



## Navy and Marine Corps Public Health Center

### Health Promotion and Preventive Medicine

*Fleet and Marine Corps Health Risk Appraisal Summary Report  
July 2007-June 2008*

## Annual Report

The Fleet and Marine Corps Health Risk Appraisal is a 21-question self-assessment of many of the most common health risks. It supports preventive health screening and counseling by healthcare providers during the annual Periodic Health Assessment, provides individual members with credible sources of health information, provides health educators with the data to plan and implement interventions based on prevalence of specific issues, and provides commanding officers with a snapshot of their unit profiles for each of the health risks.

The tool is web-based, but there is also a stand-alone Excel version that can be used on ships that have poor Internet connectivity. Completion of the assessment only requires a couple of minutes and provides personalized reports to each individual. A total of 114,926 individuals completed assessments during this 12-month period. Fifty-one percent were from Navy, 29% from Navy Reservists, 13% from Marines, and 7% from Marine Reservists. Eighty-two percent of the assessments were completed by enlisted members.

Significantly, more Navy members compared to Marines were overweight or obese according to the standards for healthy weight established by the Centers for Disease Control and Prevention. Overall, the three leading health risks (unhealthy ratings) were the same for all four service components and included not flossing, low fruit and vegetable intake, and work stress. Other significant areas of concern included smoking (26.2%), heavy drinking (27.0%), lack of personal support (26.4%), and lack of aerobic activity (26.3%). Overall, 33.7% of members were scored as "high-risk", 39.1% were scored as "medium-risk", and 27.3% were scored as "low-risk". Younger males were significantly more likely to have higher risk scores.

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## **Background**

Health Risk Assessments (HRAs) became widely used, both in military and civilian settings, beginning in the mid-1980s. HRAs are tools that can educate beneficiaries, assist healthcare professionals in the planning of interventions, and inform decision makers of the overall health status of their population. Different versions of HRAs can be tailored to address a range of conditions and risk behaviors among specific population subgroups.

The HRA used by the Navy and Marine Corps is a 21-question self-reported, web-based assessment tool that assesses lifestyle behaviors associated with common health conditions among adults. Surface Forces Pacific (SURFPAC) originally requested that the Navy and Marine Corps Public Health Center (NMCPHC) design a brief web-based tool to help them identify the most prevalent behaviors associated with unhealthy outcomes among their active duty population, but the question set is generally applicable to most healthy adults.

## **Methods**

### *Survey Design*

The HRA seeks to identify healthy lifestyle choices and various levels of risk that jeopardize health, either from disease or injury. The question set for the Fleet and Marine Corps HRA incorporated questions from other tools such as the Alcohol Use Disorders Identification Test (AUDIT), the DoD Survey of Health Related Behaviors Among Military Personnel, and the National Health and Nutrition Examination Survey (NHANES); recommendations from professional organizations; and expert opinion based on epidemiologic data. The Fleet and Marine Corps HRA has one question on the self-assessment of personal health in general, followed by 20 questions that fall within 10 topic areas (See Appendix A). The general self-assessment question asks whether the individual feels they are generally in good health. The remaining questions assess health behaviors within the 10 categories with one to three questions each, providing a snapshot of leading health indicators.

The categories include:

1. tobacco use
2. alcohol use
3. safety
4. stress management
5. sexual health
6. physical activity
7. nutrition
8. supplement use
9. dental health
10. sleep problems

### Data Collection and Analyses

Data from 117,915 surveys were collected for the most recent 12-month period, from July 1, 2007 through June 30, 2008. The data were analyzed by the Epidemiology Data Center (EDC) at the Navy and Marine Corps Public Health Center (NMCPHC). Surveys were excluded from the analysis for following the reasons:

- a. Records with blank fields were considered incomplete. Blank fields indicate that participants began but did not submit their HRA assessments for processing. There were a total of 2,057 incomplete records.
- b. Surveys completed by service members other than the Navy and Marine Corps active duty and reserve members were also excluded from this analysis. The removed records consisted of assessments completed by Army Active Duty/Reserves (220), Air Force Active Duty/Reserves (485), Coast Guard Active Duty/Reserves (91), Civilian Mariners (96), and Civilians (40).
- c. A total of 114,929 assessments remained in the analysis.

All analyses utilized one of two measures: 1) 'healthy' or 'unhealthy' risk ratings or 2) a risk score. In the first case each of the 20 HRA questions, with responses ranging from a-f, were categorized as "healthy" or "unhealthy" according to the standards listed in Appendix B.

Each question was assigned a score of '1' for an unhealthy response and a '0' for a healthy response. Risk scores were calculated for each of the ten categories listed above. Scoring "unhealthy" on any individual question within a category resulted in an overall "unhealthy" rating for that category. The risk scores ranged from 0-10 and were categorized into risk levels of low, medium, and high. .

- 0-2 risk categories = low risk
- 3-4 risk categories = medium risk
- 5 or more risk categories = high risk

Descriptive analyses, frequencies and percentages were used to describe survey respondents. The *t* test and Tukey's test (a nonparametric ANOVA test) were used to compare the mean risk scores with various demographic variables.

Step-wise logistic regression was used to examine the relationship between physical activity levels of respondents and their perception of health using SAS® software (Version 9.1.3 SAS Institute, Inc., Cary, North Carolina)

The HRA collects the following demographic variables: age, gender, race, rank and service. The demographic variable of age was categorized using ranges of 17-19, 20-29, 30-39, 40-49, and 50 and over. Gender was categorized as male or female. Race was categorized as Caucasian, African American, Asian and Pacific Islander, Hispanic and "other". The "other" group is comprised of American Indians, Native Alaskans and those selecting the other category. Rank was categorized by enlisted, warrant, and officer grades. Mean risk by rank grouped enlisted service members into groups E1-E5 and E6-E9, grouped officers as O1-O3 and O4-O9, and grouped all warrant officers together (W1-W5).

Another variable that was collected was Body Mass Index (BMI), which is categorized as “healthy” (<25), “overweight” (25-29.5), or “obese” (30 and greater). BMI values that exceed healthy levels have been shown in research studies to increase the likelihood of multiple diseases and health problems, increasing in severity as BMI levels increase.

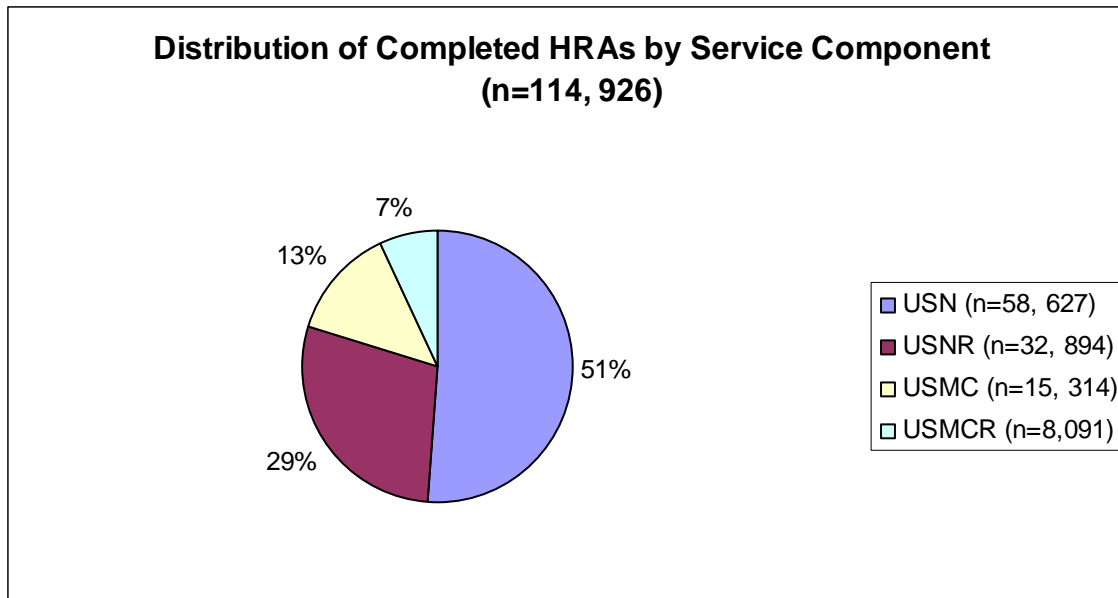
Finally, the mean risk of each variable (gender, age, rank, and race) was explored.

## **Results**

### **Demographic Analysis**

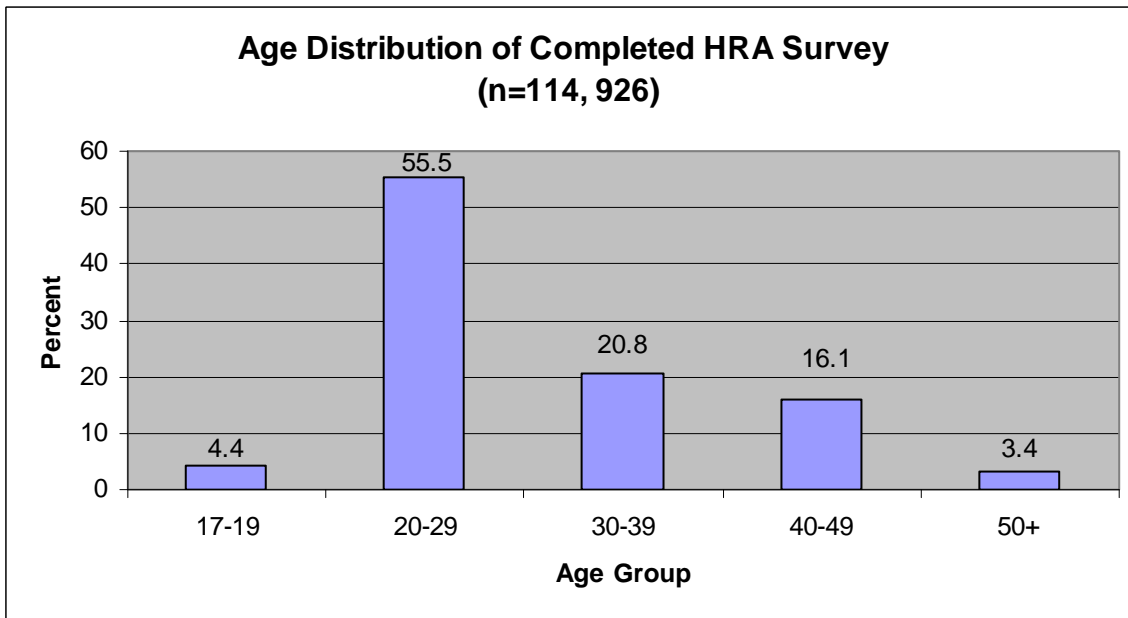
There were 117,915 surveys completed for the 2008 HRA, of which 114,926 completed surveys by United States Navy (USN), United States Navy Reserve (USNR), United States Marine Corps (USMC), or United States Marine Corps Reserve (USMCR) members were included in the analysis. Surveys completed by other services (Army, Air Force, Coast Guard, civilian Mariners, and civilians) represented 0.8% of all completed surveys. Descriptive analyses of service demographics showed that the majority (51%) of survey respondents were active duty Navy service members. Navy Reserves accounted for 29% of the completed surveys, while the remaining surveys (20%) were submitted by Active Duty and Reserves Marines (Figure 1).

**Figure 1 : Distribution of Completed HRAs**

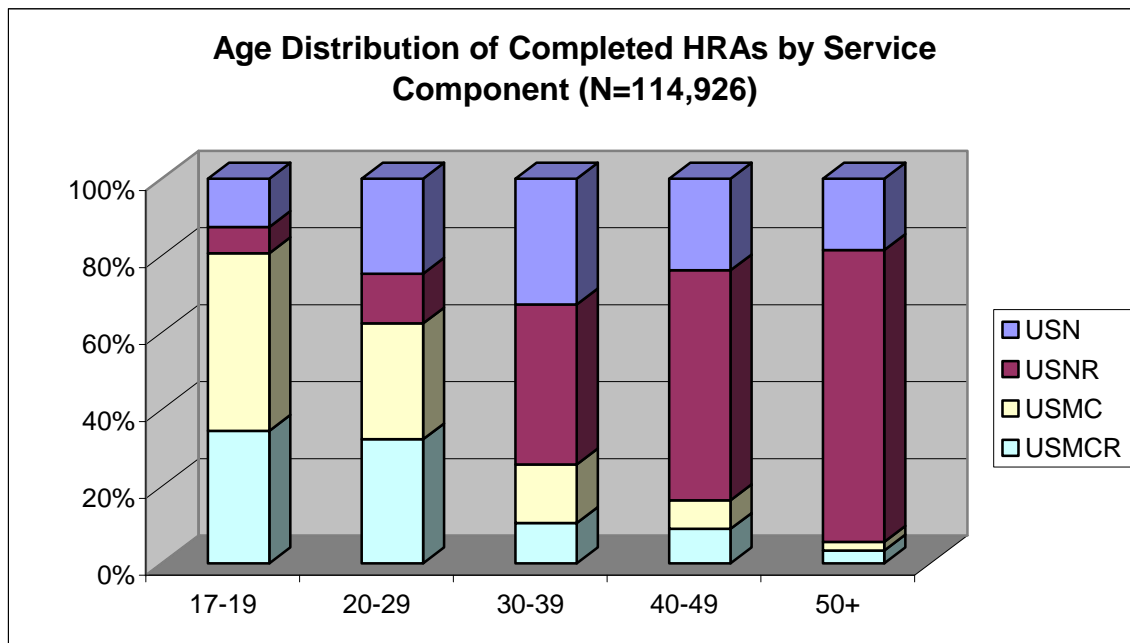


Age distribution of survey respondents indicated that over 55% of the respondents were in the 20-29 year old age group (Figure 2). Overall, Navy service member respondents were older than the Marines survey respondents, and Navy Reservists were significantly older than the other groups (Figure 3). The mean age of service member respondents was USN=30.2 years of age (95% CI: 30.1-30.3); USNR=36.5 years of age (95% CI: 36.4-36.6); USMC=25.2 years of age (95% CI: 25.1-25.3); and USMCR=25.0 years of age (95% CI: 24.9-25.1).

**Figure 2: Age Distribution of Completed HRAs**



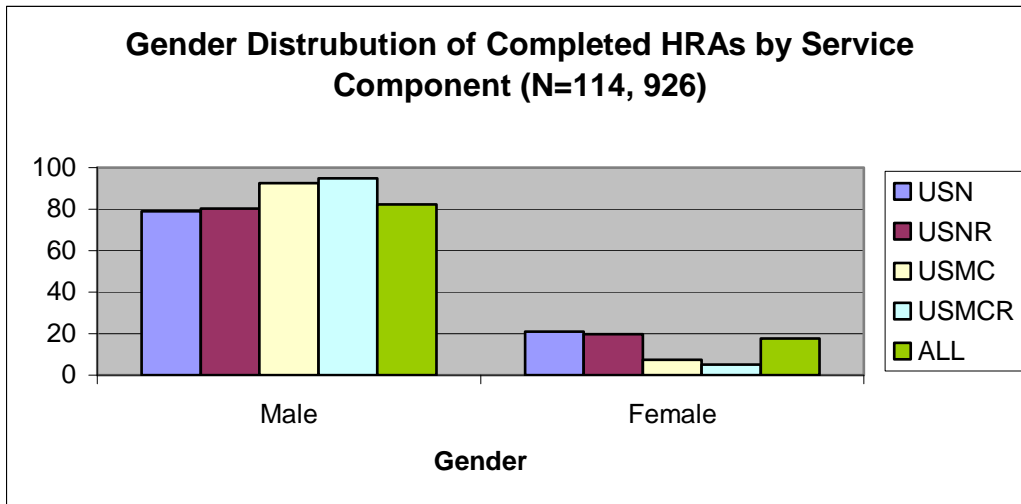
**Figure 3: Age Distribution of Completed HRAs**





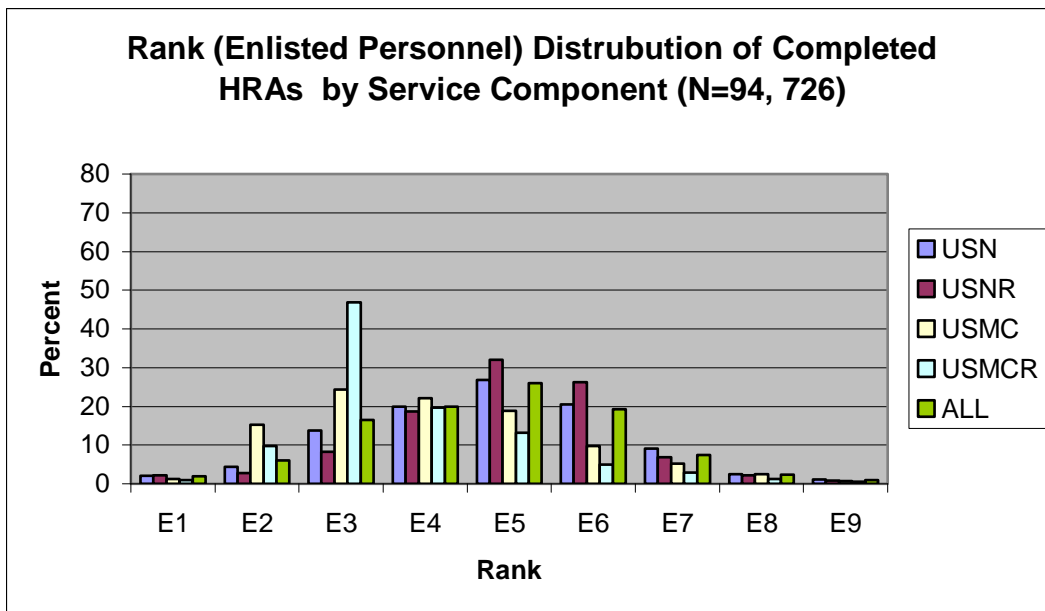
With respect to gender, more males completed the HRA, and the proportion reflects the male/female ratio of military service members. The gender difference was especially evident in the Marine Corps service components (USMC and USMCR), with less than 10% of the HRAs completed by females.

**Figure 4: Gender Distribution of Completed HRAs**

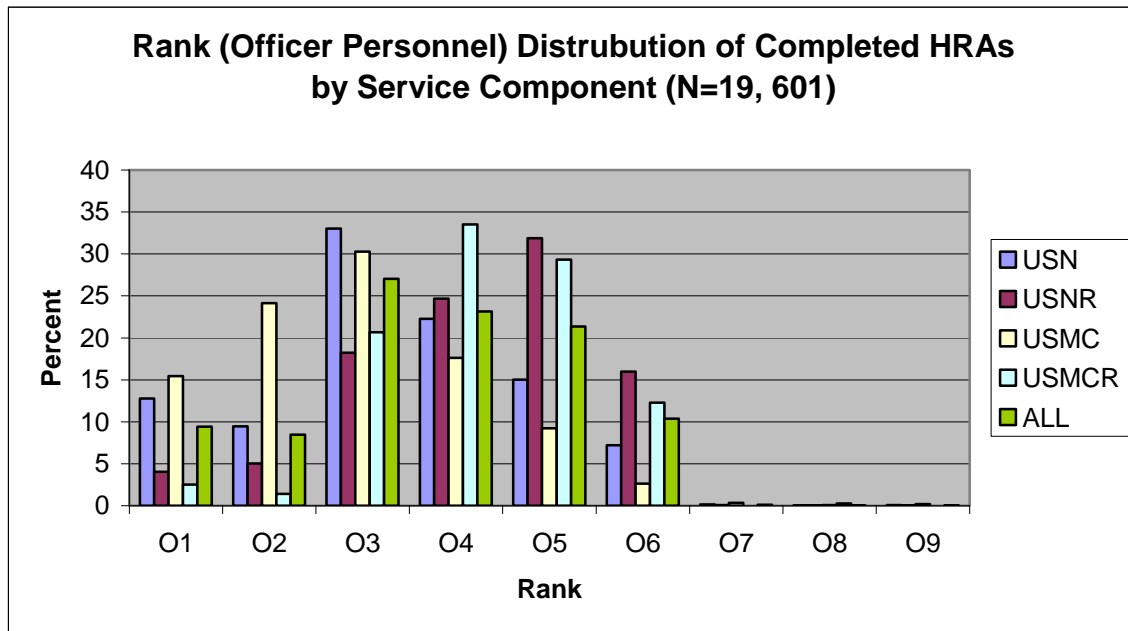


Distribution by rank indicated that 82.4% of surveys were completed by enlisted members, 17.1% by officers, and less than 0.5% by warrant officers. Figures 5-7 display the distribution of respondents' rank by service. Among enlisted members, Marines tended to be of lower rank than Navy members. Among officers there was little difference, but active duty officers tended to be of lower rank than reserve component officers. Among warrant officers, Marines tended to be of lower rank.

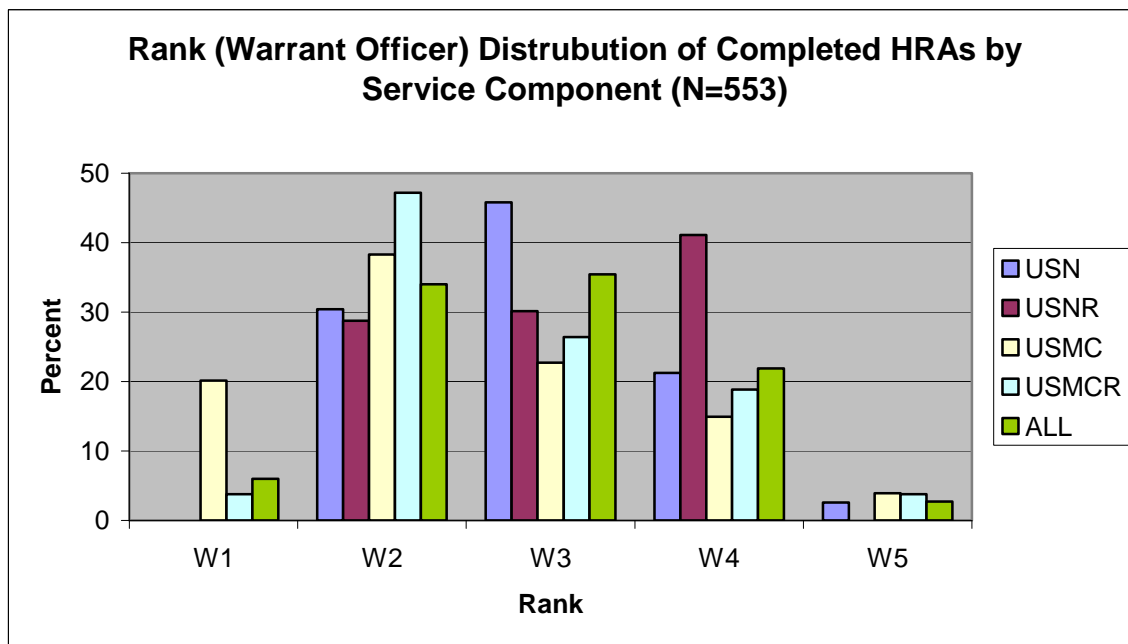
**Figure 5: Rank Distribution, Enlisted**



**Figure 6: Rank Distribution, Officer**

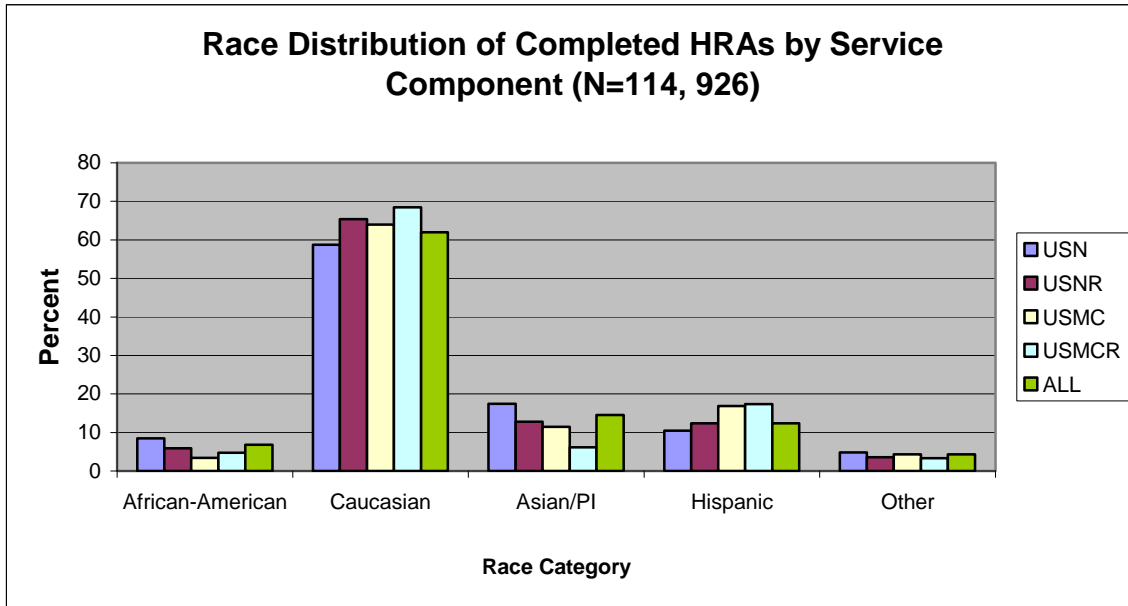


**Figure 7: Rank Distribution, Warrant Officer**



Race varied slightly between service components, but across services, survey respondents were predominantly Caucasian, (60%), (figure 8).

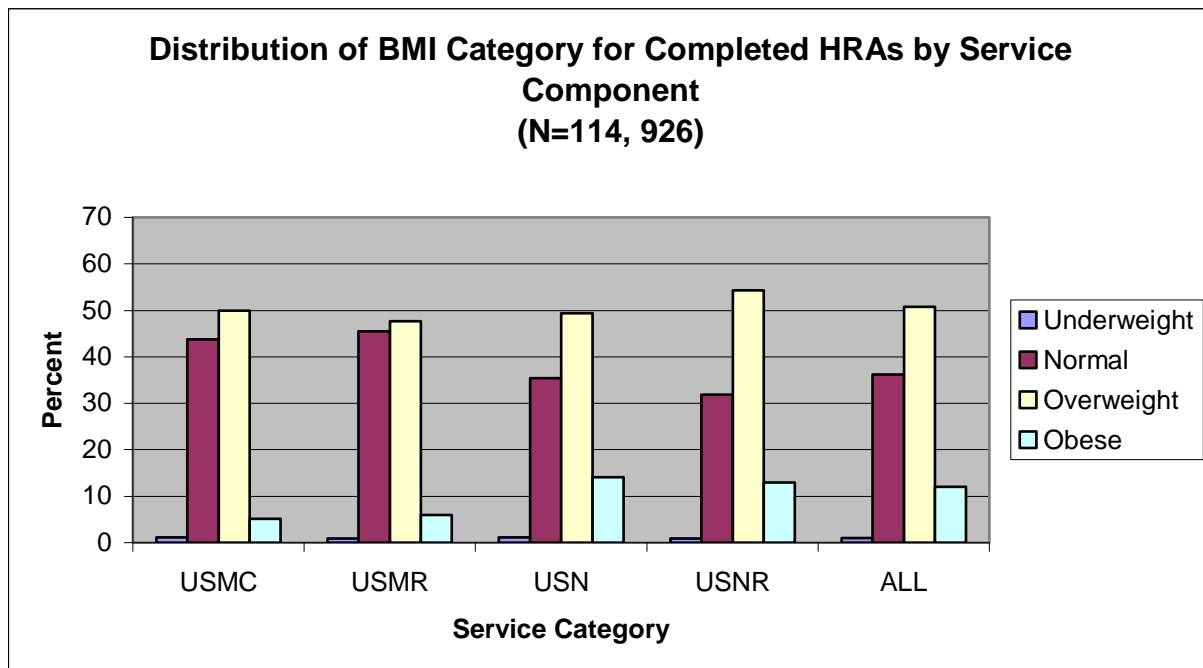
**Figure 8: Race Distribution**



HRA Completion Rate and Risk Factors

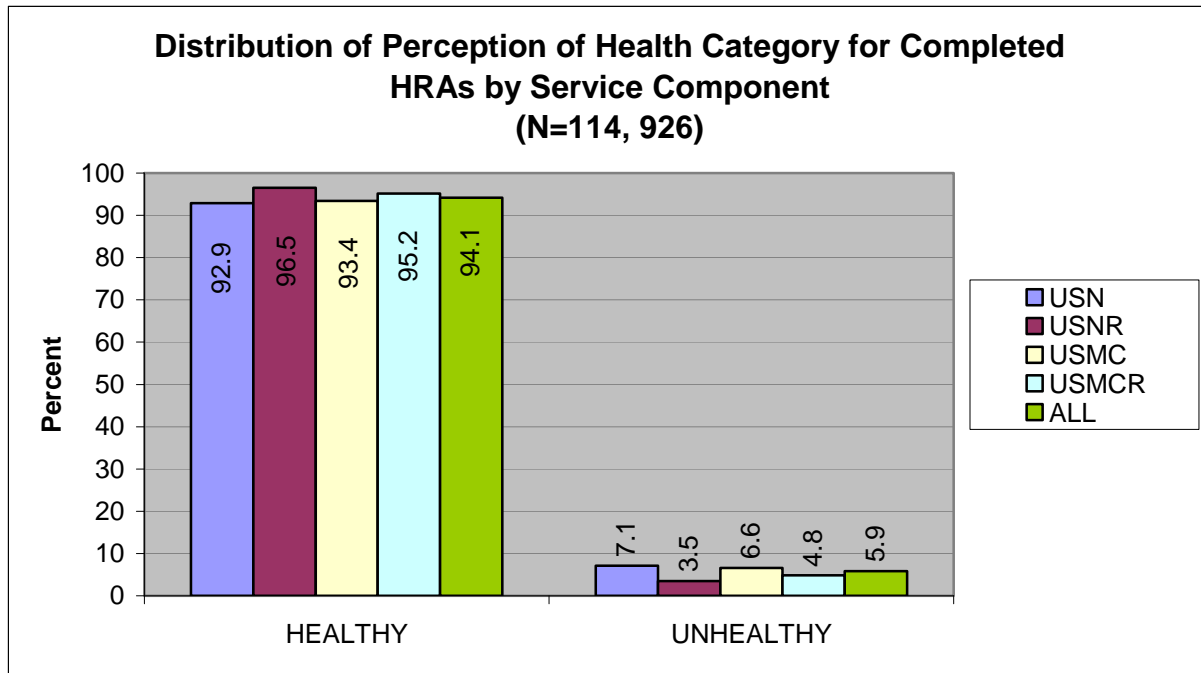
Risk factors, health beliefs, and behaviors among the four service components were examined. The data indicated that, in general, Navy personnel were significantly more likely than Marines to be classified as either overweight or obese (Figure 9). Usually BMI correlates well with the amount of body fat; however, some individuals such as athletes may have BMIs that identify them as being overweight even though they do not have excess body fat. Therefore, these data should not necessarily lead to the conclusion that all individuals exceeding healthy BMI levels are either overweight or obese.

**Figure 9: Distribution by BMI**



In contrast to the 62.7% of service members classified as overweight and obese, 94% of all members rated their “health in general” as either good or excellent (Figure 10). Typically, perception of one’s state of health is fairly accurate. However, perception of good health may not correspond closely with reported risk behaviors.

**Figure 10: Distribution by Health Perception**

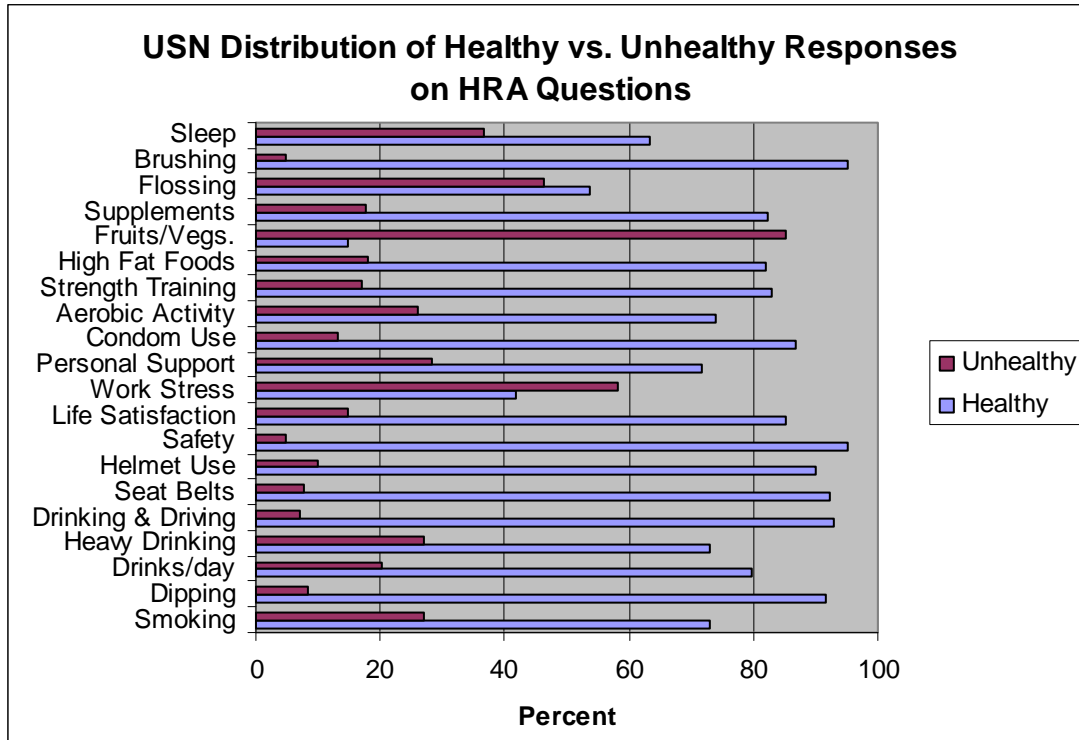


As shown in Appendix B, each HRA question was classified as ‘healthy’ or ‘unhealthy’ based on responses to the question.

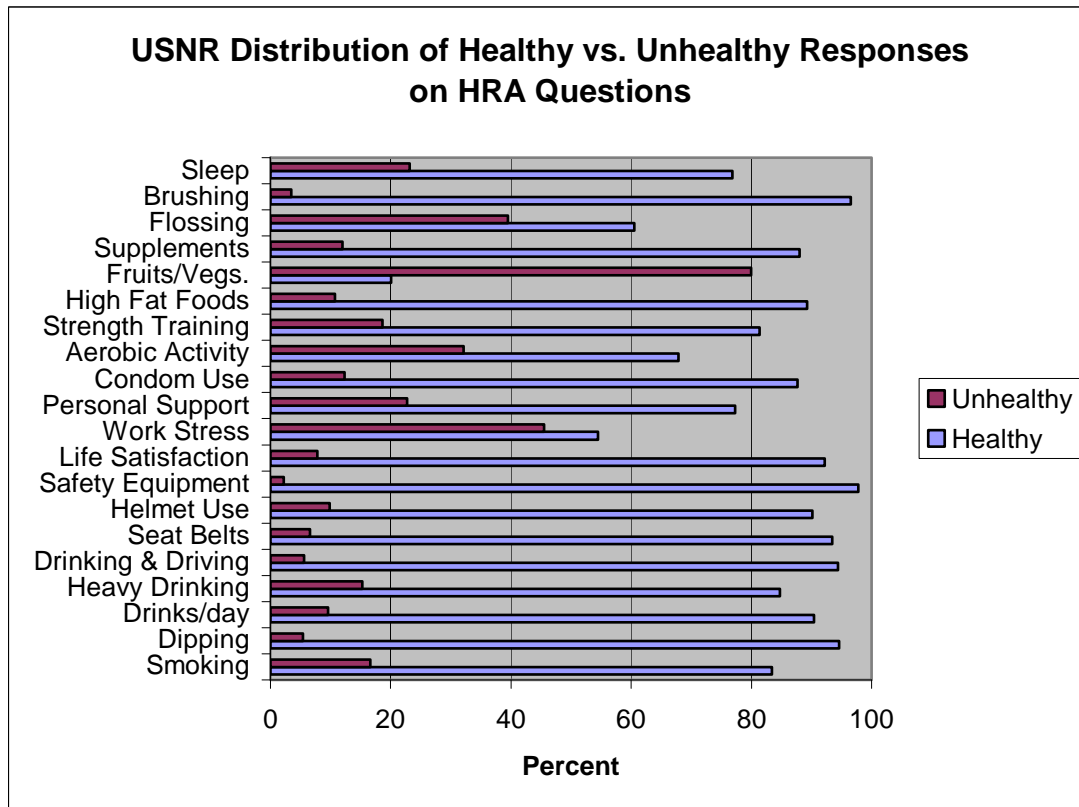
The next four graphs (Figures 11-14) display the results of these questions by service component. Overall, the three leading health risks (unhealthy ratings) were the same for all four service components and included not flossing, low fruit and vegetable intake, and work stress.

Figures 11 & 12 show that both the USN and USNR followed similar trends, based on reported risks. However, active duty Navy members tended to report unhealthy factors more often than Navy Reservists for many risk factors including not getting enough restful sleep (10% higher), flossing (7% lower), eating more high-fat foods (7% higher), reporting lower life satisfaction (7%), having more episodes of heavy drinking (12% higher), exceeding the healthy number of alcoholic drinks per day (11% higher), and smoking 10% higher).

**Figure 11: Healthy v. Unhealthy Responses, USN**

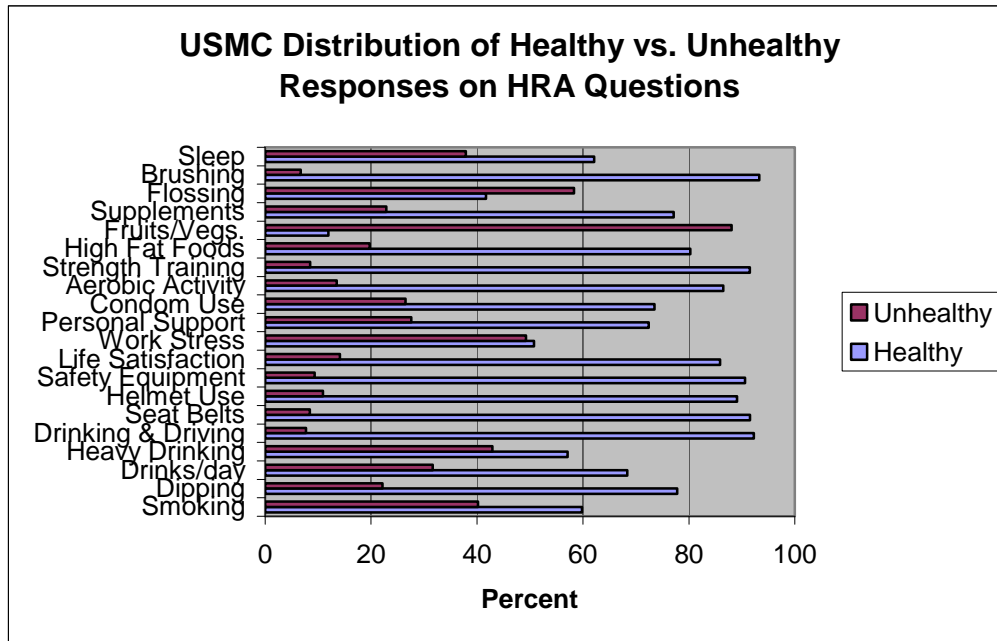


**Figure 12: Healthy v. Unhealthy Responses, USNR**

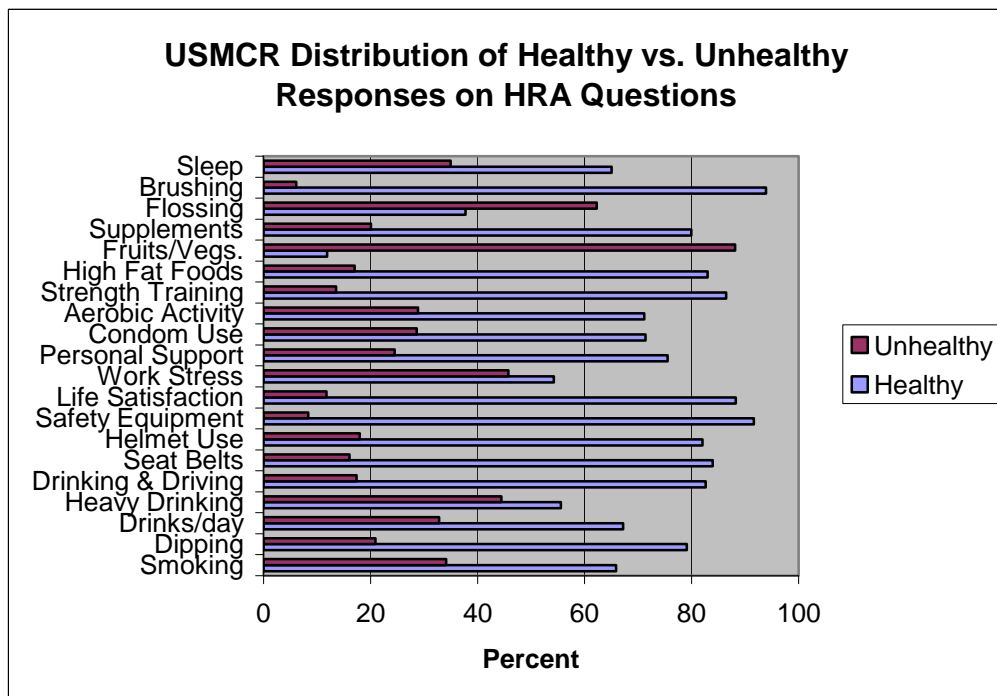


Compared to Navy members, Marines tended to report lower levels of dental flossing, higher levels of strength training, lower levels of condom use, less use of safety equipment, heavier drinking, and higher rates of tobacco use. Figures 13 & 14 show that there was less variation between Marine components, but compared to active duty members, USMCR members were less likely to report regular aerobic activity, were less likely to use helmets or seat belts, were more likely to drive after drinking, but reported lower rates of smoking.

**Figure 13: Healthy v. Unhealthy Responses, USMC**

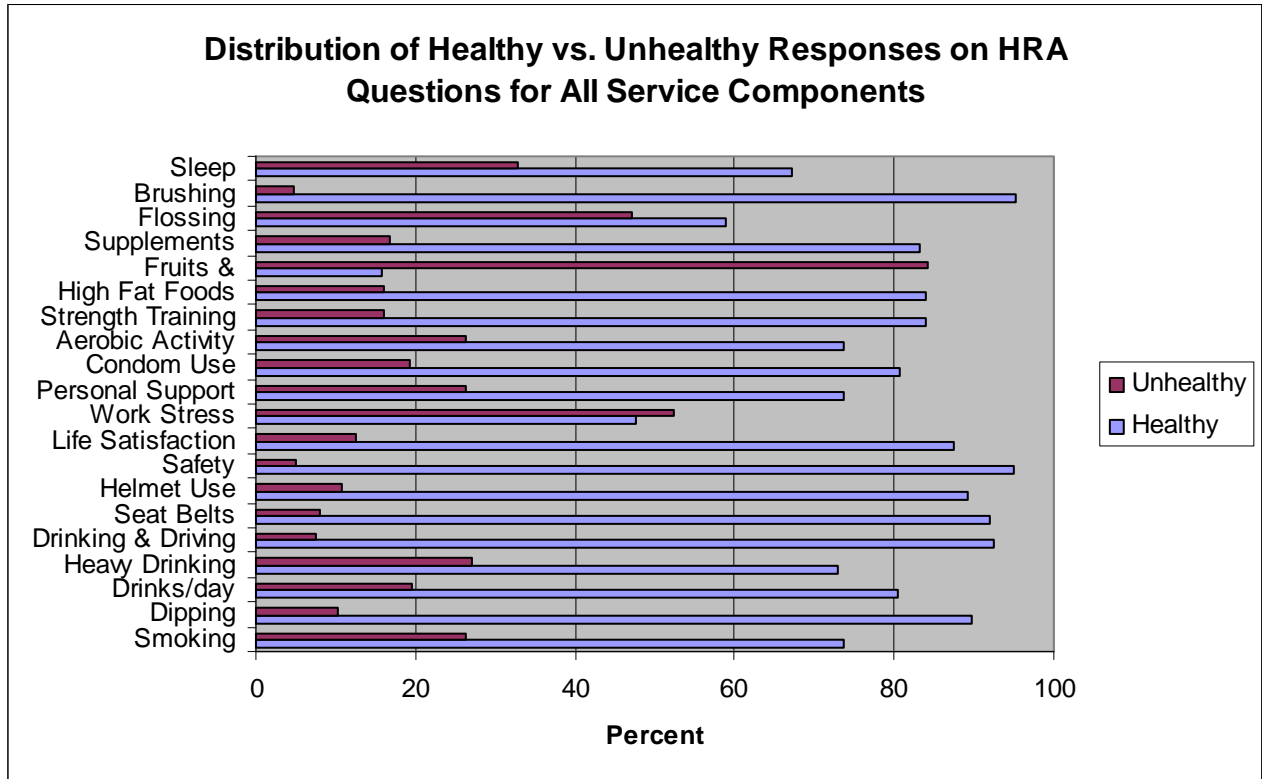


**Figure 14: Healthy v. Unhealthy Responses, USMCR**



Overall, the highest reported health risks included low intake of fruits and vegetables (84.3%), work stress (52.5%), lack of dental flossing (47.1%), and not getting enough restful sleep (32.8%). Other significant areas of concern included smoking (26.2%), heavy drinking (27.0%), lack of personal support (26.4%), and lack of aerobic activity (26.3%).

**Figure 15:** Healthy v. Unhealthy Responses, Total





**Figure 16: Distribution by Risk Categories**

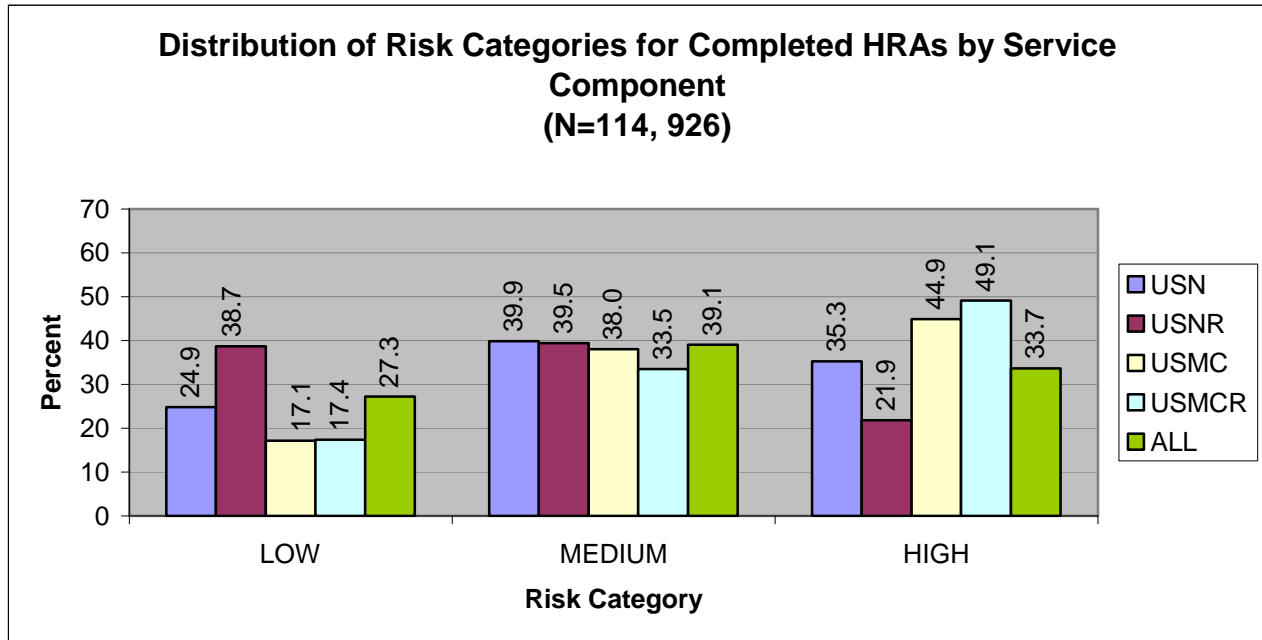


Figure 16 displays risk categories for each service component, based on the number of healthy versus unhealthy responses for each health topic. Each service member was categorized as low, medium, or high risk category. Members in higher risk categories are considered more likely to experience health problems in the future. Even though the USNR group consists of an older age cohort, 39% of USNR members scored in the low-risk category. Members in the USMC and USMCR both had large percentages of their service members falling into the high risk category (49% and 45%, respectively).

Tables 1 below displays the percent change in responses for each question between the 2007 (July 2006-June 2007) and 2008 (July 2007-June 2008) surveys. The percentage of healthy responses stayed the same or improved for most questions, although the reason for the significant reported increase in flossing is unknown. Only for two questions on work stress and intake of fruits and vegetables were the reported responses less healthy. Percent change was not calculated for questions with variations between the two years i.e. smoking, helmet use, safety equipment use, and condom use health questions. Statistical significance of the differences in percent change was not calculated because survey sample does not satisfy the assumptions of normal distribution and true representation of the general population.

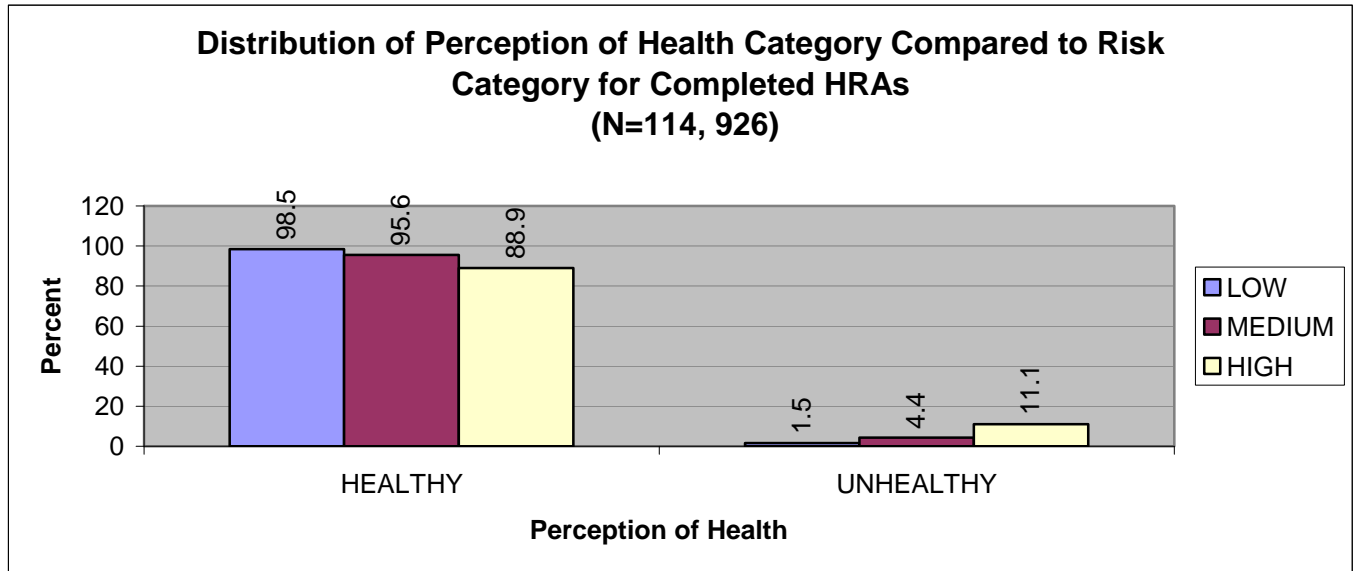
Table 1: Percent Change in Healthy Responses

Drinks/day	80	80	0
Heavy Drinking	72	73	1.4
Drinking & Driving	92	93	1.1
Seat Belts	90	92	2.2
Life Satisfaction	86	87	1.2
Personal Support	72	74	2.8
Aerobic Activity	73	74	1.4
Strength Training	83	84	1.2
High Fat Foods	81	84	3.7
Supplements	83	83	0
Flossing	51	59	15.7
Brushing	95	95	0
Sleep	66	67	1.5
Work Stress	48	46	-2.0
Fruits & Vegetables	16	14	-2.3

Perception of Health

Analysis of perception of health, indicated that 94% of service members answered that they believed they were generally in good or excellent health, which probably reflects a young population that is relatively free of overt health problems.. Figure 17 shows the risk categories of both the healthy versus unhealthy perception groups. Although the trends were consistent, with lower risk groups having a higher perception of good health, many (88.9%) high-risk individuals also perceived their health as good. This finding may indicate a need to better educate these individuals as to their personal risk and the long-term consequences of various risk behaviors. Of the small percentage of respondents who indicated their health was generally unhealthy (17%), the majority had risk scores that fell in the medium to high risk categories.

**Figure 17: Perception of Health v. Risk Category**



Mean Risk by Demographic Variables

The mean risk number or score varied by demographic variables. A statistically significant difference was observed between males and females (p-value < .0001), with males having a higher mean risk number (3.88) than females (3.15) (Table 3).

**Table 2: Mean risk by gender**

	Mean Risk Number	95% Confidence Interval	% in high risk Category
Female (n= 20, 337)	3.15	3.12, 3.17	22.15
Male (n= 94, 589)	3.88	3.87, 3.90	36.16

Age was examined as a second strong predictor of mean risk (Table 4). There was a statistically significant difference between virtually all age ranges, except between the 17-19 and 20-29 groups. There was a very clear trend of decreasing mean risk score with age. Some of this difference may be due to survivor effect or healthy worker effect, indicating that those who remain in the military tend to be healthier than those who leave the service. The second youngest age group (20-29 years of age) had a mean risk score of 4.21 compared to the oldest age group, 2.58 (50+ years of age). Similarly, a greater proportion of younger service members were in the high-risk category. As age increased the percentage in the high risk category decreased.

**Table 3: Mean risk by age**

	Mean Risk Number	95% Confidence Interval	% in high risk Category
17-19 (n = 5,037)	4.07	4.02, 4.12	38.89
20-29 (n = 63, 721)	4.21	4.20, 4.23	43.55
30-39 (n = 23, 853)	3.49	3.47, 3.51	27.86
40-49 (n=18, 469)	3.05	3.02, 3.07	18.85
50+ (n = 3,846)	2.58	2.53, 2.63	11.00

The same indirect association was demonstrated by comparing rank with mean risk scores (Table 5). The E1-E5 group, which is generally comprised of younger service members, had a mean risk number of 4.09 and the greatest percentage of members in the high risk category compared to E6-E9 and the officer ranks. Similarly, company grade officers had higher mean risk scores and a greater percentage of members in the high risk category compared to field grade officers. Overall, enlisted members had a higher mean risk number than officers. (3.94 compared to 2.88, respectively).

**Table 4: Mean risk by rank**

	Mean Risk Number	95% Confidence Interval	% in high risk Category
E1-E5 (n = 66, 510)	4.09	4.08, 4.12	41.15
E6-E9 (n = 28, 216)	3.57	3.54, 3.59	29.07
O1-O3 (n = 8,882)	3.18	3.14, 3.23	20.98
O4-O9 (n=10,825)	2.64	2.61, 2.67	10.77
W1-W5 (n=553)	3.35	3.21, 3.48	22.97

Race was also examined as a predictor of mean risk number (Table 6). The Other group (American Indians, Native Alaskans, etc.) had the highest mean risk numbers. Again, the nonparametric test Tukey’s was used to test for significance between the five race groups. As the largest group, Caucasians were chosen as the reference group. When comparing the mean risk number of this reference group, there were few statistically significant differences, indicated by the confidence interval overlap between the groups.. The largest statistical difference was found between the Caucasians and Other group with mean risk numbers of 3.75 to 3.92. However, much of the differences between the groups are likely due to sample size instead of a biological effect.

**Table 5: Mean risk by race**

	Mean Risk Number	95% Confidence Interval	% in high risk Category
African American (n = 7,824)	3.69	3.65, 3.73	32.06
Caucasian (n = 71,252)	3.75	3.74, 3.77	33.78
Asian/Pacific Islanders (n = 16,698)	3.72	3.69, 3.75	32.82
Hispanic (n = 14,214)	3.76	3.73, 3.79	33.90
Other (n=4,938)	3.92	3.87, 3.98	37.22

## **Discussion**

Limitations of this report are attributed to the limitations of the data collection tool. The HRA is a self-reported survey where results can be biased due to recall or social desirable responses. As such, some overestimation and underestimation of positive and negative behaviors may occur. The data does not include any personal identifiers making it difficult to eliminate duplicate records and match self-reported data to more objective data like medical records for confirmation. The data collection tool does not differentiate between those members whose risk factors have been affected by military deployments. Another limitation is that the entire tool was not tested for validity and reliability; subsequently caution should be taken in drawing conclusions from the results. The HRA only represents a nonrandom subset of the Navy and Marine Corps population there is some sampling bias and variance of results within the data set. As a result, it is difficult to directly compare Service components because the demographic characteristics that influence health behavior, as described earlier, vary significantly.

## **Conclusion**

The results of this analysis have shown that Navy and Marine Corps members self-report significant numbers of health risk factors. This tool can provide healthcare providers with a means to provide tailored counseling for primary prevention of disease and injury. The potential exists for improving personal health and deployment readiness.

# Appendix A Self-Assessment Questionnaire

Fleet and Marine Corps HEALTH RISK SURVEY

Fleet and Marine Corps HEALTH RISK SURVEY					
Age:		Sex:		Rank/Rate:	
Race/Ethnicity:		Height:	FEET	INCHES	Weight: POUNDS
				0	
Number of days spent away from home station in the past 12 months:					
1. Would you say that your health in general is ....  a. Excellent b. Good c. Fair d. Poor		2. Do you <u>currently</u> smoke cigarettes, cigars, pipes or hookah?  a. Every day b. Most days c. Some days d. Never smoked e. I quit		3. Do you <u>currently</u> use smokeless tobacco (e.g., dip snuff)?  a. Every day b. Most days c. Some days d. Never used smokeless tobacco e. I quit	
4. How many alcoholic beverages do you have during a typical day when you drink alcohol? ( <i>One drink = 12 ounces of regular beer, 5 ounces of wine, 1.5 ounces of 80-proof distilled spirits</i> )  a. 5 or more b. 3-4 c. 1-2 d. Not applicable, I do not drink alcohol or I seldom drink alcohol		5. How often do you typically drink 5 or more alcoholic drinks on one occasion? ( <i>"One Occasion" refers to an event or period when drinking exceeds one drink per hour</i> )  a. Daily b. Weekly c. Monthly d. Once or twice per year e. Never		6. How often do you drive when perhaps you have had too much to drink?  a. Often (i.e., more than once during the past 6 months) b. Sometimes (i.e., once during the past 6 months) c. Rarely (i.e., not in the past 6 months, but at least once during the past year) d. Never (i.e., not during the past year)	
7. Do you use a seat belt when you drive or ride as a passenger?  a. Always b. Most of the time c. Sometimes d. Rarely e. Never		8. How often do you wear a helmet when you ride a motorcycle, all-terrain vehicle, or bicycle?  a. Always b. Most of the time c. Sometimes d. Rarely e. Never f. Does not apply to me / I do not ride these vehicles		9. How often do you use the safety equipment recommended for your job? ( <i>e.g., hearing and vision protection, respirators, barriers, and other safety devices</i> )  a. Always b. Most of the time c. Sometimes d. Rarely e. Never f. Does not apply to me /	

Continued on next page

Fleet and Marine Corps HEALTH RISK SURVEY

<p>10. In general, how satisfied are you with your life? (e.g., work situation, social activity, accomplishing what you set out to do)</p> <p>a. Very satisfied b. Mostly satisfied c. Somewhat satisfied d. Not satisfied</p>	<p>11. How often do you feel that your work situation is putting you under too much stress?</p> <p>a. Always b. Most of the time c. Sometimes d. Rarely e. Never</p>	<p>12. How often do you have someone to talk to when you are feeling lonely, depressed, angry, or in need of help?</p> <p>a. Always b. Most of the time c. Sometimes d. Rarely e. Never</p>
<p>13. In the past 12 months, how often did you or your partner(s) use a condom when you had sex?<b>(read all choices below carefully before responding)</b></p> <p>a. Not Applicable, I am in a long-term relationship where we only have sex with each other / I am not sexually active b. Always c. Most of the Time d. Sometimes e. Rarely f. Never</p>	<p>14. How often do you usually do at least 20 minutes of non-stop vigorous aerobic activity that results in a significant increase in heart and breathing rate (e.g., jogging, high-impact aerobics, continuous swimming, or bicycling fast or uphill)?</p> <p>a. 5 or more days a week b. 4 days a week c. 3 days a week d. 2 days a week e. Once or less per week, or only twice per year for the PRT</p>	<p>15. How often do you usually do at least 20 minutes of strength training exercise involving most of the major muscle groups? (e.g., sit-ups, pushups &amp; chinups, stair-climbing, weightlifting, manual labor)</p> <p>a. 5 or more days a week b. 4 days a week c. 3 days a week d. 2 days a week e. Once or less per week, or only twice per year for the PRT</p>
<p>16. How often do you usually eat high-fat foods? (e.g., fried foods; high-fat dairy products such as butter, cheese, or whole milk; or packaged foods high in fats)</p> <p>a. At most or every meal b. At least once a day c. 3-5 days a week d. Less than 3 days a week e. Rarely or never</p>	<p>17. About how many servings of fruits and/or vegetables do you usually eat each day? (One serving = 1 medium fresh fruit; 1/2 cup chopped, cooked, or canned fruit or vegetable; 3/4 cup fruit or vegetable juice; or 1 cup raw leafy vegetable)</p> <p>a. 9 or more b. 7-8 c. 5-6 d. 3-4 e. Less than 3 servings per day</p>	<p>18. How often do you use over the counter (OTC) drugs, dietary supplements, or herbal products to help you manage your weight, enhance athletic performance, or treat depression?</p> <p>a. Daily b. Weekly c. Monthly d. Seldom e. Never</p>
<p>19. How frequently do you floss your teeth?</p> <p>a. Daily b. Most days c. Sometimes d. Rarely e. Never</p>	<p>20. How often do you brush your teeth with a fluoride toothpaste?</p> <p>a. At least twice a day b. Once a day c. Most days d. Some days e. Rarely or never</p>	<p>21. How often do you get enough restful sleep to function well in your job and personal life?</p> <p>a. Always b. Most of the time c. Sometimes d. Rarely e. Never</p>

Appendix B Commanding Officer Report Scoring Grid

**CO Report Scoring Grid**

Health Indicator	Health Behavior	Unhealthy Rating	Healthy Rating
<b>Perception</b>	1. Perception of health	c-d	a-b
<b>Tobacco Use</b>	2. Smoking	a-c	d
	3. Smokeless Tobacco	a-c	d
<b>Alcohol Use</b>	4. Typical Drinking	a-b	c-d
	5. Heavy Drinking	a-c	d-e
	6. DUI	a-c	d
<b>Injury Prevention</b>	7. Seat Belt	b-e	a
	8. Vehicle Helmets*	c-e	a-b
	9. Safety Equipment*	c-e	a-b
<b>Stress Mngt</b>	10. Life Satisfaction	c-d	a-b
	11. Work or Personal Stress	a-c	d-e
	12. Personal Support	c-e	a-b
<b>Sexual Health</b>	13. Condom Use	b-e	a,f
<b>Physical Activity</b>	14. Aerobic Exercise	d-e	a-c
	15. Strength Exercise	e	a-d
<b>Nutrition</b>	16. High Fat	a-b	c-e
	17. Fruits & Vegetables	Males: c-e Females: d-e	Males: a-b Females: a-c
<b>Supplements</b>	18. Supplements	a-c	d-e
<b>Dental</b>	19. Flossing	c-e	a-b
	20. Brushing	c-e	a-b
<b>Sleep</b>	21. Sleep Deprivation	c-e	a-b
<b>BMI</b>		BMI>25	

\*Questions 8 & 9 allow respondents to select 'f' (Does not apply) as an answer. This answer is not included in the ratings.

\*Question 13, Condom Use, a change was made to the questionnaire in May 2008. The table below shows the old question format and new question format. The data are stored and analyzed using the old question format.

Old Question Answers	New Question Answers
A-Always A-Monogamous	relationship
B-Most of the time	B-Always
C-Sometimes	C-Most of the time
D-Rarely D-Sometimes	
E-Never E-Rarely	
F-Monogamous relationship	F-Never