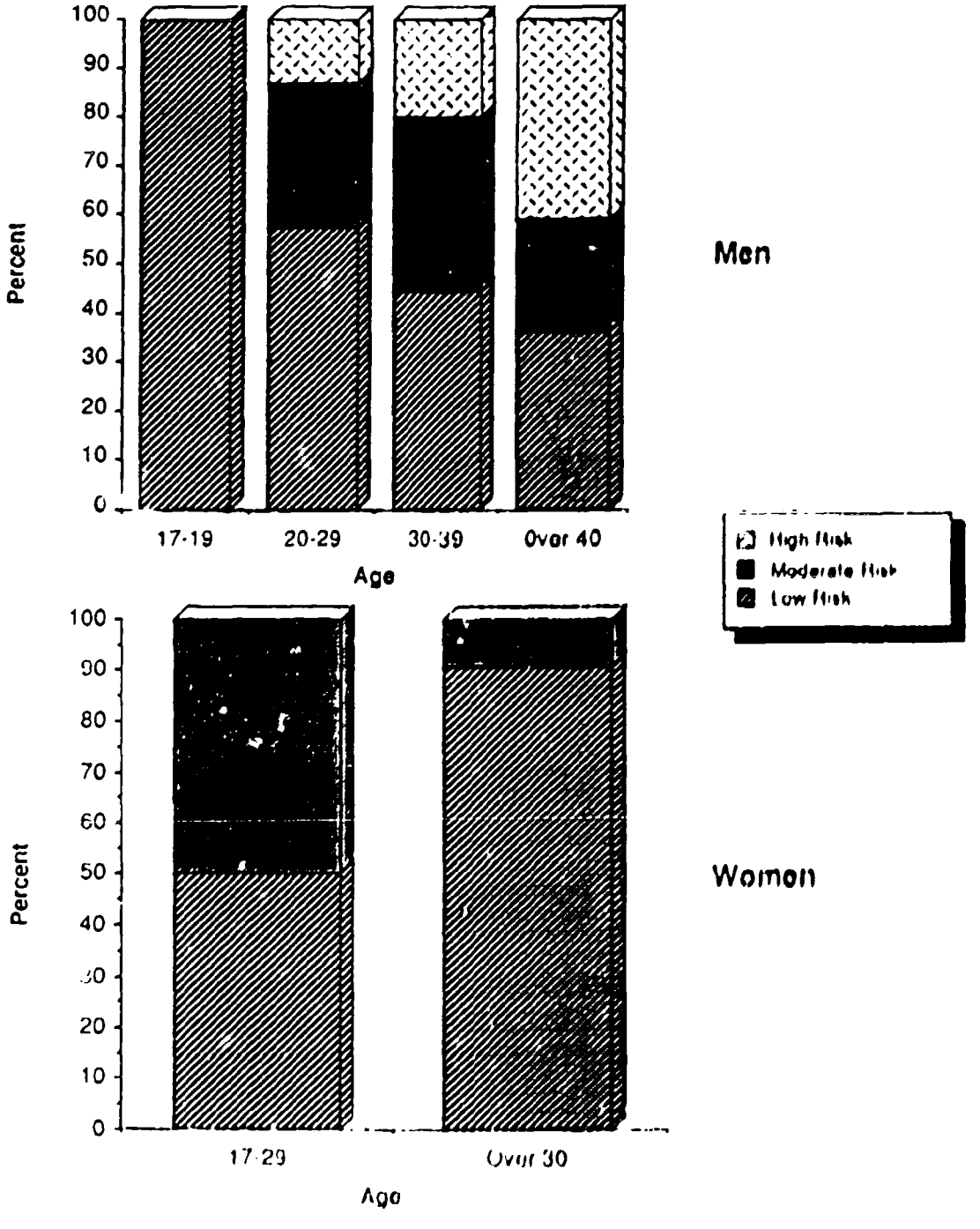
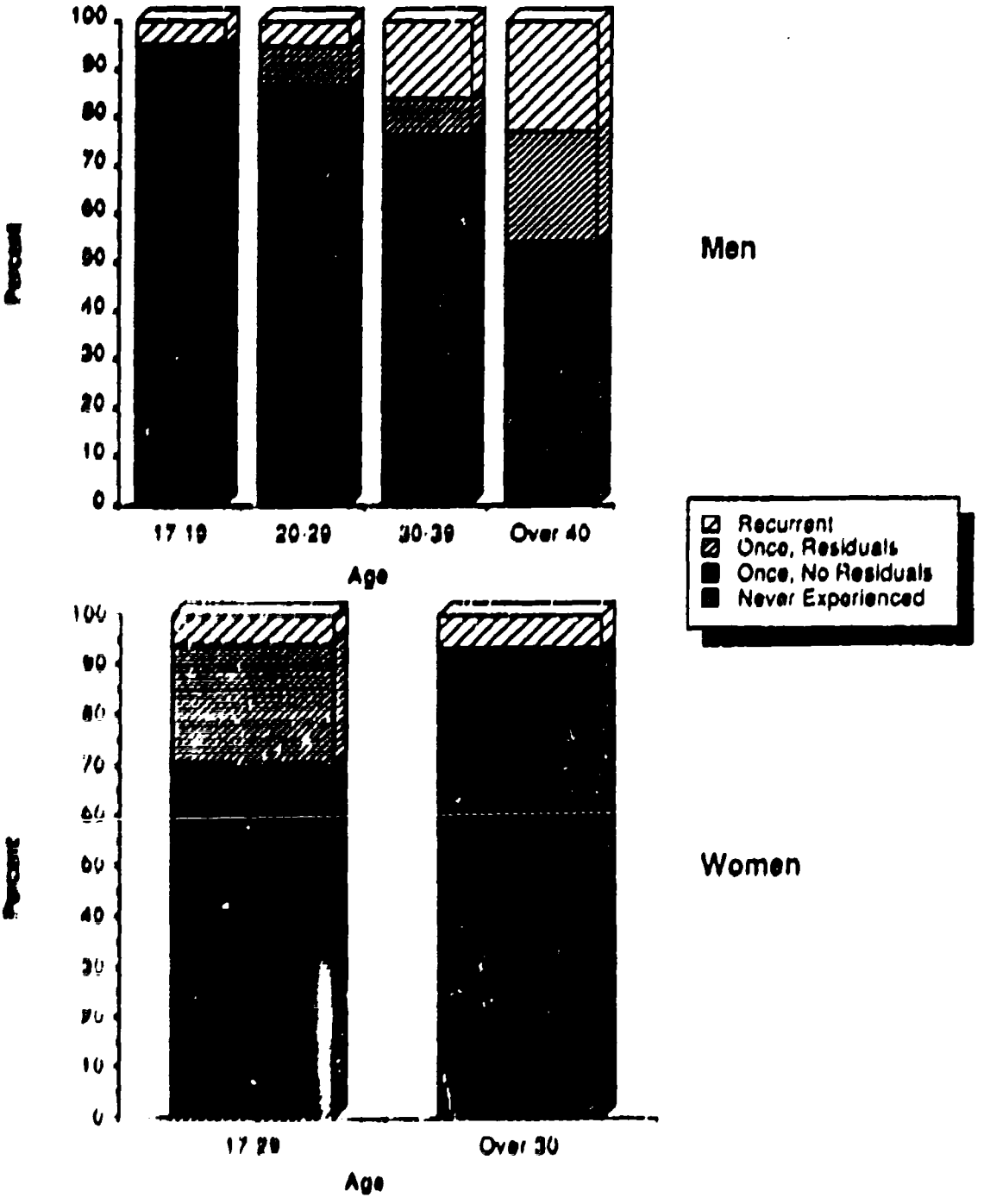


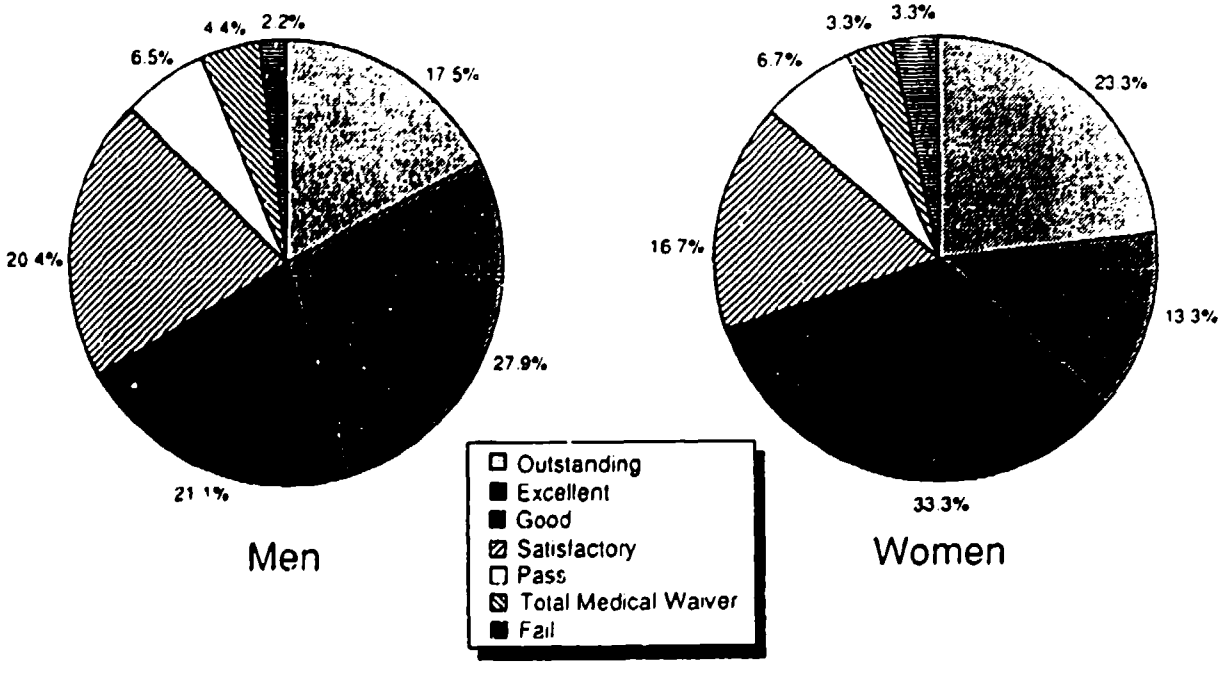
Figure 4

Percentage Distribution of Back Problems among Active-duty Navy Personnel by Age and Sex



not exercise at all. On the other hand, 23.7% of the men and 10.7% of the women claimed to exercise five or more times per week. The duration of exercise per session ranged from 15 minutes to over 120 minutes. The category of 31-60 minutes of exercise per session was the most frequently selected response category for both men (39.6%) and women (48.4%). Figure 5 presents the percentage distribution of the physical readiness test results for active-duty Navy men and women. Very few of the men and women failed the physical readiness test: 2.1% of the men and 3.3% of the women. More than 65% of the men and women were classified as good, excellent, or outstanding. Total medical waviers consisted of 4.3% of the men and 3.3% of the women. The percentages of Navy personnel who were rated as being overfat or obese were 11.1% of the men and 18.5% of the women.

Figure 5
Percentage Distribution of Physical Readiness Results among Active-duty Navy Personnel by Sex



Discussion

Results of this pilot study indicate that an instrument can be developed and used quite easily to collect health promotion data. Other findings of this study include recommendations for the rewriting of items and the redesigning of the instrument's format. Appendix B is the revised form that was designed to incorporate these recommendations. The format of the revised form places items in sections designated for the patient and medical examiner. The four patient sections include items that logically should be placed together, and several items have been clarified and a new item added (seat belt use). The item concerning one's diet has been expanded to ask for the number of servings consumed of eggs, fish, other meats, dairy products, grain products, fruits, and vegetables during a typical week. Also modified is the medical examiner's section which includes a set of specific instructions; a cover letter of explicit instructions to fill in the blood pressure and cholesterol items and to check the forms for missing data also will accompany each packet of forms mailed to the naval branch clinics.

Findings from this study differ from those reported on research conducted on trends in substance use in the four branches of the military (Ballweg & Bray, 1989; Ballweg & Li, 1991; Bray, Marsden, Herbold, & Peterson, in press; Conway, Trent, & Conway, 1989). To be specific, the percentage of male smokers in the present study (39.9%) is somewhat lower when compared with the 43.0% reported in a 1988 Navy-wide sample (Ballweg & Li, 1991). While the present sample size is smaller, the percent differential may reflect both a possible decrease in the number of young smokers entering the Navy as well as an increase in the number of older individuals who have quit smoking. The latter explanation is suggested by the increasing proportions of former smokers observed across age intervals.

The percentage distribution of smoking prevalence among 17-to-19-year-olds differs somewhat from that summarized in a 1988 Navy-wide study, which shows that 54.0% of all sampled personnel aged 17 to 19 consider themselves to be nonsmokers (Conway, Trent, & Conway, 1989). Although the present sample size is considerably smaller, the results suggest that the percentage of active-duty men who

have never smoked may be increasing. The highest percentage of individuals who have never smoked is observed among 17-to-19-year-olds: 57.9% of men and 75.0% of women. In the Navy survey cited above, it is shown that the average age of starting to smoke was 16 to 17 years and that 77% of all smokers in the Navy began before they entered active service (Conway et al., 1989). Canadian researchers report that only about 15% of their high school sample in 1985 had never smoked (Flay, Koepke, Thomson, Santi, Best, Brown, 1989). Other results, as published by the U.S. Surgeon General, indicate that smoking initiation is "relatively complete" by age 20 (U.S. Department of Health and Human Services, 1989). Also emphasized in the U.S. Surgeon General's report as well as in other reviews of the effectiveness of smoking prevention programs (for example, see Flay, 1985) is the promising conclusion that reductions in smoking onset percentages have been achieved among adolescents. The trend, therefore, seems to point toward a decrease in the number of smokers who enter the Navy, a finding that will be re-evaluated in the next phase of this research to be conducted on a larger sample.

However, the military, and especially the Navy, continues to have higher percentages of smokers than reported in the civilian sector, approximately 40% among Navy personnel as contrasted with slightly more than 27% among civilians (Ballweg & Bray, 1989). A health promotion goal has been set to achieve a smoke-free Navy by the year 2000, which indicates that considerable work will have to be initiated and accomplished. Although this goal of attaining a smoke-free Navy by the year 2000 may be somewhat unrealistic, efforts should be expanded in support of the continuing downward trend in the percentage of smokers in the Navy.

Another goal of the Department of Defense and the Navy is to reduce the number of alcohol abusers on active duty. Results of this study show that the percentage of personnel who drink is almost 77.0%. This percentage represents a relatively large difference from the percentage (84.2%) of personnel who reported that they used alcohol in 1988 (Ballweg & Li, 1991). The trend across the years, as evidenced from survey results compiled in 1982, 1985, and 1988, is toward a decline in the proportion of alcohol users and an increase in the percentage of nondrinkers. Results of the

present study show increasing percentages of nondrinkers after the age of 20, which corresponds with similar percentage increases reported on samples of both military and civilian respondents in a 1985 survey (Ballweg & Li, 1989). In another study of alcohol use among military men, the proportion of men who reported heavy drinking has decreased from 20.8% in 1980 to 17.0% in 1990 (Bray, Marsden, Herbold, & Peterson, in press).

In comparison with results reported on a larger Navy sample, the current mean cholesterol levels for men (206.3 mg/dL) are somewhat lower than in the larger sample (209.0) and 182.6 versus 200.0 for women (Trent, 1989). These values are somewhat elevated and should be lowered, in accordance with another goal of the Navy's health promotion program. A goal to reduce the number of back injuries also has been promulgated, the achievement of which will have an impact on decreasing the high costs associated with noneffective days, hospitalizations, and compensation. Marcinik (1981) had recommended that strength conditioning programs be incorporated into recruit training to prepare personnel for the physical demands of shipboard work. A research project has been initiated at a recruit training center that was designed to evaluate the effectiveness of the Navy's Healthy Back Program in reducing back problems throughout a one-year, follow-up period. Comparisons of the incidence of subsequent back problems will be conducted between individuals who had participated in the program and those who had not.

Overall, results of this study are consistent with other research indicating that progress is continuing to be made in the direction of improved health and physical readiness among Navy men and women. In the next phase of this research and in future tracking surveillances, one of the objectives of monitoring Navy-wide health promotion data will be to identify the areas where progress should be enhanced and to target populations that need intervention programs. Results of the present effort suggest that smoking cessation efforts will have to be expanded if the goal of a smoke-free Navy is to be achieved even beyond the projected date of 2000.

The next phase of this study is to assess the effectiveness of the revised tracking form on a larger sample and to examine the feasibility of developing an electronic

health promotion tracking system that can be implemented Navy wide. Such a system could be used to obtain all of the requested information by having individuals and medical examiners respond directly onto a computer disk at a terminal. When individuals arrive for a physical examination, they would be asked to complete the questions presented on a terminal screen; additional items would be completed by the medical examiner. The disk with this information then could be forwarded to the appropriate health promotion monitor. For facilities that do not have computer terminal capabilities, hard copies of the form could be distributed for completion. Eventually, electronic health promotion tracking records may be created for all naval personnel at the time of service entry, to be updated as physical examinations are performed or at times when changes in health status occur. Through such endeavors, the Navy would be able to determine how well naval personnel are doing in terms of meeting health promotion objectives and to identify specific intervention programs that need to be expanded or initiated.

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Tracking Health Promotion Data

INSTRUCTIONS: Please darken the circle corresponding to the answer that best describes the individual's status.
USE A DARK LEAD PENCIL--DO NOT USE INK--and be sure to fill in the circles completely.

/SOCIAL SECURITY NUMBER

YEARS OF EDUCATION

AGE

TOTAL CHOLESTEROL mg/dL

HDL CHOLESTEROL mg/dL

TRIGLYCERIDES mg/dL

RANK/ PAY GRADE
- E-1
- E-2
- E-3
- E-4
- E-5
- E-6
- E-7
- E-8
- E-9
- W-1
- W-2
- W-3
- W-4
- O-1
- O-2
- O-3
- O-4
- O-5
- O-6
- O-7
- O-8
- O-9
- O-10

OVERALL PRT CLASSIFICATION SCORE (As of Last PRT)
- Outstanding
- Excellent
- Good
- Satisfactory
- Fail
- Pass
- Total medical waiver

RACE/ ETHNICITY
- Caucasian
- Black
- Hispanic
- American Indian/ Alaskan Native
- Asian
- Pacific Islander
- Filipino
- Other

MARITAL STATUS
- Never married
- Married or living as married
- Separated/ Divorced/ Widowed

WEIGHT (In lbs)

HEIGHT (in inches)

BLOOD PRESSURE
SYSTOLIC mmHg
DIASTOLIC mmHg

BLOOD PRESSURE CONTROL
- N/A
- Medication
- Diet
- Exercise
- Weight control
- Other

ALCOHOL USE
- Nondrinker
- About 12 drinks per year
- 1-3 drinks per week
- 4-15 drinks per week
- 16-35 drinks per week
- More than 36 drinks per week

Former Drinkers Only
Time Since Quitting
- Under 3 months
- 3 to 6 months
- 7 to 11 months
- 1 to 2 years
- Over 2 years

SMOKING TOBACCO USE
- Never smoked
- Former smoker
- Less than 1 pack per day
- 1-1.9 packs per day
- 2 or more packs per day

Former Smokers Only
Time Since Quitting
- Under 3 months
- 3 to 6 months
- 7 to 11 months
- 1 to 2 years
- Over 2 years

DIET

Yes	No	
○	○	Balanced
○	○	Low fat
○	○	Low sodium

EXERCISE
(Days per week) 0 1 2 3 4 5 6 7

(Minutes per Session)
- Less than 15
- 15-30 min.
- 31-60 min.
- 61-120 min.
- Over 120 min.

% BODY FAT
- Normal
- Over fat
- Obese

SMOKELESS TOBACCO USE
- Never used
- Non-user now
- Less than once per week
- 1-4 times per week
- 5-7 times per week
- 8 or more times per week

BACK PROBLEMS
- Never experienced
- Once, no residuals
- Once, residuals
- Recurrent

Present Status
- Injured
- Not injured

INJURIES DURING OFFICIAL PRT
- Not injured

Injured during:
- Curl-up
- Push-up
- Sit-reach
- 1.5 mile run
- 500 yd. swim

SEX
- Male
- Female

COMMENTS:

Signature Date

Thank You for Your Participation!

DEPARTMENT OF THE NAVY
NAVAL HEALTH RESEARCH CENTER
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NAVAL HEALTH RESEARCH CENTER
ATTENTION: ANNE HOIBERG
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PRIVACY ACT STATEMENT

1. Authority. 5USC 301 2. Purpose. Medical research information will be collected to enhance basic medical knovledge, or to develop tests, procedures, and equipment to improve the diagnosis, treatment, or prevention of illness, injury, or performance impairment. 3. Use. Medical research information will be used for statistical analysis and reports by the Departments of the Navy, Defense, and other U.S. Government agencies, provided this use is compatible with the purpose for which the information vas collected. Use of the information may be granted to non-Government agencies or individuals by the Chief, Bureau of Medicine and Surgery, in accordance with the provisions of the Freedom of Information Act. 4. Disclosure. I understand that all information contained in the Consent Statement or derived from the study described therein will be retained at the Naval Health Research Center, San Diego, and that my anonymity will be maintained. I voluntarily agree to its disclosure to agencies or individuals identified in the preceding paragraph, and I have been informed that failure to agree to such disclosure may negate the purposes for which the study is being conducted.

CONSENT STATEMENT

This research, which is part of the "Health and Physical Readiness (HAPR) Program Evaluation," will be used to help develop an effective means of collecting health promotion and physical readiness data. Your participation involves having your health care provider complete items pertaining to your current physical condition, PRT test scores, cholesterol measures, blood pressure, life-style behaviors, etc. All of the data gathered will be stored at the Naval Health Research Center and will be used for research purposes only. The data provided by the thousands of participants will not become a part of anyone's official records and will be reported in such a way that no individual can be identified.

You are asked to voluntarily participate, and ve hope that you will consent to have the requested information provided to us. There will be no direct benefits to you nor any risks or discomfort. Results of this study will help to develop a more efficient means of obtaining information. By signing this consent form, you are indicating that you understand the purpose of this study, and that you are free to withdrav your consent at any time vithout prejudice to you or your naval career. Should questions arise, please contact Anne Hoiberg, Naval Health Research Center, P.O. Box 85122, San Diego, CA 92186-5122, Autovon: 553-8461 or Commercial (619) 553-8461.

Name (please print) _____ Signature _____ Date _____

Appendix B

TRACKING HEALTH PROMOTION DATA

To the Navy Active Duty Member Receiving a Routine Physical Examination:

You are being asked to participate in a project evaluating the usefulness of a health promotion tracking form. Please read the Privacy Act and Consent Statements. If you consent to participate please: (1) print and sign your name on the lines below and (2) answer the items "For the Patient" by completely darkening the circles with a NO. 2 pencil. Thank you for your participation!

PRIVACY ACT STATEMENT

Authority. 5USC 301. 2. Purpose. Medical research information will be collected to enhance basic medical knowledge or to develop tests, procedures, and equipment to improve the diagnosis, treatment, or prevention of illness, injury, or performance impairment. 3. Use. Medical research information will be used for statistical analyses and reports by the Departments of Navy, Defense, and other U.S. Government agencies, provided this use is compatible with the purpose for which the information was collected. Use of the information may be granted to non-Government agencies or individuals by the Chief, Bureau of Medicine and Surgery, in accordance with the provisions of the Freedom of Information Act. 4. Disclosure. I understand that all information contained in the Consent Statement or derived from the study described therein will be retained at the Naval Health Research Center, San Diego, and that my anonymity will be maintained. I voluntarily agree to its disclosure to agencies or individuals identified in the preceding paragraph, and I have been informed that failure to agree to such disclosure may negate the purposes for which the study is being conducted.

CONSENT STATEMENT

This research, which is part of the "Health and Physical Readiness Program (HAPR) Evaluation," will be used to develop an effective means of collecting health promotion and physical readiness data. Your participation also involves having your medical examiner complete items pertaining to your cholesterol and blood pressure levels. All of the data gathered will be stored at the Naval Health Research Center and will be used for research purposes only. The data will not become part of anyone's official records and will be reported in such a way that no individual can be identified. You are asked to participate voluntarily, and we hope that you will consent to have the requested information provided to us. There will be no direct benefits to you nor any risks or discomfort. By signing the form, you are indicating that you understand the purpose of this study, and that you are free to withdraw your consent at any time without prejudice to you or your naval career. Should questions arise, please contact Susan Woodruff, Naval Health Research Center, P.O. Box 85122, San Diego, CA 92186-5122. Autovon 553-8466 or Commercial (619) 553-8466.

Name (please print) _____ Signature _____ Date _____

For the Patient

SOCIAL SECURITY NUMBER

YEARS OF EDUCATION

AGE

RANK/ PAY GRADE
(1) E 1 (2) E 2 (3) E 3 (4) E 4 (5) E 5 (6) E 6 (7) E 7 (8) E 8 (9) E 9 (10) W 1 (11) W 2 (12) W 3 (13) W 4 (14) O 1 (15) O 2 (16) O 3 (17) O 4 (18) O 5 (19) O 6 (20) O 7 (21) O 8 (22) O 9 (23) O 10

RACE/ ETHNICITY
(1) Caucasian
(2) Black
(3) Hispanic
(4) American Indian/ Alaskan Native
(5) Asian
(6) Pacific Islander
(7) Filipino
(8) Other

SEX
(1) Male (2) Female

MARITAL STATUS
(0) Never married
(1) Married or living as married
(2) Separated/ Divorced/ Widowed

Is this visit for a ...
(1) Routine physical examination
(2) Follow-up to routine physical examination
(3) Other _____

EATING HABITS DURING THE PAST WEEK

How many times during the past week did you eat:

	Never or less than 1 time a week	1-2 times	3-4 times	5-6 times	Once a day	Twice a day	3 or more times a day
Breakfast							
Eggs							
Fish							
Low-fat meats							
High-fat meats							
Fruits							
Vegetables							
Salt (added to food)							
High fiber (grains, cereal)							
Low-fat dairy products							
High-fat dairy products							
Too much food (overeating)							

SEAT BELT USAGE

How much do you wear your seatbelt?
(1) 10% of the time or less
(2) 11 - 50% of the time
(3) 51 - 75% of the time
(4) 76% - 95% of the time
(5) 96% - 100% of the time

PRESENT BACK STATUS

(0) Currently have no back pain
(1) Currently have back pain

BACK PROBLEMS

(0) Never experienced
(1) Once but no further pain
(2) Once with lingering pain
(3) Two or more separate back problems

Patient:
Please continue on other side →

For the Patient (Continued)

SMOKING TOBACCO USE

- 0 Never smoked (<100 cigarettes ever)
- 1 Former smoker
- 2 Less than 1 pack per day
- 3 1 - 1.9 packs per day
- 4 2 or more packs per day

Former Smokers Only
Time Since Quitting

- 0 Less than 3 months
- 2 3 to 6 months
- 1 7 to 11 months
- 4 1 to 2 years
- 3 More than 2 years

SMOKELESS TOBACCO USE

- 0 Never used
- 1 Former user
- 2 Less than once a month
- 3 1-4 times per month
- 4 2-6 times per week
- 5 Once a day
- 6 2-3 times per day
- 7 4 or more times per day

ALCOHOL USE

- 0 Nondrinker
- 1 About 12 drinks per year
- 2 2-3 drinks per month
- 3 1-3 drinks per week
- 4 4-15 drinks per week
- 5 16-35 drinks per week
- 6 More than 36 drinks per week

Former Drinkers Only
Time Since Quitting

- 0 Less than 3 months
- 2 3 to 6 months
- 1 7 to 11 months
- 4 1 to 2 years
- 3 More than 2 years

Exercise

No. of times per week
0 1 2 3 4 5 6 7

Average time spent per exercise session

- 0 None
- 1 Less than 15 min.
- 2 15-30 min
- 3 31-60 min
- 4 61-120 min
- 5 Over 120 min

OVERALL PRT CLASSIFICATION SCORE
(From last PRT)

- 1 Outstanding
- 2 Excellent
- 3 Good
- 4 Satisfactory
- 5 Fail
- 6 Pass
- 7 Total medical waiver

BODY FAT
(From last PRT)

- 1 Normal
- 2 Over fat
- 3 Obese

ANY INJURIES DURING OFFICIAL PRT?

- 0 Never injured
- Injured during
- 1 Curl-up
- 2 Push-up
- 3 Sit-reach
- 4 1.5 mile run
- 5 500 yd swim

STOP HERE!

THANK YOU FOR COMPLETING THIS SURVEY!

For the Medical Examiner

To the Medical Examiner:

- For the next few weeks, have every Navy active duty member receiving a routine physical examination complete the consent form and the "Patient" section using a No. 2 pencil. Please check the patient-provided information for completeness.
- Fill in this "Medical Examiner" section yourself using a No. 2 pencil. If necessary, please retain the Form and complete it when laboratory results are received.
- Return completed Forms in the provided envelopes to: Naval Health Research Center, P.O. Box 85122, Code 240, San Diego, CA 92186-5122.
- Your assistance is crucial and greatly appreciated.

DEPARTMENT OF THE NAVY
NAVAL HEALTH RESEARCH CENTER
P.O. BOX 85122
SAN DIEGO, CA 92186-5122

POC: Susan Woodruff AV 553-8466

WEIGHT in lbs

HEIGHT in inches

BLOOD PRESSURE
SYSTOLIC mmHg
DIASTOLIC mmHg

TOTAL CHOLESTEROL mm/dL

HDL CHOLESTEROL mm/dL

TRIGLYCERIDES mm/dL

BODY FAT

- 1 Normal
- 2 Over fat
- 3 Obese

BLOOD PRESSURE CONTROL

- 0 N/A
- 1 Medication
- 2 Diet
- 3 Exercise
- 4 Weight control
- 5 Other

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13. ABSTRACT *(Maximum 200 words)*

The purpose of this pilot study was (a) to create a machine-scannable instrument to be used to collect health promotion information on Navy personnel and (b) to evaluate the effectiveness of the form in terms of understandability and efficiency. Although the overall response rate per item was quite high, problem items included those pertaining to respondents' diet, back injuries, blood pressure levels, and cholesterol measures. Other results identified decreases in tobacco and alcohol use from findings of previous research. Cholesterol levels and percentages of back problems increased with age. In general, progress is being made toward improved health and physical readiness among Navy personnel. The next phase is to examine the effectiveness of the revised tracking form on a larger sample and to examine the feasibility of developing an electronic health promotion tracking system that can be implemented Navy wide.

14. SUBJECT TERMS				15. NUMBER OF PAGES
Health promotion	Blood pressure	Exercise	Surveillance	23
Tobacco use	Diet	Cholesterol	Alcohol consumption	16. PRICE CODE
Back injuries				

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