

# AMSARA



## Accession Medical Standards Analysis & Research Activity



Report of 2006  
Attrition & Morbidity Data  
For 2005 Accessions

## 20080115334

## Annual Report 2006

Published & Distributed First Quarter of Fiscal Year 2008

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# REPORT DOCUMENTATION PAGE

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<b>1. REPORT DATE (DD-MM-YYYY)</b> 17-12-2007		<b>2. REPORT TYPE</b> Annual Report		<b>3. DATES COVERED (From - To)</b> 1 Jan 06 – 31 Dec 06	
<b>4. TITLE AND SUBTITLE</b>  AMSARA: Accession Medical Standards Analysis and Research Activity 2006 Annual Report				<b>5a. CONTRACT NUMBER</b> W81XWH-07-F-0067	
				<b>5b. GRANT NUMBER</b> N/A	
				<b>5c. PROGRAM ELEMENT NUMBER</b> 847714	
<b>6. AUTHOR(S)</b>  Scott, Christine T.; Powers, Timothy E.; Li, Yuanzhang; Han, Weiwei; Weber, Nataiya S.; Gary, Janice K.; Niebuhr, David W.; Packnett, Elizabeth				<b>5d. PROJECT NUMBER</b> N/A	
				<b>5e. TASK NUMBER</b> N/A	
				<b>5f. WORK UNIT NUMBER</b> N/A	
<b>7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)</b> Accession Medical Standards Analysis and Research Activity (AMSARA) Department of Epidemiology Division of Preventive Medicine Walter Reed Army Institute of Research 503 Robert Grant Ave Silver Spring, MD 20910				<b>8. PERFORMING ORGANIZATION REPORT NUMBER</b>	
<b>9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)</b> Medical Research and Materiel Command Walter Reed Army Institute of Research 503 Robert Grant Ave Silver Spring, MD 20910				<b>10. SPONSOR/MONITOR'S ACRONYM(S)</b> WRAIR	
				<b>11. SPONSOR/MONITOR'S REPORT NUMBER(S)</b>	
<b>12. DISTRIBUTION / AVAILABILITY STATEMENT</b> APPROVED FOR PUBLIC RELEASE					
<b>13. SUPPLEMENTARY NOTES</b>					
<b>14. ABSTRACT</b> The Accession Medical Standards Analysis and Research Activity (AMSARA) has completed its tenth year of providing the DoD with evidence-based evaluations of accession medical standards. The Annual Report presents descriptive statistics that AMSARA compiles annually and publishes for historical and reference value as well as special studies. Studies in this Annual Report include a study of stress fractures in female military recruits, an abstract from the Assessment of Recruit Motivation and Strength (ARMS) study, and a survival analysis of new recruits requiring a medical waiver for knee or shoulder instability. The descriptive statistics are for applicants who enlisted in 2005. Data are collected while the recruits remain on active duty for their first year (during 2006 for this report). The data are then collated, cleaned, and analyzed during the first half of the subsequent year (2007 for this report). By convention, the annual report is dated for the last year of data on which the analyses were performed.					
<b>15. SUBJECT TERMS</b> Military Medical Standards, Personnel Selection, Hospitalizations, Recruits, Epidemiology, Attrition, Disability, Statistics, Preventive Medicine, Physical Fitness, Motivation, Accession, Waiver, Existing Prior to Service					
<b>16. SECURITY CLASSIFICATION OF:</b>			<b>17. LIMITATION OF ABSTRACT</b>	<b>18. NUMBER OF PAGES</b>	<b>19a. NAME OF RESPONSIBLE PERSON</b>
<b>a. REPORT</b>	<b>b. ABSTRACT</b>	<b>c. THIS PAGE</b>			MAJ Sheryl A. Bedno
U	U	U	UU	75	<b>19b. TELEPHONE NUMBER (include area code)</b> 301-319-3151

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# Executive Summary

The Accession Medical Standards Analysis and Research Activity (AMSARA) has completed its tenth year of providing the DoD with evidence-based evaluations of accession standards. This year, AMSARA is publishing two Annual Reports in response to customer requests for more current information. This report provides data on 2005 accessions while data on 2006 accessions will be provided in the report planned for December 2007.

AMSARA evaluates accession medical standards and retention programs to improve military readiness by maximizing both the accession and retention of motivated and capable recruits. Section 1 of this report documents some of the studies completed over the last year to include findings of fully qualified applicants enrolled in the multi-site prospective study, the Assessment of Recruit Motivation and Strength (ARMS). In summary, the study indicates that a simple test of aerobic and muscular fitness, as well as self-motivation to perform well on the test, is strongly predictive of a recruit's ability to succeed as an active duty Army enlistee. These findings are presented in abstract form in this report and as a full manuscript submitted to *Military Medicine* in July 2007.

On the strength of these results, the ARMS study was expanded to determine whether the same fitness testing could be used to identify recruits who could succeed on duty even though exceeding traditional weight height/body fat standards. This report contains a study of the risk of stress fractures among females who exceeded the body fat standards but were allowed into the service as a result of passing ARMS, and the effect of percent body fat and aerobic fitness on that risk. Follow-up is ongoing in this study for a wider range of medical and attrition outcomes. Interim results will first be addressed in the AMSARA Annual Report 2007.

Also included in this report is a summary of the first in a series of three analyses that will be done on common orthopedic problems. In this study, new military recruits requiring an accession medical waiver for knee or shoulder instability were compared to new recruits who did not need a medical waiver for any condition. The recruits with the waiver were found to have attrition equal to that among the recruits without need of a medical waiver, thus validating the accession medical process for these commonly encountered conditions.

Section 2 of this report includes the descriptive statistics AMSARA compiles and publishes annually for historical and reference value. Descriptive statistics are for applicants who enlisted in 2005. Data are collected while the recruits remain on their first year of active duty (during calendar year 2006 for this report). The data are then analyzed during the first half of the subsequent year (January to June 2007 for this report). By convention, the annual report is dated for the last year of data on which the analyses were performed. This report provides data on 2005 accessions and compares it to five year aggregate data from 2000-2004. Comparisons can be made between services and on occasion between enlisted component (active, reserve, guard).

Approximately 267,000 active, reserve, and guard enlisted applicants were examined for medical fitness at Military Entrance Processing Stations (MEPS) in 2005 compared to approximately 325,000 per year average from 2000 to 2004. While the age, gender, and race of active duty enlisted applicants remained relatively consistent, in 2005 the enlisted reserves and guard were older compared to 2000-2004, with increases seen in the >30 years category. The percentage of black applicants to both the reserves and guard decreased in 2005. In 2005 a

greater percentage of enlisted reserve and guard applicants scored in the lowest AFQT percentile for military eligibility (11-29<sup>th</sup>) as compared to the previous 5-year period.

Approximately 7% of applicants for active duty enlisted service were initially disqualified for service due to permanently disqualifying medical conditions, and another 11.5% received disqualifications for conditions that could be remediated, primarily excess body weight or marijuana use. Such recruits, however, are less likely to ultimately become Servicemembers, as less than 5% of subsequent accessions were from among those with a permanent disqualification, and less than 8% were from among those with a temporary disqualification. The most common reasons for permanent medical disqualifications in 2005 were hearing deficiency, visual refractive error (including myopia), orthopedic, psychiatric, and asthma.

While asthma and attentive disorders (ADHD) remain among the most common causes of medical disqualification, the numbers of applicants disqualified for these conditions decreased considerably in 2005 compared to the previous 5-year period. This is likely attributable to recent relaxation of the asthma and ADHD standards to apply only to applicants who experienced complications after age 13 for asthma and within 1 year of accession for ADHD. These changes in standards were based, in part, on past AMSARA research that showed recruits granted waivers for these conditions have attrition and healthcare utilization patterns similar to fully qualified recruits.

Accession medical waivers are considered by each service for applicants with a disqualifying medical condition. Accordingly, the conditions most frequently considered for waiver closely reflect the most common disqualification conditions. In total, more than 25,500 applications for accession medical waivers were considered in 2006. The percentage of waivers approved varies substantially by the medical condition being considered, with overall approval percentages ranging from 40-65 percent. Over the past six years the Air Force has had the lowest approval percentage and the Army has had the highest. Differences in approval percentages between the services may reflect differences in the applicant pools applying to the services, different distributions of conditions being considered for waiver, or different philosophies of each service's waiver authority. It is interesting to note that the waiver approval percentage has shown a modest decline over the past six years while the need for new recruits in the Army has risen during that time. One possible explanation for this result is that the accession medical standards for some conditions commonly waived, such as pre-adolescent asthma or ADHD, have been removed from the list of disqualifying conditions.

Hospitalization data are provided for the period 2000-2005. Numbers of hospitalizations and of individuals hospitalized among first year enlistees have declined significantly over this period, from a high of over 9,500 in 2000 to a low of less than 5,500 in 2005. This decline might be due, in part, to the increase of Servicemembers serving in areas overseas without immediate access to fixed military medical treatment facilities. Among the top reasons for hospitalization within the first year of service for all services in 2005 as well as 2000-2004 were psychiatric conditions, pneumonia and influenza, and injuries. Army enlistees had the highest risk of hospitalization, and first year enlistees in the Navy, Marines, and Air Force had significantly less risk by comparison. Being female, older in age at enlistment, and lower military aptitude score (AFQT) were risk factors for hospitalization.

Discharges of recent enlistees for medical conditions that existed prior to service (EPTS) are a costly problem for all branches of the military, and are considerably more common than data would indicate. Documentation of EPTS discharges is requested from each Initial Entry Training (IET) sites to USMEPCOM but this reporting is not required by service regulations. While total numbers of reported discharges have remained relatively stable over time (about

7,500 per year), there is clear underreporting at the various IETs. For example, the Air Force provided no EPTS discharge records for large parts of 2000 and 2001, and the Marine base at San Diego has reported very few in recent years (see "Data Sources" section of this report for more details). Moreover, a recent study by AMSARA at Fort Leonard Wood suggests that as many as 15% of administrative discharges among basic trainees have substantial medical involvement (Military Medicine, 171, 11:1142, 2006).

Past AMSARA studies have shown that the great majority of EPTS discharges are for medical conditions that were not discovered or disclosed at the time of application for service, with concealment by the applicant being the most common scenario. Accordingly, the primary problem of EPTS discharges appears to be the bypassing of accession medical standards rather than the implementation of those standards. Orthopedic conditions, psychological conditions, and asthma are the most common causes of EPTS discharges reported to USMEPCOM. Increased risk of EPTS discharge is seen with being female, increasing age, white, and with having less than a high school education.

Disability discharge is very infrequent among new enlistees, with less than one half of one percent of enlistees being considered for such discharge. Such discharges among first-year Army and Air Force enlistees have shown a considerable downward trend since a peak in 2002, although this trend might be expected to reverse as Servicemembers injured in action are processed. Data on Navy and Marine disability discharges are not currently available to AMSARA.

AMSARA is committed to further development of evidence-based medical accession standards to enable the DoD to enlist the highest quality applicants in a cost-effective manner, thereby ensuring a healthy, fit, and effective force. The following programmatic recommendations are based on 11 years of research.

1. Various databases must be improved. For example, waiver data do not provide sufficient clinical detail to allow analyses of waiver decision criteria.
2. EPTS reporting from the IET sites to MEPCOM, which is still passive, should be mandated by DoD/service regulations and be converted from paper to digital records.
3. AMSARA should continue prospective studies similar to the ARMS that challenge current accession standards. MEPS-based studies that are outcome oriented (including morbidity, occupational qualification and performance, deployability, and attrition) in the area of physical and mental fitness, including motivation to serve, should be prioritized.
4. Rather than study accession medical standards in isolation, the medical standards across the continuum of a soldier's life-cycle should be analyzed using evidence-based principles. This would include medical standards for deployment and retention, in addition to accession medical standards.
5. AMSARA should develop expertise in cost-benefit analyses in order to better advise DoD medical standards policy makers.

## Introduction

The Medical-Personnel Executive Steering Committee (formerly the Accession Medical Standards Steering Committee) was established by the Undersecretary of Defense (Personnel and Readiness) to integrate the medical and personnel communities so they could provide policy guidance and establish standards for accession requirements. These standards would stem from evidence-based information provided by analysis and research. The committee is co-chaired by the Deputy Assistant Secretary of Defense (Military Personnel Policy) and the Deputy Assistant Secretary of Defense (Clinical and Program Review) and comprises representatives from the Office of the Assistant Secretary of Defense (Force Management Policy), Office of the Assistant Secretary of Defense (Health Affairs), Office of the Assistant Secretary of Defense (Reserve Affairs), Offices of the Service Surgeons General, Offices of the Service Deputy Chiefs of Staff for Personnel, and Office of Personnel and Training (Headquarters, U.S. Coast Guard).

The Accession Medical Standards Working Group is a subordinate working group that reviews accession medical policy issues contained in DoD Instruction 6130.4, entitled "Medical Standards for Appointment, Enlistment, or Induction in the Armed Forces." This group is composed of representatives from each of the offices listed above.

AMSARA was established in 1996 within the Division of Preventive Medicine at Walter Reed Army Institute of Research to support the efforts of the Accession Medical Standards Working Group. The mission of AMSARA is to support the development of evidence-based accession standards by guiding the improvement of medical and administrative databases, conducting epidemiologic analyses, and integrating relevant operational, clinical, and economic considerations into policy recommendations. AMSARA has the following seven key objectives:

1. Validate current and proposed standards utilizing existing databases (e.g., should asthma as a child be disqualifying?);
2. Incorporate prospective research studies to challenge selected standards (e.g., are body weight standards adequate measures of fitness?);
3. Validate assessment techniques (e.g., improve current screening tools);
4. Perform quality assurance (e.g., monitor geographic variation);
5. Optimize assessment techniques (e.g., develop attrition and morbidity prediction models);
6. Track impact of policies, procedures, and waivers;
7. Recommend changes to enhance readiness, protect health, and save money.

Military staffing to support this effort includes the Chief, AMSARA, COL Christine T. Scott and the Chief, Epidemiology and Deputy Director, Division of Preventive Medicine, COL David W. Niebuhr.

AMSARA is augmented with contract support through Allied Technology Group. Current staff includes Project Manager and Senior Analyst, Timothy Powers; Senior Statistician, Dr. Yuanzhang Li; Statisticians, Weiwei Han and Robert Federici; Analysts, Elizabeth Packnett, Dr. Natalya Weber and Bennett Datu; Data Manager, Janice Gary; and Program Administrative Assistant, Vielka Rivera.

# 1. STUDIES

## **Assessment of Recruit Motivations and Strength (ARMS) Study: A Pre-Accession Physical Fitness Assessment that Predicts Attrition**

**Background:** Approximately 280,000 active, reserve, and guard enlisted applicants are examined for medical fitness at Military Entrance Processing Stations (MEPS) each year with approximately 160,000 of those screened eventually entering the service. Despite the extensive screening process which includes criminal background checks, aptitude testing, medical examination and weight for height standards, nearly 6,000 recruits per year receive discharges for medical conditions existing prior to service (EPTS) within 6 months and another 10,000 are prematurely discharged for a variety of reasons including failure to pass a minimum physical fitness test. Research conducted in the U.S. and foreign militaries have demonstrated an association between pre-military service fitness level and subsequent risk of training-related injuries and attrition. Another factor likely related to success in basic training and beyond is an individual's motivation to succeed. Research has shown that willingness to participate in sports and exercises are correlated with task completion, ego and motivation. The Assessment of Recruit Motivation and Strength (ARMS) study was designed to pilot the use of simple, quick pre-accession fitness performance tests to help identify individuals who may lack the physical fitness and/or motivation required to complete basic training.

**Methods:** A prospective study of ARMS testing as a screening tool for fitness was conducted at six Military Entrance Processing Station (MEPS) locations (Atlanta, Buffalo, Chicago, Sacramento, San Antonio, and San Diego) beginning in February 2004. These MEPS were selected to get a reasonable geographic and demographic representation of the total 65 MEPS. The first three months of the study were dedicated to logistical implementation of the ARMS test and standardization of procedures at the six sites. The ARMS test consists of two components: a 5-minute step test and push-ups. The step test used in this study is a modified Harvard Step Test originally developed by Brouha, Graybiel, and Heath at the Harvard Fatigue Laboratory in 1943. Subjects were instructed to step up and down on a 21" x 27", non-skid, adjustable step-up box set to a height of 12" for females and 16" for males based on the physiologic gender differences in aerobic metabolism. The stepping pace was kept by a metronome at 120 beats per minute, with a step being defined as a complete cycle of stepping up (both feet on the platform) and stepping down (both feet back on the floor). Therefore, 120 beats per minute is equivalent to 30 steps per minute. Subjects performed the step test for 5 minutes or until failure or inability to continue at the proper pace. Upper body muscular endurance was tested by requiring recruits to complete as many push-ups as possible in a one-minute period of time. Males and females were required to complete a minimum of 15 and 4 pushups, respectively, in order to pass this portion of ARMS.

**Results:** There were 9,196 individuals who took both components of the ARMS test during May 2004 to December 2005, of which 7,612 subsequently accessed onto active duty enlisted service during that same time period. ARMS test performance was found to be significantly related to attrition: the hazard ratio for failing relative to passing ARMS was 2.27 (95% C.I. 1.70-3.04) among females and 1.36 (95% C.I. 1.13-1.64) among males. The attributable risk of attrition associated with failing ARMS was approximately 40% among females and 30% among males.

**Discussion:** The ARMS study is the first prospective study conducted in the US Army to assess physical fitness prior to accession. Physical fitness and motivation to serve were shown to correlate with attrition in initial entry training. The significant relation between ARMS test performance and likelihood of subsequent attrition remained after controlling for other known risk factors for attrition. The elevation in attrition hazard was significant among both males and females who failed ARMS relative to their counterparts who passed.

## Stress Fractures in Female Military Recruits: Effect of Percent Body Fat and Fitness

**Background:** In 2004, the Accession Medical Standards Analysis and Research Activity of the U.S. Army proposed the Assessment of Recruit Motivation and Strength (ARMS) study in which medically qualified recruits were given an initial screening fitness test. Preliminary results indicated that those who were able to complete the test were less likely to attrite early in their service, and were also less likely to suffer injury during training. On the basis of these results, the Army decided to extend this program on a trial basis to allow recruits who exceed the traditional weight-for-height and body fat standards to get an automatic waiver by successfully completing the ARMS test.

**Study Aims:** Lower extremity stress fractures are a major cause of morbidity during basic training in female recruits. The aim of this study is to evaluate whether the hazard of lower extremity stress fracture is the same when comparing female Army recruits who exceed the allowable body fat to females who meet body fat standards. Specifically, we will determine a) whether female recruits who pass the ARMS test but exceed body fat standards are at greater risk for stress fracture than their fully qualified counterparts; and b) if the stress fracture risk among over body fat females differs according to whether or not they passed ARMS.

**Methods:** Health records of all female recruits enrolled in the ARMS study and subsequently accessed onto active duty from May 2004 to December 2006 were reviewed. Lower extremity stress fractures were identified by ICD-9 codes. Subjects were classified into four groups: A) met the weight-for-height limit; B) exceeded weight-for-height limit but within body fat limit; C) initially exceeded weight-for-height and body fat limits, but then met these limits prior to shipping; and D) exceeded weight-for-height and body fat limits, but passed ARMS and accessed with an ARMS waiver. Kaplan-Meier curves were used to analyze stress fracture-free survival across the defined subject categories. Multivariate analysis and stratified analyses were completed using Cox Proportional Hazard Models.

**Results:** A total of 1,692 subjects met the criteria for subject inclusion. Among these, 848 (50.1%) were in group A, 497 (29.4%), in group B, 110 (6.5%) in group C, and 237 (14.0%) in group D. The hazard of lower extremity stress fracture in female recruits receiving an ARMS waiver compared to weight and body fat qualified recruits was 1.54 (95% confidence interval, 1.25 to 1.88). Fitness index and age were also significantly associated with hazard of lower extremity stress fracture (0.92, (95% CI: 0.89 to 0.95), and 1.04, (95% CI: 1.02 to 1.06)). Race, ethnicity and smoking status were not found to be significantly associated.

**Discussion:** Female recruits who exceed the Army's allowable percent body fat have an increased hazard of lower extremity stress fracture as compared to weight and body fat qualified female recruits. However, for highly fit female recruits, there is no association between body fat percentage and hazard of lower extremity stress fracture.

## Survival Analysis of New Military Recruits Requiring Medical Waiver for Knee or Shoulder Instability

**Background:** A successful a military force requires its members be physically fit. New recruits that fail to complete initial recruit training or fail to complete their service obligations inflict a large burden on the military services economically and in terms of operational readiness. Total manpower requirements, however, dictate that the military consider for enlistment some individuals with past or current medical circumstances that might put them at elevated risk of attrition. The goal of this study is to determine if new recruits who enter active duty in the Army, Navy, Air Force, and Marine Corps with a medical waiver for knee or shoulder instability are more likely to experience premature discharge or hospitalization early in service than ostensibly healthy recruits.

**Methods:** We conducted a prospective cohort study of new enlisted military recruits who entered on active duty in the Army, Navy, Air Force, and Marine Corps between January 1, 1999 and December 31, 2005. The study group included all recruits who entered active duty during the indicated timeframe with an accession medical waiver for knee or shoulder instability. We matched individuals in the study group to a fully qualified comparison group in a 1:3 ratio on service branch, sex, age (within 1 year), race and month and year of beginning active duty. We followed the study and comparison groups from entry into recruit training through December 31, 2005 or until loss from service, whichever came first. Kaplan-Meier survival analysis was used to compare attrition patterns between groups of matched subjects.

**Results:** There was no statistically significant difference in overall likelihood of attrition between the focus subjects and their matched comparison subjects. This was true when comparing the subjects with knee instability waivers to their matched comparison subjects, and also when comparing subjects with shoulder instability waivers to their matched counterparts. Comparison of these subject groups by service also yielded no statistically significant difference in military retention patterns ( $p > 0.10$  for all comparisons).

**Discussion:** This study indicates that military recruits granted an accession medical waiver for either knee or shoulder instability is at no increase risk of first-term attrition relative to ostensibly healthy recruits. Detailed analyses of healthcare utilization and of risk of re-injury are needed before definitive conclusions can be drawn. However, the attrition results yield initial support to current accession waiver criteria. It would be reasonable to continue without modification to the waiver criteria for knee or shoulder instability. These conditions might be considered for further study, including a cost-benefit analysis of more lenient accession standards.

## 2. DESCRIPTIVE STATISTICS FOR APPLICANTS AND ACCESSIONS FOR ENLISTED SERVICE

The populations of applicants are described for enlisted service in the active duty, reserve, and National Guard components of the military from 2000 to 2005. For active duty applicants, subsequent accessions are also shown. An enlistee *applicant* is the individual who presents to the MEPS for evaluation for acceptance into military service. An enlistee *accession* is the individual who has signed his or her oath of enlistment.

Except where otherwise noted, the following conventions apply:

- All references to year refer to calendar year.
- “Accessions” shown in these tables are from among the applicants shown in the corresponding previous column. For example, columns showing calendar year 2005 accessions are summarizing accessions only among individuals who applied for service in calendar year 2005. Notation is made when complete follow-up is unavailable.
- Only data through calendar year 2005 are included. Therefore, numbers and percentages gained (i.e. accessions) among applicants in 2005 refer only to those gained within that calendar year. Analogous results are presented for prior years for purposes of comparison.
- All merging of data sets to derive percentages and rates were performed at an individual level by Social Security Number (SSN). For example, in determining the percentage of individuals gained in 2005 who received a discharge, only discharges with a SSN matching a 2005 accession record SSN were included.
- Non-missing totals may vary slightly among tables depending upon the variable by which percentages or rates are presented. Records with a missing variable used to calculate a percentage or rate in a given table are not included in that table, though the record may appear in other tables.
- Under the subsections titled “Active Duty Applicants at MEPS with Accession Records” and “Medical Waivers,” education level and age were obtained at the time of MEPS application because MEPS data are the only source of these variables for applicants. For subsections titled “Hospitalizations,” “EPTS Discharges,” and “Disability Discharges among Army and Air Force Active Duty Enlistees,” education level and age at the time of accession are used. Under the Delayed Entry Program, the application process can occur up to 2 years before the actual accession takes place.
- Temporary medical disqualifications are for conditions that can be remedied, such as being overweight or recently using marijuana. Permanent medical disqualifications are for all other disqualifying conditions described in DoD Instruction 6130.4.

## Active Duty Applicants at MEPS with Accession Records

Tables 1.1-1.8 describe the population of applicants who received an accession medical examination and subsequent accessions for active duty, enlisted service in the Army, Navy, Marines, and Air Force.

Table 1.1 shows the numbers of applicants and the percentage of subsequent accessions among applicants between the years 2000 and 2004 and in the year 2005. The percentage of accessions is presented in two ways: 1) total accessions through 2005 and 2) accession within the same calendar year as application. The presentation of the average "within year" accession rate for the years 2000 to 2004 provides a fair basis for the comparison of the "within year" accession rate in 2005.

Among the four branches of service, only the Army demonstrated a similar within-year accession rate in 2005 (38.0%) relative to the average rate between 2000 and 2004 (37.5%). The accession rate among Marines in 2005 (50.6%) was notably higher than the average accession rate of Marines between 2000 and 2004 (39.2%). 2005 accession rates of Navy (31.8%) and Air Force (36.7%) applicants were somewhat lower than the average accession rates within one year from 2000 to 2004 (38.7% and 43.6% respectively).

**TABLE 1.1 ACCESSIONS FOR ACTIVE DUTY ENLISTED APPLICANTS AT MEPS WHO RECEIVED A MEDICAL EXAMINATION IN 2000–2004 VS 2005: SERVICE**

Service	All Applicants 2000–2004			Applicants in 2005	
	Count	Accession Rate	Accession Rate within year	Count	Accession Rate within year
Army	451,916	58.8	37.5	74,896	38.0
Navy	299,561	69.2	38.7	47,729	31.8
Marines	213,240	68.7	39.2	38,232	50.6
Air Force	212,924	75.1	43.6	31,539	36.7
Total	1,177,641			192,396	

Table 1.2 shows the number of applicants for enlisted service by year for 2000-2005 and the associated accession counts and rates within one year and within two years following application. Regulations state that accessions must occur within one year of application, although it is fairly common for applicants to request and to be granted a one-year extension. Calculated accession rates within one year in 2005 were lower than those observed in 2003 and 2004 owing to the lack of full year follow-up data for applicants in 2005. Two-year accession percentages are low for applicants in 2004 owing to the lack of two years of follow-up data. These caveats aside, approximately two-thirds of applicants appear to be gained into active duty within one year of applying with only a small percentage (<3%) gained more than one year after application.

**TABLE 1.2 ACCESSIONS WITHIN 1 AND 2 YEARS OF APPLICATION FOR ACTIVE DUTY ENLISTED APPLICANTS AT MEPS WHO RECEIVED A MEDICAL EXAMINATION IN 2000–2005**

Year of exam	Applicants	Accessions within 1 year of application		Accessions within 2 years of application	
		Count	Percent	Count	Percent
2000	240,298	162,293	67.5	169,945	70.7
2001	249,608	166,584	66.7	174,765	70.0
2002	259,946	166,881	64.2	176,045	67.7
2003	234,460	134,765	57.5	142,421	60.7
2004	193,329	101,779	52.6	107,112	55.4
2005	192,396	74,489	38.7	-	-

\* The accession rate was underestimated owing to the lack of full follow-up data.

Tables 1.3-1.6 show demographic characteristics and accession rates for the applicant pools 2000-2004 and 2005 at the time of application. Most applicants in 2005 were male (82.0%), aged 17-20 years (72.8%), and white (75.6%). Approximately 36% of applicants had not completed high school at the time of application. This demographic profile is consistent with the demographic profile of the applicants between 2000 and 2004. Further, demographic distributions of accessions reflect the applicant population with regard to gender, age, race, and education. Slight differences may be seen between applicants and accessions on these demographic variables, though these differences are likely attributable to random fluctuations that occur within any given year.

**TABLE 1.3 ACTIVE DUTY ENLISTED APPLICANTS WHO RECEIVED A MEDICAL EXAMINATION IN 2000–2004 VS 2005: GENDER**

Gender	2000–2004				2005			
	Applicants		Accessions		Applicants		Accessions	
	Count	%	Count	%	Count	%	Count	%
Male	949,595	80.6	644,307	82.7	157,737	82.0	62,248	83.6
Female	228,036	19.4	134,799	17.3	34,654	18.0	12,238	16.4
Missing	10	-	4	-	5	-	3	-
Total	1,177,641	-	779,110	-	192,396	-	74,489	-
Total (Non-missing)	1,177,631	100.0	779,106	100.0	192,391	100.0	74,486	100.0

**TABLE 1.4 ACTIVE DUTY ENLISTED APPLICANTS WHO RECEIVED A MEDICAL EXAMINATION IN 2000–2004 VS 2005: AGE**

Age	2000–2004				2005			
	Applicants		Accessions		Applicants		Accessions	
	Count	%	Count	%	Count	%	Count	%
17–20 yr	881,492	74.9	599,734	77.0	140,095	72.8	54,170	72.7
21–25 yr	226,186	19.2	144,555	18.6	39,680	20.6	16,452	22.1
26–30 yr	50,932	4.3	27,307	3.5	8,283	4.3	2,955	4.0
>30 yr	18,748	1.6	7,298	0.9	4,291	2.2	895	1.2
Missing	283	-	216	-	47	-	17	-
Total	1,177,641	-	779,110	-	192,396	-	74,489	-
Total (Non-missing)	1,177,358	100.0	778,894	100.0	192,349	100.0	74,472	100.0

**TABLE 1.5 ACTIVE DUTY ENLISTED APPLICANTS WHO RECEIVED A MEDICAL EXAMINATION IN 2000–2004 VS 2005: RACE**

Race	2000–2004				2005			
	Applicants		Accessions		Applicants		Accessions	
	Count	%	Count	%	Count	%	Count	%
White	824,855	72.7	553,107	72.9	121,649	75.6	47,339	76.1
Black	197,643	17.4	129,845	17.1	22,815	14.2	8,883	14.3
Other	111,731	9.9	76,166	10.0	16,479	10.2	5,975	9.6
Missing*	43,412	-	19,992	-	31,453	-	12,292	-
Total	1,177,641	-	779,110	-	192,396	-	74,489	-
Total (Non-missing)	1,134,229	100.0	759,118	100.0	160,943	100.0	62,197	100.0

\*Note: A much higher number of applicants declined to provide information on race than on other demographic factors.

**TABLE 1.6 ACTIVE DUTY ENLISTED APPLICANTS WHO RECEIVED A MEDICAL EXAMINATION IN 2000–2004 VS 2005: EDUCATION LEVEL**

Education Level at MEPS	2000–2004				2005			
	Applicants		Accessions		Applicants		Accessions	
	Count	%	Count	%	Count	%	Count	%
Below HS Senior*	37,237	3.2	21,879	2.8	5,592	2.9	1,420	1.9
HS senior	379,829	32.4	247,798	31.9	62,657	32.7	20,020	27.0
HS diploma	715,943	61.0	483,901	62.3	116,935	60.9	50,464	67.9
Some College	11,124	0.9	7,079	0.9	1,881	1.0	715	1.0
Bachelor's and above	29,672	2.5	15,739	2.0	4,789	2.5	1,648	2.2
Missing	3,836	-	2,714	-	542	-	222	-
Total	1,177,641	-	779,110	-	192,396	-	74,489	-
Total (Non-missing)	1,173,805	100.0	776,396	100.0	191,854	100.0	74,267	100.0

\*Encompasses the following: 1) those pursuing completion of the GED or other test-based high school equivalency diploma, vocational school, or secondary school, etc; 2) those not attending high school and who are neither a high school graduate nor an alternative high school credential holder; 3) one who is attending high school and is not yet a senior.

Table 1.7 shows the AFQT scores by percentile for applicants and accessions, comparing the time period of 2000-2004 to 2005. In 2005, the distribution of AFQT scores was similar between applicants and accessions, consistent with observations from previous years. However, both the applicant and accession populations in 2005 have higher percentages of individuals in the lowest percentile group than in the 2000-2004 period. In particular, 8.1% of applicants in 2005 came from the 11-29 percentile group, as compared to 4.2% in the previous 5-year period. 7.9% of accessions in 2005 were among individuals scoring in the 11-29 percentile group, compared to 2.8% during 2000-2004. This might reflect an increased willingness to consider applicants from the lower aptitude categories. Note that AFQT is a nationally normed test, so the score distribution among all applicants would not necessarily mirror the percentile ranges. Applicants scoring in the 1-10 percentile range are not allowed to proceed to the medical examination process, and are therefore not included in this table.

**TABLE 1.7 ACTIVE DUTY ENLISTED APPLICANTS WHO RECEIVED A MEDICAL EXAMINATION IN 2000-2004 vs 2005: AFQT SCORE**

AFQT Percentile	2000-2004				2005			
	Applicants		Accessions		Applicants		Accessions	
	Count	%	Count	%	Count	%	Count	%
93-99	58,503	5.0	39,348	5.1	11,038	5.8	4,563	6.1
65-92	405,520	34.6	278,308	35.8	65,756	34.4	25,909	34.8
50-64	313,134	26.7	211,875	27.2	45,782	24.0	17,847	24.0
30-49	345,313	29.5	226,568	29.1	52,900	27.7	20,284	27.2
11-29*	48,910	4.2	21,934	2.8	15,476	8.1	5,864	7.9
Missing	6,261	-	1,077	-	1,444	-	22	-
Total	1,177,641	-	779,110	-	192,396	-	74,489	-
Total (Non-missing)	1,171,380	100.0	778,033	100.0	190,952	100.0	74,467	100.0

\*Individuals scoring in the 10 percentile or lower are prohibited from accession.

The medical qualification status of applicants and accessions in 2005 as compared to applicants and accessions between 2000 and 2004 is shown in table 1.8. The percentage of applicants and accessions within each category of medical qualification status in 2005 appears to be consistent with the mean percentages observed from 2000 to 2004. Approximately 82% of applicants in 2005 and 88% of accessions were classified as medically qualified for enlisted service.

Approximately 11.5% of applicants in 2005 received a temporary medical disqualification, whereas only about 8% of accessions were of individuals who received a temporary medical disqualification. It can be seen that the within-year accession rates, defined by the ratio of accessions over applicants, were similar for those who received permanent medical disqualifications ( $3,244/13,375=24.3\%$ ) and those who received temporary disqualifications ( $5,893/22,064=26.7\%$ ) in 2005. These rates were both considerably lower than that for medically qualified applicants (42%). Further information regarding accessions following medical waivers is presented in the section "Medical Waivers".

**TABLE 1.8 ACTIVE DUTY ENLISTED APPLICANTS WHO RECEIVED A MEDICAL EXAMINATION IN 2000–2004 vs 2005: MEDICAL DISQUALIFICATION**

Status	2000–2004				2005			
	Applicants		Accessions		Applicants		Accessions	
	Count	%	Count	%	Count	%	Count	%
Qualified	941,424	79.9	679,949	87.3	156,957	81.6	65,352	87.7
Permanent	84,741	7.2	31,751	4.1	13,375	7.0	3,244	4.4
Temporary	151,476	12.9	67,410	8.7	22,064	11.5	5,893	7.9
Total	1,177,641	100.0	779,110	100.0	192,396	100.0	74,489	100.0

## Reserve Applicants at MEPS without Accession Records

Tables 1.9-1.15 describe the features of applicants for the enlisted reserves of the Army, Navy, Marines, and Air Force. Data on reserve applicants who underwent medical examinations at any MEPS are shown for the period from 2000 to 2004 in aggregate and separately for 2005. These results include only civilians applying for the reserves and do not include direct accessions from active duty military.

The number of reserve applicants, by service, between the years of 2000 and 2005 is shown in table 1.9. Though the number of applicants fluctuates from year to year, there is no noticeable trend in the number of applicants to any branch of the reserves with the exception of the Marines. Among Marine reservists the number of applicants has shown a slight downward trend in the years between 2000 and 2005. Notably, the Navy reserves had an unusually large number of applicants in 2005. There was nearly double the number of applicants in 2005 than in 2000, the year with the highest number of applicants in the period from 2000 to 2004. It is not clear whether this dramatic increase observed in Navy reserve applicants represents a true increase in the number of applicants or if it is due to some other cause, such as random fluctuation in the number of reserve applicants.

**TABLE 1.9 RESERVE APPLICANTS AT MEPS WHO RECEIVED A MEDICAL EXAMINATION  
IN 2000–2005: SERVICE**

Year	Army	Navy	Marines	Air Force
2000	27,034	2,137	7,857	2,578
2001	23,083	1,845	7,507	3,121
2002	23,691	1,823	5,997	3,656
2003	24,990	2,100	5,508	4,180
2004	18,436	1,919	5,118	3,746
2005	20,190	4,229	5,163	3,254
Total	137,424	14,053	37,150	20,535

Tables 1.10-1.13 describe the demographics of reserve applicants at MEPS. Most reserve applicants in 2005 were male (76.9%), between the ages of 17 and 20 (57.7%), and white (76.8%). More male applicants were observed in 2005 as compared to previous years (76.9% and 73.9% respectively). A larger percentage of applicants were 30 years or older in 2005 relative to previous years (20.3% and 8.1% respectively) and fewer applicants were between the ages of 17 and 20 than in previous years (57.7% vs. 69.0%). More whites applied in 2005 while fewer non-whites applied than in previous years. About 60% of reserve applicants had at least a high school education, and approximately 25% were high school seniors at the time of application. In addition, among the 2005 applicants there was a higher percentage of high school graduates and a smaller percentage of high school seniors than observed in previous years.

**TABLE 1.10 RESERVE APPLICANTS AT MEPS WHO RECEIVED A MEDICAL EXAMINATION IN 2000–2004 vs 2005: GENDER**

Gender	2000–2004 Applicants		2005 Applicants	
	Count	Percent	Count	Percent
Male	130,307	73.9	25,253	76.9
Female	46,018	26.1	7,583	23.1
Missing	1	-	-	-
Total	176,326	-	32,836	-
Total (Non-missing)	176,325	100.0	32,836	100.0

**TABLE 1.11 RESERVE APPLICANTS AT MEPS WHO RECEIVED A MEDICAL EXAMINATION IN 2000–2004 vs 2005: AGE**

Age	2000–2004 Applicants		2005 Applicants	
	Count	Percent	Count	Percent
17–20 yr	121,566	69.0	18,921	57.7
21–25 yr	28,580	16.2	5,162	15.7
26–30 yr	11,752	6.7	2,066	6.3
>30 yr	14,351	8.1	6,668	20.3
Missing	77	-	19	-
Total	176,326	-	32,836	-
Total (Non-missing)	176,249	100.0	32,817	100.0

**TABLE 1.12 RESERVE APPLICANTS AT MEPS WHO RECEIVED A MEDICAL EXAMINATION IN 2000–2004 vs 2005: RACE**

Race	2000–2004 Applicants		2005 Applicants	
	Count	Percent	Count	Percent
White	117,422	70.7	18,646	76.8
Black	33,259	20.0	3,733	15.4
Other	15,390	9.3	1,913	7.9
Missing*	10,255	-	8,544	-
Total	176,326	-	32,836	-
Total (Non-missing)	166,071	100.0	24,292	100.0

\*Note: A much higher number of applicants declined to provide information on race than on other demographic factors.

**TABLE 1.13 RESERVE APPLICANTS AT MEPS WHO RECEIVED A MEDICAL EXAMINATION IN 2000–2004 VS 2005: EDUCATION LEVEL**

Education level at examination	2000–2004 Applicants		2005 Applicants	
	Count	Percent	Count	Percent
Below HS senior*	21,138	12.0	3,737	11.4
HS senior	44,741	25.4	6,441	19.6
HS diploma	99,176	56.3	19,972	60.9
Some college	2,703	1.5	708	2.2
Bachelor and above	8,343	4.7	1,934	5.9
Missing	225	-	44	-
Total	176,326	-	32,836	-
Total (Non-missing)	176,101	100.0	32,792	100.0

\*Encompasses the following: 1) those pursuing completion of the GED or other test-based high school equivalency diploma, vocational school, or secondary school, etc; 2) those not attending high school and who are neither a high school graduate nor an alternative high school credential holder; 3) one who is attending high school and is not yet a senior.

Table 1.14 shows the distribution of AFQT scores among enlisted reserve applicants at MEPS. The percent of applicants that scored at or below the 29th percentile increased from 4.0% in previous years to 9.4% in 2005. This might reflect an increased willingness to consider applicants from the lower aptitude categories. Accordingly, each of the other categories accounts for a slightly smaller percentage of the total in 2005 than in previous years. Note that this is a nationally normed test, and some applicants who performed poorly may have had their applications terminated before receiving medical examinations at the MEPS. Therefore, the percentage distributions do not necessarily match the percentile ranges. For example, only 9.4% of applicants scored below the thirtieth percentile.

**TABLE 1.14 RESERVE APPLICANTS AT MEPS WHO RECEIVED A MEDICAL EXAMINATION IN 2000–2004 VS 2005: AFQT SCORE**

AFQT Score Percentile	2000–2004 Applicants		2005 Applicants	
	Count	Percent	Count	Percent
93–99	12,006	7.0	2,189	7.3
65–92	64,704	37.5	10,244	34.3
50–64	42,143	24.4	6,629	22.2
30–49	46,798	27.1	7,994	26.8
11–29*	6,978	4.0	2,798	9.4
Missing	3,697	-	2,982	-
Total	176,326	-	32,836	-
Total (Non-missing)	172,629	100.0	29,854	100.0

\*Individuals scoring in the 10 percentile or lower are prohibited from applying.

The medical qualification status of the applicants for enlisted reserve is shown in table 1.15. There was a small increase in the percent of permanent medical disqualifications in 2005 when compared to previous years. However, in 2005, the percent of applicants who were considered medically qualified was similar to previous years. The majority of applicants (79.1%) were considered medically qualified following examination. Among the medical disqualifications, the majority were temporary disqualifications, i.e. for remediable conditions such as being overweight or recent marijuana use.

**Table 1.15 RESERVE APPLICANTS AT MEPS WHO RECEIVED A MEDICAL EXAMINATION IN 2000–2004 vs 2005: MEDICAL DISQUALIFICATIONS**

Medical disqualification	2000–2004		2005	
	Count	%	Count	%
Qualified	140,097	79.5	25,972	79.1
Permanent	13,866	7.9	3,011	9.2
Temporary	22,363	12.7	3,853	11.7
Total	176,326	100.0	32,836	100.0

## Army and Air National Guard Applicants at MEPS without Accession Records

Tables 1.16-1.22 describe the characteristics of applicants in the enlisted National Guard of the Army and Air Force. The Navy and Marines do not have a National Guard component. These tables include National Guard applicants who received a medical examination at MEPS in 2000-2004 (in aggregate) and in 2005. Civilian applicants are the only National Guard applicants included in these tables. Direct accessions from the active duty military into the National Guard are not included.

The number of civilian applicants to the Army and Air National Guard for each year between 2000 and 2005 are shown in table 1.16. There were more Army National Guard applicants in 2005 than in 2004. However, the number of 2005 Army National Guard applicants is consistent with the number of applicants recorded in the years from 2000 to 2003. In the Air National Guard, the number of 2005 applicants was similar to the number of 2004 applicants, though the number of applicants in either year is lower than the number of applicants for each year between 2000 and 2003.

**TABLE 1.16 ARMY AND AIR NATIONAL GUARD APPLICANTS AT MEPS  
WHO RECEIVED A MEDICAL EXAMINATION IN 2000–2005: SERVICE**

Year	Army National Guard	Air National Guard
2000	37,400	5,028
2001	38,379	5,865
2002	36,923	5,268
2003	36,067	5,466
2004	31,713	4,181
2005	37,837	4,341
Total	218,319	30,149

Tables 1.17-1.20 describe the demographics of National Guard applicants for the year 2005 relative to the aggregate demographic characteristics of applicants between 2000 and 2004. In 2005, most applicants were male (78.5%), aged 17-20 (65.2%), and white (79.0%). The majority of applicants were high school graduates (53.4%) at the time of application, and most of the remaining applicants were in their senior year of high school at the time of application. When comparing 2005 to the applicants of previous years, there are some shifts in the demographics. The percentage of applicants who were males increased slightly from previous years. Further, there was a smaller percentage of applicants from the 17-20 years old age range and a significantly larger percentage of applicants in the over 30 age category. A higher percentage of the applicants were white and a smaller percentage of applicants were black.

**TABLE 1.17 ARMY AND AIR NATIONAL GUARD APPLICANTS AT MEPS  
WHO RECEIVED A MEDICAL EXAMINATION IN 2000–2004 VS 2005: GENDER**

Gender	2000–2004 Applicants		2005 Applicants	
	Count	Percent	Count	Percent
Male	158,617	76.9	33,125	78.5
Female	47,672	23.1	9,052	21.5
Missing	1	-	1	-
Total	206,290	-	42,178	-
Total (Non-missing)	206,289	100.0	42,177	100.0

**TABLE 1.18 ARMY AND AIR NATIONAL GUARD APPLICANTS AT MEPS  
WHO RECEIVED A MEDICAL EXAMINATION IN 2000–2004 VS 2005: AGE**

Age	2000–2004 Applicants		2005 Applicants	
	Count	Percent	Count	Percent
17–20 yr	146,444	71.0	27,504	65.2
21–25 yr	32,202	15.6	6,112	14.5
26–30 yr	12,925	6.3	2,344	5.6
>30 yr	14,635	7.1	6,211	14.7
Missing	84	-	7	-
Total	206,290	-	42,178	-
Total (Non-missing)	206,206	100.0	42,171	100.0

**TABLE 1.19 ARMY AND AIR NATIONAL GUARD APPLICANTS AT MEPS  
WHO RECEIVED A MEDICAL EXAMINATION IN 2000–2004 VS 2005: RACE**

Race	2000–2004 Applicants		2005 Applicants	
	Count	Percent	Count	Percent
White	149,011	77.2	21,904	79.0
Black	30,181	15.6	3,658	13.2
Other	13,788	7.1	2,174	7.8
Missing	13,310	-	14,442	-
Total	206,290	-	42,178	-
Total (Non-missing)	192,980	100.0	27,736	100.0

\*Note: A much higher number of applicants declined to provide information on race than on other demographic factors.

**TABLE 1.20 ARMY AND AIR NATIONAL GUARD APPLICANTS AT MEPS WHO RECEIVED A MEDICAL EXAMINATION IN 2000–2004 VS 2005: EDUCATION LEVEL**

Education level at examination	2000–2004 Applicants		2005 Applicants	
	Count	Percent	Count	Percent
Below HS senior*	33,368	16.2	8,380	20.0
HS senior	51,761	25.2	8,911	21.3
HS diploma	110,464	53.8	22,386	53.4
Some College	3,066	1.5	700	1.7
Bachelor's and above	6,844	3.3	1,533	3.7
Missing	787	-	268	-
Total	206,290	-	42,178	-
Total (Non-missing)	205,503	100.0	41,910	100.0

\*Encompasses the following three cases: 1) one who is pursuing completion of the GED or other test-based high school equivalency diploma, vocational school, or secondary school, etc; 2) one who is not attending high school and who is neither a high school graduate nor an alternative high school credential holder; 3) one who is attending high school and is not yet a senior.

Table 1.21 shows the distribution of AFQT scores among Army and Air National Guard enlistee applicants. 86% of applicants scored above the thirtieth percentile in 2005. There were some slight variations in the distribution of scores when comparing 2005 applicants to applicants from previous years. The percentage of applicants scored in the lowest percentile in 2005 (13.8%) was higher than in previous years (6.8%). This change in the distribution of AFQT scores might reflect an increased willingness of the National Guard to consider applicants from the lower aptitude categories.

**TABLE 1.21 ARMY AND AIR NATIONAL GUARD APPLICANTS AT MEPS WHO RECEIVED A MEDICAL EXAMINATION IN 2000–2004 vs 2005: AFQT SCORE**

AFQT Score Percentile	2000–2004 Applicants		2005 Applicants	
	Count	Percent	Count	Percent
93–99	10,427	5.3	1,851	4.8
65–92	64,391	32.5	10,867	28.1
50–64	44,039	22.2	8,258	21.4
30–49	65,788	33.2	12,306	31.9
11–29*	13,394	6.8	5,334	13.8
Missing	8,251	-	3,562	-
Total	206,290	-	42,178	-
Total (Non-missing)	198,039	100.0	38,616	100.0

\*Individuals scoring in the 10 percentile or lower are prohibited from applying.

The medical qualification status of National Guard applicants is shown in table 1.22 for the year 2005 and the years 2000-2004. Most applicants in 2005 were classified as medically qualified (75.0%). Of those who were disqualified based on a medical condition, the majority (15.4%) were temporary disqualifications, i.e. for remediable conditions such as being overweight or recent marijuana use. In general, the distribution of medical disqualification among applicants to the National Guard in 2005 was similar to the period from 2000-2004.

**TABLE 1.22 NATIONAL GUARD APPLICANTS AT MEPS WHO RECEIVED A MEDICAL EXAMINATION IN 2000–2004 VS 2005: MEDICAL DISQUALIFICATION**

Disqualification	2000–2004		2005	
	Count	%	Count	%
Qualified	155,992	75.6	31,625	75.0
Permanent	16,441	8.0	4,048	9.6
Temporary	33,857	16.4	6,505	15.4
Total	206,290	100.0	42,178	100.0

## Medical Disqualifications Among Applicants for First-Time Active Duty Enlisted Service

Table 1.23 shows the medical disqualifications among applicants for active duty enlisted service during the period between 2002 and 2004, and separately for 2005 according to the ICD9 code assigned to each disqualifying condition. These conditions are ranked according to the number of disqualifications in 2005. Some disqualified individuals have more than one disqualifying medical condition; therefore, the number of disqualifications is greater than the number of individuals disqualified.

The most frequently disqualifying conditions, exceeding the weight/body fat limits and *Cannabis* abuse, are considered temporary disqualifications and can be remedied. Exceeding the weight/body fat limits was the most common reason for medical disqualification in 2005, accounting for 21.8% of all disqualifications, consistent with the observed disqualification numbers in the period from 2002 to 2004. Abuse of *cannabis* is the second most common reason for medical disqualification, accounting for 8.9% of disqualifications in 2005, down from 10.4% in the period between 2002 and 2005. The third and fourth most common conditions in 2005 were hearing loss (5.0%) and disorders visual refraction (4.3%), all of which are permanently disqualifying conditions. Though hearing loss was also the third leading cause of disqualification in the period between 2002 and 2004, disorders of visual refraction was surpassed by asthma as the fourth leading cause of disqualification in this period.

**TABLE 1.23 MEDICAL DISQUALIFICATIONS BY ICD-9 CODE: 2002 TO 2005**

Condition*	2002-2004		2005	
	Count	%	Count	%
Exceeding weight/body fat limits	47,762	21.8	14,098	21.8
<i>Cannabis</i> abuse	22,849	10.4	5,756	8.9
Hearing Loss	11,094	5.1	3,229	5.0
Disorders of visual refraction	8,341	3.8	2,793	4.3
Underweight	5,978	2.7	1,770	2.7
Asthma	10,429	4.8	1,766	2.7
Disorders of the bone/cartilage	4,555	2.1	1,504	2.3
Hypertension	4,763	2.2	1,281	2.0
Cocaine abuse	3,692	1.7	1,087	1.7
Neurotic	3,433	1.6	1,062	1.6
Attention Deficit Hyperactivity Disorder (ADHD)	3,536	1.6	775	1.2
Cardiovascular symptoms	2,436	1.1	769	1.2
Pregnancy	2,627	1.2	636	1.0
Nonspecific abnormal findings	1,426	0.7	597	0.9
Inguinal hernia	1,739	0.8	570	0.9
Abuse of other drugs	1,446	0.7	553	0.9
Depressive disorder	1,446	0.7	528	0.8
Spinal curvature	1,106	0.5	478	0.7
Eye surgery	985	0.4	354	0.5
Visual disturbances	470	0.2	131	0.2
Blind/low vision	116	0.1	15	0.0
All Other	78,697	35.9	24,959	38.6
Total disqualifications	218,926	100.0	64,711	100.0
Total individuals disqualified	198,128		56,537	

\*Categorized according to ICD-9 diagnostic codes

Table 1.24 shows the medical disqualifications among applicants for active duty enlisted service during the period between 2002 and 2004, and separately for 2005 according to MEPCOM medical condition categories. These conditions are ranked according to the number of disqualifications in 2005. Some disqualified individuals have more than one disqualifying medical condition; therefore, the number of disqualifications is greater than the number of individuals disqualified.

As was seen in the more specific categorization above, body build and drug use are the leading categories of disqualification; these are generally considered temporarily disqualifying conditions that can be remediated by the applicant without need for an accession waiver.

**TABLE 1.24 MEDICAL DISQUALIFICATIONS BY MEPCOM CODES: 2002 TO 2005**

Condition*	2002-2004		2005	
	Count	%	Count	%
Weight, body build	52,458	24.4	15,710	25.1
Drugs	26,276	12.2	6,766	10.8
Psychiatric	13,376	6.2	3,757	6.0
Lower Extremities (except feet)	12,619	5.9	3,455	5.5
Audiometer (hearing)	11,525	5.4	3,297	5.3
Skin, lymphatic, allergies	8,041	3.7	6,244	4.2
Lungs and chest (includes breasts)	12,973	6.0	2,502	4.0
Refraction	7,532	3.5	2,500	4.0
Upper extremities	8,572	4.0	2,487	4.0
Blood pressure	6,541	3.0	2,098	3.4
Abdomen and viscera (includes hernia)	5,137	2.4	1,660	2.7
Eyes – general (visual acuity and refraction)	3,530	1.6	1,377	2.2
Feet	5,414	2.5	1,358	2.2
External genitalia (genitourinary)	4,438	2.1	1,295	2.1
Spine, other musculoskeletal	3,792	1.8	1,186	1.9
Neurologic	3,235	1.5	920	1.5
Heart (thrust, size, rhythm, sounds)	2,695	1.3	862	1.4
Pulse	2,216	1.0	714	1.1
Dental defects and disease	1,478	0.7	693	1.1
Pregnancy	2,523	1.2	671	1.1
Other	20,615	9.6	6,599	10.5
Total disqualifications	214,986	100.0	62,551	100.0
Total individuals disqualified	198,183		56,548	

## Accession Medical Waivers

Applicants who receive a permanent medical disqualification at the MEPS may be granted an accession medical waiver for the disqualifying condition(s) from a service-specific waiver authority. This section summarizes the numbers of waiver considerations from 2000-2005. Part I examines all waiver consideration records, regardless of whether a corresponding accession record is in the MEPS data. This section thus addresses the spectrum of waiver applications seen by the waiver authorities. Part II examines only those waiver records for which a matching accessions record is in the DMDC data. This section describes the medically disqualifying conditions among enlistees who were accessed after receiving an accession medical waiver.

Individuals frequently have multiple records of waiver consideration by the same service waiver authority, likely reflecting resubmissions, perhaps with additional information. Only the most current record on each individual for a particular service was considered in these analyses. Therefore, the numbers of considerations do not reflect the overall workload of waiver authorities. Note that a waiver application that is denied by one waiver authority might be submitted to another. In such a case, the individual would be counted twice in the tables.

### ***Part I: Medical Waivers Irrespective of Accession Record***

Accession medical waiver considerations for active duty enlisted applicants in 2000-2005 are summarized for the Army, Navy, Marines, and Air Force. All waiver considerations are included regardless of whether AMSARA has a corresponding MEPS record or whether the individual subsequently became an accession. Note that only waiver applications are summarized, and those applicants who are granted waivers may or may not become accessions. Table 1.25 shows the raw count of waiver considerations and approval percentages by branch of service and year of waiver decision. Approval percentages represent the portion of the total waivers considered, listed in the tables as "Count", which were approved. Note that a waiver can be denied by one service's waiver authority but granted by another, so the potential for counting individuals twice cannot be excluded.

**TABLE 1.25 WAIVER CONSIDERATIONS FOR ACTIVE DUTY APPLICANTS BY YEAR AND SERVICE\***

Year	Army		Navy		Marines		Air Force	
	Count	% Approved	Count	% Approved	Count	% Approved	Count	% Approved
2000	11,696	67.0	6,208	50.7	3,416	56.0	2,147	41.1
2001	11,341	60.8	5,288	44.3	3,118	44.0	2,378	55.1
2002	14,938	61.7	5,402	45.3	3,124	45.8	3,068	51.6
2003	14,327	61.6	5,736	56.0	3,522	59.1	3,650	49.7
2004	12,965	58.0	5,144	60.8	3,423	67.9	1,908	62.8
2005	13,250	55.5	6,300	66.6	4,086	66.3	1,929	50.4
Total	78,517		34,078		20,689		15,080	

\*Counts include only those records for which a waiver decision/recommendation was rendered.

In the years between 2000 and 2005, no general trend in the number of waiver considerations by the Army waiver authority is apparent. The number of waivers considered by the Navy authority has remained relatively constant during this time period, though the number of considerations in 2005 (6,300) is markedly higher than the considerations in 2004 (5,144). Overall, the number of waivers considered by the Air Force authority has decreased since 2000 despite an increase in 2002-2003. The percent of waivers approved by the Army authority has decreased during this time frame. Meanwhile, the other three branches of service had generally higher approval percentages in 2004 and 2005 than in previous years.

Tables 1.26-1.29 show the medical conditions for which waivers were considered and granted, ranked by waivers most commonly applied for in 2005, for each branch of service. Waiver considerations from the years 2000 to 2004 are shown in aggregate to facilitate the compare waivers in the year 2005 to previous years. Medical condition categories for the Army and Air Force were created using the first three digits of the ICD-9 code assigned to each waiver consideration. Navy and Marine waiver authorities use ICD-9 codes limited to those appearing in DoD Instruction 6130.4.

Enlisted accession waiver considerations and approvals for the Army are shown in table 1.26. Hearing loss was the most common medical disqualification for which waivers were sought in 2005, encompassing 10.7% of all waivers sought. Disorders of visual refraction/accommodation was the second leading medical condition for which waivers were sought, and constituted 8.1% of all waivers sought by Army applicants. Though the ranks of these conditions were consistent with the rank order observed between 2000 and 2004, the percentage of waivers sought for both hearing deficiencies and disorders of visual refraction/accommodation were slightly higher in 2005 relative to previous years. When examining waivers granted in 2005, disorders of visual refraction/accommodation was the condition with the highest percent of approvals (10.6%) followed by hearing deficiencies (8.4%). Disorders of the bone and cartilage was the third most common condition prompting application for medical waivers in 2005 (7.3%), followed by the condition of nonspecific abnormal findings (6.0%). Asthma was the third most commonly sought and granted waiver in previous years (7.4% and 8.8%), but the percentage of waivers for asthma in 2005 dropped significantly (4.5% and 1.9%). The decrease in asthma waivers likely reflects a relaxation of the asthma standard that took effect in June of 2004. It can also be seen that the percentage of sought and approved waivers for disorders of the bone and cartilage increased from 1.4% of all waivers and 1.9% of granted waivers in 2000-2004 to 4.7% and 7.3% in 2005.

The distribution of waivers sought as well as the distribution of waivers approved also differed for some other categories in 2005 from those in 2000-2004. Applications and approvals of waivers for internal derangement of the knee comprise a smaller percentage of applications (1.8%) and waivers (1.6%) than in previous years (2.8% and 3.5% respectively). The reverse is true of waiver applications for non-specific abnormal findings. In previous years, the percentage of applications for waivers and approvals for non-specific abnormal findings (1.8% and 2.7% respectively) was much lower than what was observed in 2005, when 3.6% of applications for waivers and 6.0% of approvals were for this condition. However, these differences may represent a change in the coding of these conditions and may not reflect an actual change in the population seeking waivers or the authorities granting waivers.

**TABLE 1.26 TOP CONDITIONS FOR ENLISTED ACCESSION WAIVERS CONSIDERED IN 2000–2004 vs 2005: ARMY\***

Condition	2000–2004				2005			
	Applied	% of total	Granted	% of total granted	Applied	% of total	Granted	% of total granted
Hearing loss	6,702	10.3	4,690	11.6	1,420	10.7	617	8.4
Disorders of refraction and accommodation (visual)	5,055	7.7	3,993	9.9	1,069	8.1	779	10.6
Disorders of bone/cartilage	933	1.4	756	1.9	624	4.7	534	7.3
Asthma	4,801	7.4	3,562	8.8	597	4.5	139	1.9
Nonspecific abnormal findings	1,153	1.8	1,088	2.7	478	3.6	442	6.0
Neurotic disorders (nonpsychotic)	1,084	1.7	446	1.1	358	2.7	114	1.5
Internal derangement of knee	1,834	2.8	1,419	3.5	238	1.8	115	1.6
Unspecified disorders of joint	826	1.3	457	1.1	216	1.6	79	1.1
Cardiovascular symptoms	794	1.2	712	1.8	207	1.6	179	2.4
Congenital musculoskeletal deformities	1,256	1.9	969	2.4	216	1.6	110	1.5
ADHD	1,180	1.8	1,041	2.6	203	1.5	124	1.7
Disorders of the back	554	0.8	250	0.6	157	1.2	44	0.6
Depressive disorder	583	0.9	319	0.8	157	1.2	63	0.9
Curvature of spine	530	0.8	293	0.7	158	1.2	62	0.8
Hypertension	717	1.1	402	1.0	131	1.0	14	0.2
Physiological malfunction arising from mental factors	1,020	1.6	1,016	2.5	80	0.6	76	1.0
Mycoses	759	1.2	706	1.8	5	0.0	4	0.1
Dislocation of shoulder	547	0.8	450	1.1	96	0.7	68	0.9
Dermatitis due to substances taken internally	517	0.8	472	1.2	65	0.5	58	0.8
Symptoms concerning nutrition, metabolism, and development	578	0.9	491	1.2	12	0.1	7	0.1
Other	33,844	51.9	16,753	41.6	6,763	51.0	3,732	50.7
Total	65,267		40,285		13,250		7,360	

Numbers represent numbers of waivers granted, and not necessarily the number of individuals with a granted waiver.

Table 1.27 shows the conditions for which waivers were considered by the Navy waiver authority during 2000–2004 and separately during 2005. Disorders of refraction/accommodation was the leading condition for which waivers were sought in 2005 (8.7% of all waiver applications), followed by disorders of bone/cartilage (6.6%) and asthma (5.5%). These three conditions were also the most common waiver considerations during 2000–2004, although the ordering was different, with asthma being the most common during this time period.

**TABLES 1.27 TOP CONDITIONS FOR ENLISTED ACCESSION WAIVERS CONSIDERED IN 2000–2004 vs 2005:  
NAVY**

Condition	2000–2004				2005			
	Applied	% of total	Granted	% of total granted	Applied	% of total	Granted	% of total granted
Disorders of refraction/accommodation	2,436	8.8	1,490	10.4	549	8.7	399	9.5
Disorders of bone/cartilage	1,376	5.0	1,003	7.0	418	6.6	366	8.7
Asthma	2,780	10.0	1,047	7.3	347	5.5	238	5.7
Adverse effects following injury	691	2.5	420	2.9	178	2.8	132	3.1
Nonspecific abnormal findings	620	2.2	298	2.1	153	2.4	96	2.3
Curvature of spine	405	1.5	134	0.9	101	1.6	43	1.0
ADHD	670	2.4	404	2.8	96	1.5	56	1.3
Cardiovascular symptoms	406	1.5	342	2.4	94	1.5	79	1.9
Internal derangement of knee	489	1.8	331	2.3	92	1.5	79	1.9
Contact dermatitis and other eczema	264	1.0	164	1.1	89	1.4	53	1.3
Abnormal histological and immunological findings	565	2.0	445	3.1	81	1.3	58	1.4
Congenital musculoskeletal deformities	749	2.7	580	4.1	67	1.1	56	1.3
Hypertension	1,137	4.1	901	6.3	65	1.0	40	1.0
Psoriasis	264	1.0	135	0.9	55	0.9	16	0.4
Neurotic disorders (nonpsychotic)	394	1.4	149	1.0	42	0.7	18	0.4
Congenital anomalies of heart	357	1.3	146	1.0	42	0.7	34	0.8
Disturbance of emotions specific to childhood and adolescence	312	1.1	123	0.9	21	0.3	8	0.2
Peripheral enthesopathies and allied syndromes	242	0.9	142	1.0	13	0.2	8	0.2
Other	10,115	36.4	4,491	31.4	3,131	49.7	2,015	48.0
Total	27,778		14,282		6,300		4,196	

Table 1.28 shows the leading conditions for which waivers were considered by the Marines waiver authority. The most common condition for which medical waivers were sought by enlisted Marine applicants was nonspecific abnormal findings (9.0%) followed by hearing loss (8.2%), myopia (6.9%), asthma (6.7%), and disorders of the bone and cartilage (6.4%). Though the top conditions for which enlisted Marines sought medical waivers in 2005 were the same as the top conditions between 2000 and 2004, there were some changes in the frequency of these conditions over time. Asthma was the most common waiver sought in the period prior to 2005, accounting for 12.3% of waiver applications, followed by hearing loss (9.7%), myopia (7.8%), nonspecific abnormal findings (6.2%), and disorders of the bone and cartilage (5.8%). The decrease in the number of waivers for asthma is likely attributable to a relaxation of the asthma standard in June 2004, making 2005 the first complete year with this revised standard. Among these conditions, only applications for medical waivers due to nonspecific abnormal findings and disorders of the bone and cartilage were more common in 2005 relative to previous years.

**TABLES 1.28 TOP CONDITIONS FOR ENLISTED ACCESSION WAIVERS CONSIDERED IN 2000–2004 VS 2005: MARINES**

Condition	2000–2004				2005			
	Applied	% of total	Granted	% of total granted	Applied	% of total	Granted	% of total granted
Nonspecific abnormal findings	1,034	6.2	566	6.2	368	9.0	261	9.6
Hearing loss	1,603	9.7	348	3.8	335	8.2	196	7.2
Disorders of refraction and accommodation (visual)	1,296	7.8	769	8.4	282	6.9	203	7.5
Asthma	2,044	12.3	1,186	13.0	274	6.7	168	6.2
Disorders of the bone/cartilage	962	5.8	779	8.5	262	6.4	225	8.3
Neurotic disorders (nonpsychotic)	424	2.6	229	2.5	181	4.4	105	3.9
Hypertension	838	5.0	644	7.1	137	3.4	112	4.1
ADHD	755	4.5	567	6.2	126	3.1	94	3.5
Eye surgery	215	1.3	171	1.9	97	2.4	82	3.0
Adverse effects of injury	340	2.0	184	2.0	89	2.2	73	2.7
Loose body in joint	197	1.2	61	0.7	79	1.9	27	1.0
Late effect of fracture to the lower extremity	187	1.1	107	1.2	73	1.8	56	2.1
Astigmatism	148	0.9	101	1.1	69	1.7	52	1.9
Cardiovascular symptoms	189	1.1	153	1.7	61	1.5	54	2.0
Internal derangement of knee	398	2.4	302	3.3	63	1.5	51	1.9
Valgus deformities of feet	367	2.2	247	2.7	57	1.4	43	1.6
Congenital anomalies of heart	244	1.5	133	1.5	43	1.1	20	0.7
Curvature of spine	202	1.2	56	0.6	46	1.1	25	0.9
Repair of joint structures	146	0.9	107.0	1.2	14	0.3	9	0.3
Other	5,014	30.2	2,412	26.5	1,430	35.0	853	31.5
Total	16,603		9,122		4,086		2,709	

Table 1.29 shows the most common conditions for which waivers were considered by the Air Force waiver authority. In addition to 2005 data, data from the years 2000 to 2004 is shown in aggregate for comparison. Disorders of visual refraction were the most common condition for which waivers were applied for in 2005, making up 12.3% of the applications for waivers. The second most common condition for which waivers were considered was asthma (6.0%), followed by hearing loss (4.8%), and ADHD (3.5%). In general, the conditions considered for waivers and the waiver approval percentages in 2005 differed slightly from previous years. There were, however, three conditions ('symptoms concerning nutrition metabolism and development', 'reduction of fracture and dislocation' and 'repair of ACL') for which no waiver considerations were reported in 2005. AMSARA will attempt to determine the reason for this finding.

**TABLES 1.29 TOP CONDITIONS FOR ENLISTED ACCESSION WAIVERS CONSIDERED IN 2000–2004 vs 2005: AIR FORCE**

Condition	2000–2004				2005			
	Applied	% of total	Granted	% of total granted	Applied	% of total	Granted	% of total granted
Disorders of refraction and accommodation (visual)	1,324	10.1	748	11.0	237	12.3	143	14.7
Asthma	1,058	8.0	408	6.0	116	6.0	30	3.1
Hearing loss	545	4.1	75	1.1	92	4.8	1	0.1
ADHD	657	5.0	495	7.3	68	3.5	54	5.6
Congenital musculoskeletal deformities	224	1.7	79	1.2	65	3.4	13	1.3
Affective psychoses	253	1.9	130	1.9	59	3.1	30	3.1
Unspecified disorders of joint	231	1.8	114	1.7	57	3.0	32	3.3
Derangement of joint	280	2.1	154	2.3	52	2.7	41	4.2
Contact dermatitis	190	1.4	32	0.5	42	2.2	5	0.5
Visual disturbances	172	1.3	80	1.2	39	2.0	26	2.7
Noninflammatory disorders of cervix	147	1.1	103	1.5	34	1.8	19	2.0
Pes Planus	222	1.7	157	2.3	29	1.5	25	2.6
Adjustment disorders	136	1.0	85	1.3	23	1.2	16	1.6
Osteochondropathies	123	0.9	57	0.8	21	1.1	10	1.0
Neurotic disorders (nonpsychotic)	95	0.7	58	0.9	20	1.0	10	1.0
Corneal opacity	96	0.7	16	0.2	13	0.7	2	0.2
Diseases of endocardium	94	0.7	38	0.6	13	0.7	6	0.6
Symptoms concerning nutrition, metabolism, and development	535	4.1	448	6.6	0	0.0	0	0.0
Reduction of fracture and dislocation	360	2.7	281	4.1	0	0.0	0	0.0
Repair of ACL	297	2.3	243	3.6	0	0.0	0	0.0
Other	6,112	46.5	2,988	44.0	949	48.9	509	52.4
Total	13,151		6,789		1,929		972	

Tables 1.30-1.33 show the top waiver consideration conditions ranked by waiver approval percentage over the period 2002-2005; results are shown by service over the entire period and in each year individually. Among enlisted Army accessions there were two conditions for which the waiver percentage exceeded 90% in 2005: physiological malfunction arising from mental factors (95.0%), nonspecific abnormal findings (92.5%). Navy waiver approval percentages in 2005 were in excess of 90% for several conditions. Retained hardware exhibited the highest waiver approval rate (95.6%) followed by ACL injury (95.2%), operations to cornea (91.6%), abnormal pap smear of the cervix (91.0%) and hydrocele (90.9%). Several conditions also had medical waiver approval rate exceeding 90% among enlisted Marine applicants in 2005, with highest approval percentages for tachycardia (98.5%), operations of cornea (95.6%), retained hardware (95.3%), elbow imitation of motion (94.7%), deformities, disease or chronic pain of upper extremities (92.1%), ACL injury (91.1%) and Hypertension (90%). The waiver approval rate did not exceed 90% in 2005 for any condition among Air Force enlistees. The most common waiver approval among Air Force applicants in 2005 was for pes planus (86.2%).

**TABLES 1.30 TOP CONDITIONS FOR ENLISTED ACCESSION WAIVERS APPROVED IN 2002-2005: ARMY**

Condition <sup>a</sup>	Total		2002		2003		2004		2005	
	Applied	% approved	Applied	% approved	Applied	% approved	Applied	% approved	Applied	% approved
Physiological malfunction arising from mental factors*	501	98.0	366	99.2	4	50.0	51	98.0	80	95.0
Nonspecific abnormal findings	1,719	93.4	132	82.6	608	96.2	501	93.6	478	92.5
Operations of cornea	731	90.4	58	93.1	101	95.0	173	88.4	399	89.7
Mycoses	635	90.2	233	89.7	242	90.9	155	90.3	5	80.0
Dermatitis due to substances taken internally	428	86.0	187	79.7	108	93.5	68	88.2	65	89.2
Cardiovascular symptoms	905	84.6	243	80.7	267	86.1	188	85.6	207	86.5
Disorders of bone/cartilage	2,736	83.1	659	85.4	765	81.4	688	80.5	624	85.6
ADHD	1,325	79.4	361	86.1	434	82.5	327	79.2	203	61.1
Symptoms concerning nutrition metabolism, and development	512	78.3	162	71.6	325	83.1	13	61.5	12	58.3
Contact Dermatitis and other eczema	556	76.6	126	83.3	148	74.3	133	73.7	149	75.8
Adverse effects of injury	580	74.0	109	65.1	158	71.5	146	74.7	167	81.4
Shoulder dislocation	481	72.1	151	74.2	119	73.9	115	68.7	96	70.8
Disorders of refraction and accommodation	4,812	70.4	1,387	67.9	1,268	69.6	1,088	72.2	1,069	72.9
Derangement of joint	482	67.6	100	69.0	116	77.6	159	64.2	107	60.7
Peripheral enthesopathies and allied syndromes	465	59.1	124	63.7	123	57.7	121	55.4	97	59.8
Internal derangement of knee	1,392	58.6	403	64.0	414	60.9	337	56.7	238	48.3

<sup>a</sup> Conditions considered may vary slightly from those in Table 1.26.

\* Psychogenic physical/physiological symptoms not involving tissue damage.

**TABLES 1.31 TOP CONDITIONS FOR ENLISTED ACCESSION WAIVERS APPROVED IN 2002–2005: NAVY**

Condition <sup>a</sup>	Total		2002		2003		2004		2005	
	Applied	% Approved	Applied	% Approved	Applied	% Approved	Applied	% Approved	Applied	% Approved
Operations of cornea	315	89.3	7	57.1	6	50.0	14	71.4	288	91.6
Tachycardia	417	88.6	74	82.4	109	90.3	106	92.1	128	88.1
Abnormal Pap smear of the cervix	333	87.6	45	51.1	106	95.0	92	96.2	90	91.0
Retained hardware, current	1,384	85.3	259	66.8	380	84.4	327	89.3	418	95.6
Hypertension	829	84.9	233	83.3	332	85.1	185	90.2	79	75.8
Hydrocele	121	81.0	26	76.9	29	71.4	30	82.8	36	90.9
Pes planus, congenital	408	80.8	111	77.5	127	77.3	94	84.1	76	87.5
Shoulder dislocation	172	80.6	32	53.1	17	93.8	30	76.7	93	89.7
ACL injury	305	80.0	44	45.5	65	74.1	104	86.7	92	95.2
Astigmatism	224	76.9	0	0.0	58	63.6	116	78.1	50	89.4
Shoulder limitation of motion	214	71.1	50	54.0	106	73.7	39	82.4	19	86.7
Elbow imitation of motion	110	70.3	20	50.0	43	64.9	22	81.0	25	87.0
Eczema	277	69.5	46	73.9	58	67.3	64	75.0	109	65.3
Deformities of the toes	104	66.7	38	65.8	29	65.5	20	63.2	17	75.0
Vision loss	277	65.4	10	60.0	92	54.7	68	56.1	107	82.6
Myopia	2,116	65.0	588	60.7	499	58.2	435	56.7	594	77.9

<sup>a</sup> Conditions considered may vary slightly from those in Table 1.27.

**TABLES 1.32 TOP CONDITIONS FOR ENLISTED ACCESSION WAIVERS APPROVED IN 2002–2005: MARINES**

Condition <sup>a</sup>	Total		2002		2003		2004		2005	
	Applied	% Approved	Applied	% Approved	Applied	% Approved	Applied	% Approved	Applied	% Approved
Tachycardia	220	92.1	34	82.4	56	88.5	59	94.2	71	98.5
Operations of Cornea	287	90.9	1	-	90	89.7	92	88.1	104	95.6
Retained hardware	952	90.2	148	81.1	252	87.3	294	93.3	258	95.3
Deformities, disease or chronic pain of upper extremities	103	86.3	10	50.0	8	62.5	9	100.0	76	92.1
ACL injury	203	84.6	45	71.1	44	80.5	51	93.5	63	91.1
Hypertension	795	83.1	150	70.0	268	82.3	209	89.1	168	90.0
Repair and plastic operations on joint structures	213	83.1	7	71.4	73	74.2	75	89.6	58	87.8
Academic skills defects	828	81.5	153	68.0	283	82.9	233	89.2	159	82.0
Elbow limitation of motion	64	79.0	13	69.2	16	68.8	15	78.6	20	94.7
Astigmatism	216	78.8	8	50.0	30	58.6	95	86.5	83	80.5
Fingers and thumb limitation of Motion	80	74.6	27	63.0	23	73.7	22	89.5	8	83.3
Deformities, disease or chronic pain of lower extremities	216	72.6	36	55.6	39	61.5	51	70.8	90	87.2
Head injury	95	72.5	11	54.5	18	50.0	32	84.0	34	84.6
Pes planus, congenital	104	70.3	12	50.0	20	50.0	32	78.1	40	81.1
Pes planus, acquired	136	70.0	33	66.7	46	65.9	32	75.9	25	75.0
Myopia	1,064	67.9	259	55.2	265	64.2	241	72.6	299	79.9
Asthma	1,464	67.8	375	48.0	457	73.5	319	79.4	313	76.1

<sup>a</sup> Conditions considered may vary slightly from those in Table 1.28.

**TABLES 1.33 TOP CONDITIONS FOR ENLISTED ACCESSION WAIVERS APPROVED IN 2002–2005: AIR FORCE**

Condition <sup>a</sup>	Total		2002		2003		2004		2005	
	Applied	% Approved	Applied	% Approved	Applied	% Approved	Applied	% Approved	Applied	% Approved
Symptoms concerning nutrition metabolism, and development	523	89.0	107	96.3	190	69.2	226	99.1	0	0.0
Reduction of fracture and dislocation	258	78.2	146	89.6	95	61.0	17	58.8	0	0.0
ADHD	477	76.2	119	73.9	157	65.1	133	87.2	68	79.4
Pes planus	154	74.5	60	69.5	34	63.3	31	83.9	29	86.2
Repair and plastic operations on joint structures	135	74.2	78	83.6	52	59.5	5	60.0	0	0.0
Non-inflammatory disorders of cervix	155	72.8	54	90.2	37	56.3	30	80.0	34	55.9
Cardiovascular symptoms	55	72.2	11	81.8	9	75.0	10	70.0	25	68.0
Adjustment reaction	113	69.9	32	65.6	32	72.7	26	73.1	23	69.6
Derangement of joint	251	67.4	88	60.9	65	64.7	46	69.6	52	78.8
Visual disturbances	161	66.7	55	60.0	59	72.3	8	75.0	39	66.7
Open wound of toes	103	66.7	33	68.8	13	38.5	23	82.6	34	64.7
Disorders of bone/ cartilage	60	63.0	16	73.3	17	58.3	17	70.6	10	40.0
Disorders of refraction and accommodation	930	62.1	296	64.9	221	62.6	176	59.2	237	60.3
Congenital anomalies of genital organs	61	61.4	18	72.2	14	30.0	16	87.5	13	38.5
Anxiety, dissociative, and somatoform disorders	83	60.3	29	55.2	25	70.0	9	77.8	20	50.0
Cardiac anomalies	54	59.6	16	56.3	13	63.6	7	71.4	18	55.6
Disorders of joint	235	59.4	80	57.7	58	61.9	40	65.0	57	56.1
Episodic mood disorders	207	57.4	53	55.8	53	61.9	42	64.3	59	50.8
Hypertension	73	54.4	28	70.4	19	66.7	12	25.0	14	35.7
Diseases of endocardium	71	53.2	21	50.0	28	55.0	9	66.7	13	46.2

<sup>a</sup> Conditions considered may vary slightly from those in Table 1.29.

**Part II: Medical Waivers with an Accession Record**

Table 1.34 shows the numbers of applicants for enlisted service granted accession medical waiver approvals during each year from 2000-2005 for all service branches combined. Also shown are the numbers and percentages of these individuals who were subsequently gained onto active duty within one and two years of application at MEPS. The number of waiver approvals peaked at over 15,000 in 2003. Accession percentages of these applicants with an accession medical waiver were generally over 50% within one year of first application, with the exception of 2004 and 2005, though follow-up data were incomplete for this report.

**TABLE 1.34 ACTIVE DUTY ACCESSIONS WITHIN 1 AND 2 YEARS OF PHYSICAL EXAMINATION FOR ENLISTED APPLICANTS WHO RECEIVED A WAIVER IN 2000–2005: YEAR<sup>a</sup>**

Year of waiver consideration	Applicants with waivers granted	Applicants who accessed within 1 year of application		Applicants who accessed within 2 years of application	
		Count	Percent	Count	Percent
2000	11,580	6,657	57.5	7,648	66.0
2001	10,362	5,946	57.4	6,793	65.6
2002	13,175	7,525	57.1	8,765	66.5
2003	15,108	7,510	49.7	8,898	58.9
2004	13,496	6,225	46.1	7,265	53.8*
2005	13,555	5,564	41.0*	6,061	-
Total	77,276	39,427		45,430	

<sup>a</sup> Only granted waivers were considered.

\*The accession rate was underestimated owing to lack of follow up time.

Tables 1.35-1.38 describe the characteristics of applicants who were granted waivers from all branches of service. Individuals with a corresponding MEPS application record as well as subsequent accessions are shown for 2000-2004 and separately for 2005. Total numbers of records vary slightly depending upon the completeness of data on the demographic factor being considered. For example, an individual with missing data on gender, but not race, will be included in the description of race of applicants but not in the description of gender.

The gender distribution of enlisted applicants who received a waiver is shown in table 1.35 for all waivers and for those with subsequent accession records. In 2005 the distribution of gender among all waivers and accessions was slightly different from that observed between 2000 and 2004. In addition, females accounted for a slightly larger percentage of approved waivers than for subsequent accessions in both the 2000-2004 and 2005 time periods.

**TABLE 1.35 ACTIVE DUTY ENLISTED APPLICANTS WHO RECEIVED A WAIVER IN 2000-2004 vs 2005: GENDER**

Gender	2000–2004				2005			
	All waivers		Accessed only		All waivers		Accessed only	
	Count	%	Count	%	Count	%	Count	%
Male	51,650	81.1	35,251	83.0	11,362	83.8	5,494	84.9
Female	12,045	18.9	7,204	17.0	2,191	16.2	978	15.1
Missing	26	-	26	-	2	-	2	-
Total	63,721	-	42,481	-	13,555	-	6,474	-
Total (Non-missing)	63,695	100.0	42,455	100.0	13,553	100.0	6,472	100.0

Table 1.36 shows the age distribution of enlisted applicants who received a waiver in 2000-2004 and in 2005. The majority of waiver recipients in 2005 were between the ages of 17 and 20 years, regardless of whether or not they were subsequently accessed. However, the percentage of waiver recipients between the ages of 17 and 20 was smaller in 2005 than in the period from 2000-2004. Further, the percent of applicants over the age of 30 who received waivers was higher in 2005 than in previous years.

**TABLE 1.36 ACTIVE DUTY ENLISTED APPLICANTS WHO RECEIVED A WAIVER IN 2000-2004 vs 2005: AGE**

Age	2000-2004				2005			
	All waivers		Accessed only		All waivers		Accessed only	
	Count	%	Count	%	Count	%	Count	%
17-20 yr	44,827	70.7	31,185	74.0	8,745	64.9	4,598	71.9
21-25 yr	12,650	20.0	8,296	19.7	2,788	20.7	1,365	21.4
26-30 yr	3,878	6.1	2,065	4.9	885	6.6	315	4.9
>30 yr	2,044	3.2	620	1.5	1,050	7.8	114	1.8
Missing	322	-	315	-	87	-	82	-
Total	63,721	-	42,481	-	13,555	-	6,474	-
Total (Non-missing)	63,399	100	42,166	100	13,468	100	6,392	100.0

Table 1.37 shows the race of enlisted applicants who received a medical waiver in 2005 and in 2000-2004. Blacks made up a smaller percentage of waiver recipients in 2005 relative to the period from 2000 to 2004. There was also a corresponding increase in the percent of applicants with waivers who described their race as "other" or "unknown". These deviations may reflect a difference in the applicant pool, differing likelihood of disqualifying conditions by race, or random variation.

**TABLE 1.37 ACTIVE DUTY ENLISTED APPLICANTS WHO RECEIVED A WAIVER IN 2000-2004 vs 2005: RACE**

Race	2000-2004				2005			
	All waivers		Accessed only		All waivers		Accessed only	
	Count	%	Count	%	Count	%	Count	%
White	46,317	75.4	31,276	75.3	8,844	77.9	4,400	77.9
Black	9,452	15.4	6,405	15.4	1,403	12.4	706	12.5
Other	5,639	9.2	3,837	9.2	1,109	9.8	543	9.6
Missing*	2,313	-	963	-	2,199	-	825	-
Total	63,721	-	42,481	-	13,555	-	6,474	-
Total (Non-missing)	61,408	100	41,518	100	11,356	100	5,649	100.0

\*Note: A much higher number of applicants declined to provide information on race than on other demographic factors.

Table 1.38 shows the education level of applicants granted a medical waiver at the time of application in 2005 and 2000-2004. Applicants who subsequently accessed are shown separately from applicants granted a waiver. The distribution of education level among applicants granted a waiver in 2005 is similar to that in 2000-2004. Note that the great majority of applicants who have not completed high school are high school seniors and will graduate prior to enlistment.

**TABLE 1.38 ACTIVE DUTY ENLISTED APPLICANTS WHO RECEIVED A WAIVER IN 2000-2004 vs 2005: EDUCATION LEVEL**

Education level	2000-2004				2005			
	All waivers		Accessed only		All waivers		Accessed only	
	Count	%	Count	%	Count	%	Count	%
Below HS senior*	2,956	4.7	1,624	3.9	614	4.6	245	3.8
HS senior	19,280	30.4	13,345	31.6	3,817	28.3	1,942	30.3
HS diploma	37,602	59.3	25,354	60.1	8,056	59.7	3,972	61.9
Some college	782	1.2	423	1.0	189	1.4	55	0.9
Bachelor's and higher	2,742	4.3	1,419	3.4	811	6.0	202	3.1
Missing	359	-	316	-	68	-	58	-
Total	63,721	-	42,481	-	13,555	-	6,474	-
Total (Non-missing)	63,362	100	42,165	100	13,487	100	6,416	100.0

\*Encompasses the following three cases: 1) one who is pursuing completion of the GED or other test-based high school equivalency diploma, vocational school, or secondary school, etc; 2) one who is not attending high school and who is neither a high school graduate nor an alternative high school credential holder; 3) one who is attending high school and is not yet a senior.

AFQT score distribution of enlisted applicants who received a waiver in 2000-2004 and in 2005 are shown in table 1.39. The distribution of AFQT is slightly different in 2005 relative to 2000-2004. In 2005, there were higher percentages of waiver applicants who scored in the highest and lowest percentiles on the AFQT relative to previous years. A similar distribution is seen among waiver applicants that subsequently accessed.

**TABLE 1.39 ACTIVE DUTY ENLISTED APPLICANTS WHO RECEIVED A WAIVER IN 2000-2004 vs 2005: AFQT SCORE**

AFQT score	2000-2004				2005			
	All waivers		Accessed only		All waivers		Accessed only	
	Count	%	Count	%	Count	%	Count	%
93-99	4,575	7.2	2,788	6.6	1,078	8.3	422	6.6
65-92	23,623	37.3	15,505	36.7	4,756	36.5	2,284	35.6
50-64	16,551	26.2	11,277	26.7	3,022	23.2	1,576	24.6
30-49	16,699	26.4	11,490	27.2	3,367	25.8	1,728	27.0
11-29*	1,841	2.9	1,161	2.7	803	6.2	400	6.2
Missing	432	-	260	-	529	-	64	-
Total	63,721	-	42,481	-	13,555	-	6,474	-
Total (Non-missing)	63,289	100	42,221	100	13,026	100	6,410	100.0

\*Individuals scoring in the 10 percentile or lower are prohibited from applying.

## Hospitalizations

This section summarizes inpatient hospitalization records of service members admitted to any military treatment facility. Part I summarizes all such records, regardless of whether AMSARA has an accession record corresponding to the hospitalized individual. These results accordingly address the burden of disease across the military services. Part II summarizes inpatient records only among active duty enlistees who began service during 2000-2005 and for whom AMSARA has a corresponding accession record. This section accordingly examines hospitalization among active duty enlistees early in service.

### *Part I: Hospitalizations without an Accession Records*

Hospitalization records of service members admitted to any military treatment facility are summarized regardless of whether AMSARA has an accession record corresponding to the hospitalized individual. Except where indicated, the tables include all hospitalizations, regardless of length of time in service before hospitalization. For those tables that present results according to length of service before hospitalization, the length of service was taken from a field within each hospitalization record.

Table 1.40 shows the overall hospitalization counts and percentages during the first and second years of service as well as counts of hospitalization at all lengths of service. Results are shown separately for active duty enlistees, officers, and warrant officers during 2000-2005. A larger percentage of hospitalizations occur in enlistees during the first two years of service relative to officers or warrant officers. Comparing Army personnel in their first year of service, it is observed that 14.2% of active duty enlistee hospitalizations occurred among soldiers in their first year of service. The corresponding percentages for officers and warrant officers were 2.2% and 0.4% respectively. Similar disparities were seen between enlistees, officers and warrant officers in the other service branches, other than the Air Force which had very few hospitalizations among warrant officers. The small percentage accounted for by warrant officers in the first year or two of service reflects the fact that individuals typically must rise through the enlisted ranks to become warrant officers; thus, few achieve that level during the first two years of service. The greater influence of the first two years among enlistees compared with officers may partly reflect the tendency of enlistees to spend less time in the service compared to officers; i.e., a greater percentage of the enlistee force consists of individuals in the first two years of service. The greater physical demands of basic and advanced individual training compared with the officer basic training may also contribute to this disparity.

**TABLE 1.40 HOSPITALIZATIONS IN 2000-2005 BY SERVICE, YEARS OF SERVICE, AND GRADE: ACTIVE DUTY**

Grade	Years of service	Army		Navy		Marines		Air Force	
		Count	%	Count	%	Count	%	Count	%
Active duty enlistees	0-1	22,013	14.2	7,512	9.8	7,687	18.9	9,106	16.9
	1-2	22,255	14.3	9,710	12.7	6,409	15.7	5,597	10.4
	All	155,568	-	76,275	-	40,731	-	53,782	-
Officers	0-1	348	2.2	121	1.4	38	1.9	235	2.5
	1-2	691	4.4	278	3.3	89	4.6	414	4.4
	All	15,775	-	8,375	-	1,955	-	9,319	-
Warrant Officers	0-1	11	0.4	0	0.0	0	0.0	3	42.9
	1-2	7	0.3	1	0.3	3	0.9	0	0.0
	All	2,505	-	318	-	341	-	7	-

Table 1.41 shows hospitalizations among the Reserves and table 1.42 shows hospitalizations for the National Guard. Aside from the Navy, the percentages of hospitalizations during the first two years of service are clearly higher among enlistees than among officers and are much higher than among warrant officers.

**TABLE 1.41 HOSPITALIZATIONS IN 2000-2005 BY SERVICE, YEARS OF SERVICE, AND GRADE: RESERVES**

Grade	Years of service	Army		Navy		Marines		Air Force	
		Count	%	Count	%	Count	%	Count	%
Active duty enlistees	0-1	1,430	19.3	20	2.0	68	8.8	110	12.6
	1-2	396	5.3	55	5.6	65	8.4	53	6.1
	All	7,405	-	986	-	772	-	872	-
Officers	0-1	35	2.6	8	2.3	2	2.1	2	1.1
	1-2	41	3.1	18	5.2	5	5.3	7	4.0
	All	1,339	-	344	-	95	-	176	-
Warrant Officers	0-1	1	0.7	0	0.0	0	0.0	0	0.0
	1-2	2	1.4	0	0.0	0	0.0	0	0.0
	All	139	-	3	-	7	-	0	-

**TABLE 1.42 HOSPITALIZATIONS IN 2000–2005  
BY SERVICE, YEARS OF SERVICE, AND GRADE: NATIONAL  
GUARD**

Grade	Years of service	Army		Air Force	
		Count	%	Count	%
Active duty enlistees	0–1	1,931	19.5	123	14.4
	1–2	598	6.0	42	4.9
	All	9,917	-	855	-
Officers	0–1	14	2.5	1	1.0
	1–2	7	1.2	3	3.1
	All	571	-	97	-
Warrant Officers	0–1	0	0.0	0	0.0
	1–2	0	0.0	0	0.0
	All	157	-	0	-

Hospitalizations for active duty enlisted service members are shown in table 1.43 by condition and service for the years 2000 to 2004 and separately for the year 2005. For each service, complications of pregnancy was the most common condition for which hospitalizations occurred in 2005, though the percentage of hospitalizations attributable to this condition varied from 12.9% to 32.9% by service. Among enlisted Army, complications of pregnancy (16.6%) were followed by injury (9.0%) and neurotic and personality disorders (8.4%). Among enlisted Navy, complications of pregnancy (32.9%) was followed by symptoms (5.7%) and neurotic and personality disorders (5.5%). Complications of pregnancy (12.9%), Injuries (11.2%) and fractures (9.5%) were the leading causes of hospitalization among Marines. Complications of pregnancy (30.6%), Symptoms (6.9%) and neurotic and personality disorders (6.0%) were the leading causes of hospitalization among enlisted Air Force.

**TABLE 1.43 HOSPITALIZATION PERCENTAGES OF DIAGNOSIS CATEGORIES FOR ACTIVE DUTY ENLISTED IN 2000-2004 VS 2005 : BY SERVICE :**

Category	Army		Navy		Marines		Air Force	
	2000-2004	2005	2000-2004	2005	2000-2004	2005	2000-2004	2005
Complications of Pregnancy	18.7	16.6	29.7	32.9	13.7	12.9	28.6	30.6
Neurotic & Personality Disorders	8.5	8.4	8.9	5.5	8.8	8.6	8.8	6.0
Injuries	7.5	9.0	3.6	3.3	8.7	11.2	2.9	3.1
Fracture	6.0	6.8	4.1	4.2	8.2	9.5	2.8	3.0
Nonspecific Symptoms	5.2	5.5	5.2	5.7	4.4	3.3	5.8	6.9
Arthropathies and Related Symptoms	4.4	4.4	3.4	2.7	5.2	3.2	2.6	2.4
Other Psychoses	3.3	3.1	3.4	3.2	2.8	3.6	2.8	2.6
Other Diseases of Respiratory System	2.5	2.2	2.0	1.7	2.7	2.2	2.5	2.3
Infections of Skin and Subcutaneous Tissue	2.4	3.1	2.3	2.7	4.9	5.9	1.4	2.2
Oral Cavity	2.4	1.7	1.1	1.0	1.4	0.9	2.5	2.6
Appendicitis	2.0	2.0	2.6	3.2	3.2	3.0	2.7	3.3
Pneumonia and Influenza	2.0	1.9	0.9	0.8	3.6	4.2	1.4	0.9
Alcohol and Drug Dependence	1.8	1.4	1.9	1.9	1.8	1.9	1.1	0.9
Hernia of Abdominal Cavity	1.4	1.3	0.6	0.5	1.3	0.8	0.5	0.5
Noninfectious Enteritis and Colitis	1.1	0.7	0.8	0.9	0.9	0.6	1.0	1.0
Acute Respiratory Infections	0.9	0.8	0.4	0.3	0.8	0.5	0.9	0.4
Poisoning and Toxic Effects	0.9	1.1	0.8	0.9	1.6	1.7	0.5	0.6
Other Diseases Due to Viruses	0.8	0.6	0.4	0.3	0.6	0.4	2.8	0.2
Chronic Obstructive Pulmonary Disease	0.5	0.4	0.3	0.3	0.3	0.3	0.4	0.3
Other Bacterial Diseases	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1
Viral Diseases Accompanied by Exanthem	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.0
Others	27.3	28.7	27.5	27.8	24.7	25.1	27.7	30.0
Total hospitalizations	145,736	28,208	72,243	12,759	36,146	6,895	54,142	8,979

Table 1.44 shows the hospitalization percentage by service component of service for 2000-2005. It should be noted that the Navy and Marines do not have a National Guard component. In 2005, complications of pregnancy (22.0%) were the most common reason for hospitalizations among active duty followed by neurotic/personality disorders (7.4%) and injuries (7.1%). Among National Guard members, injuries were the most common reason for hospitalization (12.7%) followed by fracture (11.0%) and general symptoms (7.7%). The most common condition for which reserves were hospitalized was injuries (9.9%) followed by general symptoms (8.3%) and neurotic and personality disorder (6.3%).

**TABLE 1.44 HOSPITALIZATION PERCENTAGES OF MEDICAL CATEGORIES FOR ALL SERVICES IN 2000-2004 VS 2005: BY COMPONENT**

Category	Active Duty		National Guard		Reserves	
	2000-2004	2005	2000-2004	2005	2000-2004	2005
Complications of Pregnancy	22.4	22.0	2.4	2.5	5.9	6.2
Neurotic and Personality Disorders	8.7	7.4	7.3	6.0	6.8	6.3
Injuries	5.9	7.1	9.7	12.7	8.2	9.9
Fracture	5.3	6.0	6.8	11.0	6.2	5.3
General Symptoms	5.2	5.5	9.7	7.7	9.9	8.3
Arthropathies and Related Disorders	3.9	3.6	2.7	2.6	3.0	3.9
Other Psychoses	3.2	3.1	3.1	3.0	3.1	3.3
Infections of Skin and Subcutaneous tissue	2.5	3.2	4.1	3.8	3.1	3.5
Appendicitis	2.4	2.6	1.9	1.6	2.2	1.9
Other Diseases of the Urinary system	2.4	2.1	3.4	3.6	3.2	2.6
Oral Cavity	2.0	1.6	1.4	0.9	1.3	1.1
Pneumonia and Influenza	1.8	1.8	4.1	2.1	2.4	1.3
Alcohol and Drug Dependency	1.7	1.5	1.2	0.9	1.0	1.2
Hernia of Abdominal Cavity	1.0	1.0	2.5	2.1	2.0	1.7
Other Diseases Due to Viruses	1.0	0.4	1.5	0.9	0.9	0.6
Noninfectious Enteritis And Colitis	1.0	0.8	1.6	0.9	1.4	1.4
Poisoning and Toxic Effects	0.9	1.0	0.6	0.6	0.6	0.3
Acute Respiratory Infection	0.8	0.6	1.3	0.8	1.1	0.9
Chronic Obstructive Pulmonary Disease	0.4	0.3	0.7	0.5	0.6	0.6
Other Bacterial Diseases	0.2	0.2	0.4	0.2	0.3	0.2
Viral Diseases Accompanied By Exanthem	0.2	0.1	0.2	0.0	0.2	0.1
Others	27.1	28.2	33.3	35.4	36.6	39.4
Total hospitalizations	308,267	56,841	8,742	2,864	9,934	2,221

**Part II: Hospitalizations with an Accession Record,  
Active Duty Enlistees Only**

Hospitalization records of active duty enlistees who began service during 2000-2005 and for whom AMSARA has a corresponding accession record are summarized. Relative risks are used to compare the likelihood of hospitalization across demographic groups. The baseline group chosen for each comparison depends on the factor being considered. For factors with some inherent order (e.g., age group, which ranges from younger to older) it is the first or last group in that order, as appropriate. Otherwise, the baseline group is generally the largest group.

Table 1.45 shows hospitalizations and persons hospitalized among recruits accessed during each year from 2000 to 2005. Hospitalizations are separated into two groups: one that includes hospitalizations that occurred in the same year as accession and one that includes hospitalizations that occurred within one year of service. The former provides a fair basis of comparison for those gained in 2005, because hospitalization data were only available through 2005 for this report, allowing less than a full year of follow-up for this group. Because multiple hospitalizations can occur per person, results are shown both in terms of hospitalizations ("Count") and people hospitalized ("Person"). The percent of people hospitalized has steadily decreased between 2000 and 2005 whether considering hospitalizations within the same gain year or hospitalizations within one year of service.

**TABLE 1.45 ACTIVE DUTY HOSPITALIZATIONS IN 2000-2005: YEAR**

Year	Total accessed	Within same gain year			Within 1 year of service		
		Count	Person	% of persons	Count	Person	% of persons
2000	180,672	6,149	5,575	3.09	9,693	8,560	4.74
2001	170,482	4,083	3,690	2.16	7,418	6,460	3.79
2002	176,772	4,817	4,324	2.45	8,009	6,935	3.92
2003	168,648	4,542	4,099	2.43	7,309	6,371	3.78
2004	140,376	3,254	2,964	2.11	5,312	4,708	3.35
2005	128,425	2,746	2,475	1.93	-	-	-

Table 1.46 shows the risk of hospital admission within one year of accession for enlisted recruits by service. Army enlistees had the highest risk of hospitalization in the year following accession. This risk was significantly greater than Navy, Marine, and Air Force enlistees. Navy enlistees had the lowest risk of hospitalization in the year following accession relative to Army enlistees.

**1.46 HOSPITAL ADMISSIONS WITHIN 1 YEAR OF ACCESSION FOR ACTIVE DUTY ENLISTED PERSONNEL ACCESSED 2000-2005: SERVICE**

Service	Enlisted accessions	Hospital admissions	Persons hospitalized			
			Count	%	Relative risk	95% CI
Army	335,427	18,392	15,971	4.76	1.00	
Navy	250,318	7,046	6,271	2.51	0.53	0.51,0.54
Marine	191,728	7,458	6,522	3.40	0.71	0.69,0.73
Air Force	187,902	7,617	6,766	3.60	0.76	0.74,0.78

Demographic characteristics of enlistees hospitalized within one year of accession are shown in tables 1.47-1.50. As seen in table 1.47, females had a significantly higher risk of hospitalization within one year of accession relative to males. Table 1.48 shows the risk of hospitalization also increased with increasing age, with highest risk of hospitalization observed the oldest age group (over 30) and lowest risk observed in the youngest age group (17-20). In addition, a significantly higher risk of hospitalization was observed in each of the older age groups relative to the youngest group.

**TABLE 1.47 HOSPITAL ADMISSIONS WITHIN 1 YEAR OF ACCESSION FOR ACTIVE DUTY ENLISTED PERSONNEL ACCESSED IN 2000-2005: GENDER**

Gender	Enlisted accessions	Hospital admissions	Persons hospitalized			
			Count	%	Relative risk	95% CI
Male	798,557	31,041	27,233	3.41	1.00	
Female	166,808	9,471	8,296	4.97	1.46	1.42,1.49

**TABLE 1.48 HOSPITAL ADMISSIONS WITHIN 1 YEAR OF ACCESSION FOR ACTIVE DUTY ENLISTED PERSONNEL ACCESSED IN 2000-2005: AGE**

Age	Enlisted accessions	Hospital admissions	Persons hospitalized			
			Count	%	Relative risk	95% CI
17-20 yr	700,776	28,153	24,795	3.54	1.00	
21-25 yr	214,081	9,538	8,353	3.90	1.10	1.08,1.13
26-30 yr	40,024	2,143	1,819	4.54	1.28	1.23,1.35
>30 yr	10,454	679	563	5.39	1.52	1.40,1.65

Whites had a marginally higher likelihood of hospitalization within one year of accession when compared to blacks, as shown in table 1.49. However, the lower likelihood of hospitalization among blacks failed to achieve statistical significance. Relative to whites, those who were categorized as "Other" race were significantly less likely to be hospitalized within one year of accession. Individuals with some college education at the time of enlistment had an elevated likelihood of hospitalization during the first year of service relative to those who had not completed high school (table 1.50).

**TABLE 1.49 HOSPITAL ADMISSIONS WITHIN 1 YEAR OF ACCESSION FOR ACTIVE DUTY ENLISTED PERSONNEL ACCESSED IN 2000-2005: RACE**

Race	Enlisted accessions	Hospital admissions	Persons hospitalized			
			Count	%	Relative risk	95% CI
White	680,068	29,224	25,596	3.76	1.00	
Black	158,762	6,609	5,805	3.66	0.97	0.94,1.00
Other	92,987	3,418	3,024	3.25	0.86	0.83,0.90
Missing*	33,558	1,262	1,105	3.29	0.87	0.82,0.93

\*Note: A much higher number of applicants declined to provide information on race than on other demographic factors.

**TABLE 1.50 HOSPITAL ADMISSIONS WITHIN 1 YEAR OF ACCESSION FOR ACTIVE DUTY ENLISTED PERSONNEL ACCESSIONED IN 2000-2005: EDUCATION LEVEL**

Education level	Enlisted accessions	Hospital admissions	Persons hospitalized			
			Count	%	Relative risk	95% CI
Below HS grad*	13,837	536	477	3.45	1	
HS diploma	861,860	35,629	31,272	3.63	1.05	0.96, 1.15
Some College	28,545	1,584	1,354	4.74	1.38	1.24, 1.52
Bachelor's or higher	18,989	808	722	3.80	1.10	0.98, 1.23
Unknown	42,144	1,854	1,628			

\*Encompasses the following three cases: 1) one who is pursuing completion of the GED or other test-based high school equivalency diploma, vocational school, or secondary school, etc; 2) one who is not attending high school and who is neither a high school graduate nor an alternative high school credential holder; 3) one who is attending high school and is not yet a senior.

Table 1.51 shows hospital admissions within one year of accession for active duty enlisted personal by AFQT percentile score. As shown in the table, the risk of hospitalization is lowest among individuals scoring in the highest percentiles (93-99). Relative to the highest percentile group, the risk of hospitalization of each of the other percentile score group is significantly higher than that of the highest percentile score group.

**TABLE 1.51 HOSPITAL ADMISSIONS WITHIN 1 YEAR OF ACCESSION FOR ACTIVE DUTY ENLISTED PERSONNEL ACCESSIONED IN 2000-2005: AFQT SCORE**

AFQT score	Enlisted accessions	Hospital admissions	Persons hospitalized			
			Count	%	Relative risk	95% CI
93-99	49,099	1,771	1,556	3.17	1.00	
65-92	340,534	13,878	12,211	3.59	1.13	1.07, 1.19
50-64	258,874	11,284	9,915	3.83	1.21	1.15, 1.27
30-49	281,024	12,210	10,660	3.79	1.20	1.14, 1.26
11-29*	31,861	1,325	1,149	3.61	1.14	1.06, 1.23
Missing	3,983	45	39	-	-	-

\*Individuals scoring in the 10 percentile or lower are prohibited from applying.

Table 1.52 shows the most common categories of medical conditions resulting in hospitalization and the numbers of admissions and individuals admitted for these conditions. The category of neurotic and personality disorders is clearly the most frequent medical condition leading to hospitalization, particularly for hospitalization during the first year of service. Complications of pregnancy is the next most common condition resulting in hospitalization within 2 years of accession, reflecting the physically demanding nature of early enlisted service, specifically IET

When follow-up is through the first two years of service, the relative sizes of the medical categories of conditions resulting in hospitalization change somewhat. For example, the number of visits for complications of pregnancy increases dramatically when the second year of service is considered, which is not surprising since recruits are not accepted into service when pregnant. Also, the numbers of injury hospitalizations and individuals hospitalized within two

years of accession are more than double those observed within one year of accession. Conversely, for oral cavity and fracture, numbers of admissions and individuals hospitalized within two years of accession are similar to the numbers of admissions and individuals hospitalized within one year of accession. Presumably, enlistees are at a similar level of risk for serious injuries over the first two years of service, but the risk of pneumonia and influenza as well as and other diseases due to virus decreases as service time increases, perhaps reflecting a reduction in group-living situations after basic training.

The numbers of hospitalization for neurotic and personality disorders increase with the two year follow-up but are less than double those after one year of accession. AMSARA has found that those enlistees experiencing a serious episode related to mental illness early in training are discharged soon after (2000 AMSARA Annual Report, p. 23-33). Further, given the observed hospitalizations, most serious mental illnesses appear to manifest within one year of accession.

**TABLE 1.52 HOSPITAL ADMISSIONS AND PERSONS HOSPITALIZED WITHIN 1 AND 2 YEARS OF SERVICE FOR ACTIVE DUTY ENLISTED PERSONNEL ACCESSED IN 2000-2005: BY MEDICAL CATEGORY**

Medical category	Within 1 year of accession		Within 2 years of accession	
	Hospital admissions	Persons hospitalized	Hospital admissions	Persons hospitalized
Neurotic and Personality Disorders	9,373	8,106	13,274	10,980
Pneumonia and Influenza	3,383	3,198	3,566	3,348
Infections of Skin	2,474	2,310	3,309	3,031
Other Psychoses	2,181	1,741	3,462	2,484
Fracture	2,022	1,804	4,178	3,392
Nonspecific Symptoms	1,885	1,608	2,917	2,385
Other Diseases Due to Virus	1,833	1,741	1,982	1,869
Injuries	1,792	1,535	4,554	3,523
Acute Respiratory Infections	1,172	1,106	1,356	1,268
Other Diseases of the Respiratory System	1,052	947	1,766	1,509
Complications of Pregnancy	924	795	11,353	9,699
Appendicitis	861	831	1,605	1,509
Alcohol and Drug Dependency	736	607	1,543	1,245
Poisoning and Toxic Effects	690	607	1,204	1,011
Hernia of Abdominal Cavity	530	504	797	743
Oral Cavity	505	467	1,029	924
Arthropathies and Related Disorders	397	336	1,269	1,066
Noninfectious Enteritis	371	319	637	520
Chronic Obstructive Pulmonary Disease And Allied Conditions	323	284	432	375
Other Bacterial Diseases	270	247	325	294
Viral Diseases Accompanied by Exanthem	151	142	179	162
Other	7,583	6,292	12,943	10,025
Total	40,508	35,527	73,680	61,362

## EPTS Discharges

Discharges for medical conditions existing prior to service (EPTS) are of vital interest to AMSARA. A discharge can be classified as EPTS if the condition was verified to have existed before the recruit began service and if the complications leading to discharge arose no more than 180 days after the recruit began duty. EPTS data reporting has varied by site and over time -- see Data Sources section for details.

Part I summarizes the EPTS records provided to AMSARA, regardless of whether a corresponding accession record is available. EPTS records for active duty, reserves, and National Guard members are included. Part II only summarizes records for which a corresponding accession record is available; only active duty discharges are included.

### ***Part I: EPTS Discharges Irrespective of Accession Record***

Included among the EPTS records provided to AMSARA are records for recruits in Initial Entry Training (IET) for the Reserves or National Guard; AMSARA does not currently hold complete accessions data on these components. In addition, some active duty enlistee EPTS records do not have a matching accession record. Accordingly, the tables in Part I show the numbers of EPTS discharge records provided by the IET sites, regardless of whether a corresponding accession record is available to AMSARA.

The number of EPTS discharge records by service branch, component, and year are shown for the period between 2000 and 2005 in table 1.53. Numbers for each service and component are unstable. For example, the number of records received for Navy active duty in 2004 was 997, almost 50% less than the 1,864 records received in 2000. This downturn in reported EPTS discharges was due to a turnover of personnel responsible for reporting such discharges.

The number of records reported for Navy in 2005 increased relative to 2004, and is considerably lower than the number of reported discharges between 2000 and 2003. Very few records were provided for Navy Reserves and Air National Guard, and it is not clear whether these numbers are reflective of reality. Similarly, the numbers reported by the Marines fluctuate for both active duty and reserves. Air Force active duty numbers were low from 2000-2001, and are likely due to underreporting. However, numbers for 2002-2005 returned to a more plausible level. Finally, numbers for all components of the Army appeared to be relatively stable in the period from 2000 to 2004, but declined in 2005. However, reporting by site fluctuated considerably between 2000 and 2005 (see "Data Sources" for details), so the relative stability observed in 2000-2004 may be complicated by incomplete reporting.

**TABLE 1.53 EPTS DISCHARGES IN 2000-2005 BY SERVICE, COMPONENT AND YEAR \***

Service		2000	2001	2002	2003	2004	2005	Total
Army	Active duty	3,372	3,082	3,279	3,469	3,163	2,363	18,728
	Guard	668	556	502	561	682	630	3,599
	Reserves	465	403	223	351	475	328	2,245
Navy	Active duty	1,864	1,821	1,813	1,312	997	1,196	9,003
	Reserves	1	1	2	5	1	15	25
Marines	Active duty	1,054	885	1,121	1,364	1,532	1,327	7,283
	Reserves	108	83	77	190	218	135	811
Air Force†	Active duty	200	257	753	703	680	564	3,157
	Guard	12	5	3	4	2	2	28
	Reserves	8	8	26	55	55	44	196
Total		7,752	7,752	7,101	7,799	8,014	7,805	45,075

\* Data reporting incomplete (see Section 1).

† Air Force didn't provide EPTS discharge records in April 2000–September 2001.

Table 1.54 shows EPTS discharges between 2000 and 2005 for each branch of service by medical categories defined by USMEPCOM. The results are sorted according to the numbers of discharges from the Army, the largest service and the one with the most reported EPTS discharges. Psychiatric discharges were the most common cause of EPTS discharges in the Army, Navy and Marines, accounting for 18.5%, 28.9% and 36.0% of EPTS discharges, respectively. Asthma and all orthopedic conditions were also large contributors of EPTS discharges across all branches of service. As a group, orthopedic conditions, including knee, back, feet, and other, account for 39% of discharges from the Army. Orthopedic conditions were also the second leading cause of EPTS discharges in the Navy and the Marines. The leading causes of EPTS in the Air Force were orthopedic conditions (34%) and asthma (32.6%). The difference in category frequencies may be due in part to differences in how each service categorizes and reports EPTS discharges. Accordingly, differences across services may reflect procedural differences more than true EPTS rates, and any comparisons across services are tenuous.

**TABLE 1.54 EPTS DISCHARGES IN 2000-2005 BY CATEGORY**

Category	Army		Navy		Marines		Air Force*	
	Count	%	Count	%	Count	%	Count	%
Psychiatric—other	3,456	18.5	2,599	28.9	2,619	36.0	66	2.1
Asthma	3,433	18.3	907	10.1	979	13.4	1,030	32.6
Orthopedics—other	2,494	13.3	841	9.3	650	8.9	253	8.0
Orthopedics—knee	1,914	10.2	703	7.8	435	6.0	346	11.0
Orthopedics—back	1,603	8.6	559	6.2	327	4.5	251	8.0
Orthopedics—feet	1,287	6.9	286	3.2	165	2.3	220	7.0
Genitourinary system	731	3.9	420	4.7	242	3.3	94	3.0
Other	698	3.7	414	4.6	435	6.0	165	5.2
Neurology—other	631	3.4	339	3.8	384	5.3	171	5.4
Abdomen and viscera	419	2.2	148	1.6	167	2.3	72	2.3
Cardiovascular—other	346	1.8	149	1.7	121	1.7	80	2.5
Eyes—other	302	1.6	475	5.3	147	2.0	97	3.1
Skin/lymphatics	291	1.6	258	2.9	110	1.5	77	2.4
Seizure disorder	236	1.3	101	1.1	76	1.0	40	1.3
Hypertension	228	1.2	84	0.9	69	0.9	14	0.4
Chest/lung—other	200	1.1	93	1.0	92	1.3	37	1.2
Ears—hearing	78	0.4	130	1.4	136	1.9	11	0.3
Vision/refraction	49	0.3	50	0.6	25	0.3	23	0.7
Schizophrenia	40	0.2	5	0.1	8	0.1	0	0.0
Ears—other	28	0.1	92	1.0	39	0.5	4	0.1
Missing	264	1.4	350	3.9	57	0.8	106	3.4
Total	18,728	100	9,003	100	7,283	100	3,157	100

\*Air Force did not provide records for discharges in April 2000–September 2001, so the 2000–2005 aggregate numbers for Air Force are underestimates.

The medical causes of EPTS discharges for each service are more thoroughly examined by medical conditions that are disqualifying for enlisted service, as listed in the DoD Instruction 6130.4. Tables 1.55-1.58 summarize the primary medical conditions leading to EPTS discharge by service for 2000-2005, sorted by the number of discharges in 2005.

Table 1.55 shows the top 20 conditions leading to EPTS discharge in the Army during 2000-2005. Neurotic disorders, asthma, and joint pain were the most common reasons for EPTS discharges among Army recruits in 2005. Numbers of reported EPTS discharges across years are unstable for several conditions, most likely due to reporting fluctuations.

**TABLE 1.55 TOP 20 PRIMARY EPTS DISCHARGE CONDITIONS FOR ACTIVE DUTY REGULAR RECRUITS IN 2000–2005: ARMY**

Primary Condition	2000	2001	2002	2003	2004	2005
Neurotic disorders (nonpsychotic)	391	464	327	399	369	429
Asthma	523	562	664	675	646	399
Pain in joint	264	230	275	331	308	202
Unspecified disorders of the back	175	157	209	259	191	145
Late effects of lower extremity fracture	107	111	157	179	164	130
Symptoms involving head and neck	50	49	80	58	65	62
Epilepsy, including seizures	34	36	61	52	43	52
Pregnancy	37	34	34	15	42	37
Disturbance of emotions specific to childhood and adolescence	69	66	36	18	28	36
Loose body in joint	66	56	87	89	56	36
Hypertension	20	18	24	69	65	35
ADHD	27	28	31	46	36	33
Valgus deformities of feet	252	101	74	49	61	34
Schizophrenic disorders	20	21	23	33	12	23
Syncope and collapse	10	12	15	13	14	22
Chondromalacia of patella	105	54	64	60	46	20
Unspecified internal derangement of knee	53	33	47	52	42	20
Acquired deformities of toe	15	24	20	25	22	20
Keratoconus	16	12	11	19	28	18
Scrotal varices	11	9	17	30	25	18
Other	1,127	1,005	1,023	998	900	592
Total	3,372	3,082	3,279	3,469	3,163	2,363

EPTS discharges among Navy recruits for the years between 2000 and 2005 are shown in table 1.56. In 2005, asthma was the most common condition leading to EPTS discharge, followed by lower extremity pain and Neurotic disorders, among Navy recruits. The numbers for many of the listed conditions during this five-year period are unstable, most likely due to reporting fluctuations. For example, the number of EPTS discharges for diseases of the lower extremities more than doubled since 2004 while the number of discharges for Neurotic disorder in 2005 is less than 40% of the number for the same condition in 2000. Such variation might, in part, reflect a difference in the applicant pool or random variations, but inconsistent reporting of EPTS discharges to MEPCOM makes such a determination difficult.

**TABLE 1.56 TOP 20 PRIMARY EPTS DISCHARGE CONDITIONS FOR ACTIVE DUTY REGULAR RECRUITS IN 2000–2005: NAVY**

Primary Condition	2000	2001	2002	2003	2004	2005
Asthma	205	118	147	167	141	152
Disease or chronic pain of lower extremities	104	131	43	78	53	130
Neurotic disorders (nonpsychotic)	168	111	212	142	38	65
Personality disorders	131	137	268	90	30	42
Unspecified disorders of the back	56	47	28	44	34	42
Deviation or curvature of spine	24	26	24	31	52	34
Late effects of fracture to the upper extremities	25	46	20	15	25	30
Headaches, recurrent, all types	48	27	28	24	17	29
Behavior disorders	87	100	152	63	25	25
Hearing deficiency	25	23	25	21	22	25
Keratoconus	21	24	9	27	35	23
Pregnancy	49	57	38	17	18	23
Academic skills defects	26	21	67	58	16	20
Late effects of fracture to the lower extremities	39	25	7	5	13	20
Epilepsy	19	25	18	21	19	19
Shoulder dislocation	10	10	18	9	13	16
Syncope	22	20	22	13	9	15
Nonspecific abnormal findings	13	15	10	14	10	14
Inguinal hernia	2	9	7	1	6	13
Chest pain	3	4	11	11	13	13
Other	787	845	659	461	408	446
Total	1,864	1,821	1,813	1,312	997	1,196

Table 1.57 shows the top 20 conditions leading to EPTS discharge among Marine enlistees during 2000-2005. In 2005, of the four most common conditions, three were psychological (Neurotic disorders, personality disorders, and suicide attempt/ideation). The number of EPTS records changed markedly in certain categories. This may be partly due to fluctuations in overall data reporting over the period. Further scrutiny would be required to determine the reasons for the reasons for these changes in reported discharge numbers.

**TABLE 1.57 TOP 20 PRIMARY EPTS DISCHARGE CONDITIONS FOR ACTIVE DUTY REGULAR RECRUITS IN 2000–2005: MARINES**

<b>Primary Condition</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
Neurotic disorders (nonpsychotic)	102	131	196	246	272	295
Asthma	125	153	170	170	215	153
Personality disorders	16	20	32	72	120	91
Suicide (attempted or suicidal behavior)	66	88	69	48	85	68
Pain in joint	48	25	23	50	48	55
ADHD	14	15	32	42	51	29
Unspecified disorders of back	35	19	28	48	55	28
Symptoms involving the head and neck	34	20	55	43	43	28
Allergic reactions	7	12	21	19	17	27
Later effect of fracture of upper extremities	27	19	14	33	30	25
Loose body in joint	22	8	7	24	15	24
Condromalacia of patella	38	6	3	6	12	19
Delays in development	5	2	7	13	18	17
Dentofacial anomalies	2	3	3	3	18	17
Nondependant abuse of drugs	3	1	3	12	23	16
Disturbance of emotion specific to childhood and adolescence	12	10	7	39	44	16
Enuresis	5	4	11	16	12	15
Shoulder dislocation	16	18	18	19	18	13
Hearing loss	33	27	17	25	21	12
Unspecified internal derangement of knee	8	5	10	13	13	10
Other	436	299	395	423	402	369
<b>Total</b>	<b>1,054</b>	<b>885</b>	<b>1,121</b>	<b>1,364</b>	<b>1,532</b>	<b>1,327</b>

Table 1.58 shows the top 20 primary conditions leading to EPTS discharge among Air Force recruits during the period from 2000 to 2005. Numbers for EPTS discharges between 2000 and 2001 are unreliable because the Air Force did not provide records for EPTS discharges during this time period. In 2005, asthma was the most common condition leading to EPTS discharge. The second leading cause was joint pain, followed by unspecified disorders of back. Note that no psychological conditions appear among the top 20 conditions. This absence likely reflects a difference in active screening for these conditions in basic training at Lackland Air Force Base, and in Air Force categorization of such conditions as administrative rather than EPTS discharges.

**TABLE 1.58 TOP 20 PRIMARY EPTS DISCHARGE CONDITIONS FOR ACTIVE DUTY REGULAR RECRUITS IN 2000–2005: AIR FORCE**

Primary Condition	2000	2001	2002	2003	2004	2005
Asthma	34	79	272	255	263	168
Pain in joint	8	23	64	36	41	68
Unspecified disorders of back	15	17	49	34	37	45
Symptoms involving head and neck	8	7	28	28	31	27
Late effect of fracture of upper extremities	5	1	15	18	17	23
Late effect of fracture of lower extremities	3	2	9	10	14	12
Loose body in joint	4	3	2	5	3	8
Plantar fasciitis	3	6	4	4	2	8
Acquired deformities of toe	2		2	2	2	8
Nonspecific abnormal findings	1	1	4	8	4	8
Syncope and collapse	4	1	7	4	5	7
Epilepsy, including seizures	4	1	6	10	12	6
Anaphylactic shock	1	1	3	4	3	6
Curvature of spine	2	4	7	4	2	5
Congenital anomalies of heart	2	1	6	12	7	5
Repair of joint structures	0	0	1	8	6	5
Anemia	0	0	3	5	4	4
Neurotic disorders (nonpsychotic)	4	6	4	5	4	4
Myopia	0	1	0	0	1	4
Hypertension	2	1	3	2	3	4
Other	98	102	264	249	219	139
Total	200	257	753	703	680	564

\* Air Force did not provide records for EPTS discharges that occurred in April 2000–September 2001.

**Part II: EPTS Discharges with an Accession Record**

EPTS discharges among recruits accessed during 2000-2005 are summarized in tables 1.59-1.65. Note that all references to years refer to the year of accession rather than the year of discharge. Discharge numbers reflect only discharges occurring among individuals with an accession record in the specific year. As mentioned, an EPTS discharge can only be obtained within the first 180 days of service.

Relative risks are used to compare the likelihood of EPTS discharge between demographic groups. The baseline group chosen for each comparison depends on the factor being considered. For factors with some inherent order (e.g., age group, which ranges from younger to older) it is the first or last group in that order, as appropriate. Otherwise, the baseline group is generally the largest group. All comparisons, particularly those by service branch, should be taken in light of EPTS data reporting fluctuations by service and over time (see section 4 for details).

Table 1.59 shows EPTS discharges reported among individuals accessed into enlisted service during each year from 2000 through 2005. The numbers of EPTS discharges reported among recruits who accessed in 2005 is the lowest; this is due to incomplete follow-up data for those gained in the second half of CY 2005. Hence, no obvious longer term trend in the number of EPTS discharges reported is apparent and, with the exception of 2001, which is affected by unreported Air Force data, the percentage of EPTS discharges has remained fairly constant over this period of time.

**TABLE 1.59 EPTS DISCHARGES BY ACCESSION YEAR**

Year	Total accessed	Count	%
2000	180,672	5,683	3.15
2001	170,482	4,945	2.90
2002	176,772	6,106	3.45
2003	168,648	5,841	3.46
2004	140,376	4,966	3.54
2005	128,425	3,412	2.66

Enlisted accessions between 2000 and 2005 ending in EPTS discharges are shown in table 1.60 for each branch of service. Relative to Army enlistees, the likelihood of EPTS discharge in the three remaining services are significantly lower, with the lowest likelihood of EPTS discharge occurring among Air Force accessions. However, EPTS reporting is not uniform across all services or even across different IET sites within the Army and Marines (see “EPTS Discharges” in Section 4). Moreover, the services differ with respect to which discharges are classified as EPTS. Therefore, differences observed between services may reflect procedural or reporting difference not actual differences in the likelihood of discharges.

**TABLE 1.60 ENLISTED ACCESSIONS IN 2000–2005 ENDING IN EPTS DISCHARGE: SERVICE**

Service	Total accessed	Discharged	% Discharged	Relative risk	95% CI
Army	335,427	13,430	4.00	1.00	
Navy	250,318	8,257	3.30	0.82	0.80,0.85
Marine	191,728	6,590	3.44	0.86	0.83,0.88
Air Force*	187,902	2,676	1.42	0.36	0.34,0.37

\*Air Force did not provide records for discharges in April 2000–September 2001, so the discharge rate and relative risk for Air Force are underestimates.

Table 1.61 shows the numbers of accessions a subsequent EPTS discharges reported by gender. The risk of EPTS discharge is significantly higher among females relative to males.

**TABLE 1.61 ENLISTED ACCESSIONS ENDING IN EPTS DISCHARGE IN 2000–2005: GENDER**

Gender	Total accessed	Discharged	% Discharged	Relative risk	95% CI
Male	798,557	23,732	2.97	1.00	
Female	166,808	7,220	4.33	1.46	1.42,1.49

The numbers of EPTS discharges and accessions are shown by age for the period of 2000–2005 in table 1.62. The risk of discharges increases progressively with each increasing age group. Further, the likelihood of EPTS discharge for each age group is significantly higher than relative to the 17–20 year old age group.

**TABLE 1.62 ENLISTED ACCESSIONS ENDING IN EPTS DISCHARGE IN 2000–2005: AGE**

Age	Total accessed	Discharged	% Discharged	Relative risk	95% CI
17–20 yr	700,776	21,596	3.08	1.00	
21–25 yr	214,081	7,243	3.38	1.10	1.07,1.13
26–30 yr	40,024	1,642	4.10	1.33	1.27,1.40
>30 yr	10,454	472	4.52	1.47	1.34,1.60

Table 1.63 shows the number of accessions and EPTS discharges for the period between 2000 and 2005 by race. The likelihood of EPTS discharge was significantly higher for white applicants when compared to either black applicants or those of unknown race.

**TABLE 1.63 ENLISTED ACCESSIONS ENDING IN EPTS DISCHARGE IN 2000–2005: RACE**

Race	Total accessed	Discharged	% Discharged	Relative risk	95% CI
White	680,068	23,310	3.43	1.00	
Black	158,762	4,343	2.74	0.80	0.77,0.82
Other	92,987	2,137	2.30	0.67	0.64,0.70
Missing*	33,558	1,163			

\*Note: A much higher number of applicants declined to provide information on race than on other demographic factors.

The numbers of accessions and subsequent EPTS discharged between 2000 and 2005 are shown by education in table 1.64. Relative to those with less than a high school education, all other education groups were significantly less likely to have an EPTS discharge.

**TABLE 1.64 ENLISTED ACCESSIONS ENDING IN EPTS DISCHARGE IN 2000–2005: EDUCATION LEVEL**

Education level	Total accessed	Discharged	% Discharged	Relative risk	95% CI
Below HS grad*	13,837	546	3.95	1.00	
HS diploma	861,860	27,647	3.21	0.81	0.75, 0.88
Some college	28,545	983	3.44	0.87	0.79, 0.97
Bachelor's and higher	18,989	423	2.23	0.56	0.50,0.64
Unknown	42,144	1,354			

\*Encompasses the following three cases: 1) one who is pursuing completion of the GED or other test-based high school equivalency diploma, vocational school, or secondary school, etc; 2) one who is not attending high school and who is neither a high school graduate nor an alternative high school credential holder; 3) one who is attending high school and is not yet a senior.

Table 1.65 shows the enlisted accessions ending in EPTS discharge for the period between 2000 and 2005 by AFQT score. Those scoring in the highest percentiles (93-99) on the AFQT had the lowest risk of EPTS discharge. Each lower percentile group had a significantly higher risk of EPTS discharge when compared to the highest percentile group. The risk of EPTS discharge subsequently increases with each decreasing percentile category, with the highest risk of EPTS discharge occurring among those who scored in the 11<sup>th</sup>-29<sup>th</sup> percentile on the AFQT.

**TABLE 1.65 ENLISTED ACCESSIONS ENDING IN EPTS DISCHARGE IN 2000–2005: AFQT SCORE**

AFQT score	Total accessed	Discharged	% Discharged	Relative risk	95% CI
93–99	49,099	1,087	2.21	1.00	
65–92	340,534	9,640	2.83	1.28	1.20,1.36
50–64	258,874	8,767	3.39	1.53	1.44,1.63
30–49	281,024	10,220	3.64	1.64	1.54,1.75
11–29*	31,861	1,228	3.85	1.74	1.61,1.89

\*Individuals scoring in the 10 percentile or lower are prohibited from applying.

## Disability Discharges Among Army and Air Force Active Duty Enlistees

Data on disability discharge considerations are compiled separately for each service by its disability agency. The Army and Air Force disability agencies have provided data on all disability discharge considerations during 2000-2005. The Navy/Marines agency has provided data only on a diagnosis-specific request basis rather than for all actions. Consequently, only Army and Air Force disability discharge data are summarized.

### *Part I: Disability Discharges without an Accession Record*

Numbers are presented irrespective of accession records; the years shown refer to the year of discharge. The individuals being discharged could have been in the service for any number of years. Medical diagnosis categories are taken from the Veterans Administration Schedule for Rating Disability (see "Disability" in Section 4).

Table 1.66 shows the leading diagnoses for disability discharge for the Army. Data are shown for 2005 and separately for the period between 2000 and 2004. Clearly, the most common diagnosis cited for disability discharges in 2005 were diagnoses pertaining to the musculoskeletal system and muscle injuries, constituting 65.5% of disability discharges. The second leading cause of disability discharge was diseases of the trachea and bronchi (4.7% of discharges) followed by psychotic, mental organic, and psychoneurotic disorders (4.6% of discharges). The rank order of these conditions is the same as previous years.

**TABLE 1.66 DIAGNOSIS CATEGORIES FOR DISABILITY DISCHARGES FROM ACTIVE DUTY IN 2000-2004 VS 2005: ARMY**

Diagnosis category	2000-2004		2005	
	Count	%	Count	%
Musculoskeletal system, muscle injuries	22,625	63.0	6,085	65.5
Diseases of trachea and bronchi	2,463	6.9	440	4.7
Psychotic*, mental organic†, and psychoneurotic§ disorders	1,145	3.2	423	4.6
Organic diseases of central nervous system	847	2.4	203	2.2
Endocrine system	457	1.3	92	1.0
Diseases of eye, impairment of muscle function	186	0.5	78	0.8
Heart	220	0.6	59	0.6
Skin	144	0.4	54	0.6
Diseases of genitourinary system	191	0.5	35	0.4
Arteries	145	0.4	28	0.3
Other	6,875	19.1	1,674	18.0
Total	35,937	100.0	9,294	100.0

\* Schizophrenia, bipolar disorder, major depression, paranoid disorders, and psychoses.

† Various dementias.

§ Generalized anxiety disorders; psychogenic amnesia; psychogenic fugue; multiple personality disorder; conversion disorder; psychogenic pain disorder; phobic, obsessive compulsive dysthymic, adjustment, depersonalization and posttraumatic disorders; and hypochondriasis.

The leading diagnosis categories for disability discharges among active duty Air Force enlistees are summarized in table 1.67. The largest category, accounting for 34.6% of disability discharges in 2005, is disability related to the musculoskeletal system or muscle injuries. Relative to previous years, the percent of disability discharges attributed to the musculoskeletal systems increased in 2005. A smaller increase relative to previous years was observed in the second leading condition in 2005, diseases of the trachea and bronchi (13.5% in 2005 vs. 11.6% in 2000-2004). The third leading cause of disability discharge, psychotic, mental organic and psychoneurotic disorders, also constituted a higher percent of discharges than observed in previous years (6.5% in 2005 vs. 5.4% in 2000-2004).

**TABLE 1.67 DIAGNOSIS CATEGORIES FOR DISABILITY DISCHARGES FROM ACTIVE DUTY IN 2000–2004 VS 2005: AIR FORCE**

Diagnosis category	2000-2004		2005	
	Count	%	Count	%
Musculoskeletal system, muscle injuries	2,917	25.0	923	34.6
Diseases of trachea and bronchi	1,353	11.6	360	13.5
Psychotic*, mental organic†, and psychoneurotic‡ disorders	633	5.4	174	6.5
Endocrine system	467	4.0	65	2.4
Organic diseases of central nervous system	417	3.6	74	2.8
Heart	276	2.4	32	1.2
Hematologic and lymphatic systems	181	1.6	27	1.0
Systemic condition	169	1.4	18	0.7
Diseases of genitourinary system	163	1.4	13	0.5
Arteries	125	1.1	24	0.9
Other	4,428	37.9	858	32.1
Total	11,668	100.0	2,669	100.0

\* Schizophrenia, bipolar disorder, major depression, paranoid disorders, and psychoses.

† Various dementias.

‡ Generalized anxiety disorders; psychogenic amnesia; psychogenic fugue; multiple personality disorder; conversion disorder; psychogenic pain disorder; phobic, obsessive compulsive dysthymic, adjustment, depersonalization and posttraumatic disorders; and hypochondriasis.

## **Part II: Disability Discharges for Army and Air Force with Accessions**

Numbers of medical disability discharges within the first year of service among Army and Air Force recruits accessed during 2000-2005 are presented. Relative risks are used to compare the likelihood of disability discharge between demographic groups. The baseline group chosen for each comparison depends on the factor being considered. For factors with some inherent order (e.g., age group, which ranges from younger to older) it is the first or last group in that order, as appropriate. Otherwise, the baseline group is generally the largest group. Disability discharge data were unavailable for the Marines and Navy (see "Disability" in Section 4).

Table 1.68 shows the numbers of disability discharges reported among individuals accessed into the Army or Air Force enlisted service during each year from 2000 through 2005. Results are shown for each accession year groups with a full year of follow-up on each individual. The percentages of disability discharges within one year of service are increasing over time. In 2000, the percentage of disability discharge was 0.54% which increased to a high of 0.71% in 2004. Note that the rate is not shown for enlistees accessed in 2005, because follow-up data are only through the end of 2005, leaving less than a full year for these individuals.

**TABLE 1.68 DISABILITY DISCHARGES FOR ACTIVE DUTY WITHIN 1 YEAR OF SERVICE IN 2000-2005: BY YEAR**

Year	Total accessed	Discharged within 1 year of service	
		Count	%
2000	98,615	536	0.54
2001	90,652	509	0.56
2002	104,253	631	0.61
2003	95,988	592	0.62
2004	70,023	499	0.71
2005	63,798	171	-
Total	523,329		

Table 1.69 shows the active duty enlisted accessions that ended in a disability discharge by service. Relative to Army enlistees, accessions ending in disability discharge during the first year of service were significantly less likely among Air Force.

**TABLE 1.69 ACTIVE DUTY ARMY AND AIR FORCE ENLISTED ACCESSIONS ENDING IN DISABILITY DISCHARGE WITHIN 1 YEAR OF SERVICE IN 2000-2005: SERVICE<sup>a</sup>**

Service	Total accessed	Discharged within 1 year of accession	% Discharged	Relative risk	95% CI
Army	335,427	2,326	0.69	1.00	
Air Force	187,902	612	0.33	0.47	0.43,0.51

<sup>a</sup> The discharge rate is slightly underestimated due to incomplete follow-up data for those accessed in 2005.

The demographic characteristics of Army and Air Force accessions ending in disability discharge within one year are shown in tables 1.70-1.73. Females were about twice as likely as males to be discharged for disabilities. The risk of disability discharge also increased with age resulting in the highest risk of disability discharge in the oldest age group (over 30 years) relative to the youngest age group (17-20 years). In addition, each age group was significantly more likely to be discharged for disability within the first year following accession than the youngest age group. When examining the risk of disability discharge by race, blacks and those whose race was not reported were significantly less likely to be discharged due to disability relative to whites.

**TABLE 1.70 ACTIVE DUTY ARMY AND AIR FORCE ENLISTED ACCESSIONS ENDING IN DISABILITY DISCHARGE WITHIN 1 YEAR OF SERVICE IN 2000-2005: GENDER**

Gender	Total accessed	Discharged within 1 year of accession	% Discharged	Relative risk	95% CI
Male	413,532	1,885	0.46	1.00	
Female	109,789	1,053	0.96	2.10	1.95,2.27

**TABLE 1.71 ACTIVE DUTY ARMY AND AIR FORCE ENLISTED ACCESSIONS ENDING IN DISABILITY DISCHARGE WITHIN 1 YEAR OF SERVICE IN 2000-2005: AGE**

Age	Total accessed	Discharged within 1 year of accession	% Discharged	Relative risk	95% CI
17–20 yr	356,595	1,691	0.47	1.00	
21–25 yr	132,885	873	0.66	1.39	1.28,1.50
26–30 yr	26,637	252	0.95	2.00	1.75,2.28
>30 yr	7,210	122	1.69	3.57	2.97,4.28

**TABLE 1.72 ACTIVE DUTY ARMY AND AIR FORCE ENLISTED ACCESSIONS ENDING IN DISABILITY DISCHARGE WITHIN 1 YEAR OF SERVICE IN 2000-2005: RACE**

Race	Total accessed	Discharged within 1 year of accession	% Discharged	Relative risk	95% CI
White	369,217	2,218	0.60	1.00	
Black	90,261	382	0.42	0.70	0.63,0.79
Other	39,551	187	0.47	0.79	0.68,0.91
Missing*	24,300	151			

\* A much higher number of applicants declines to provide information on race than on other demographic factors.

Table 1.73 shows the education level and associated risk of disability discharge for enlisted Army and Air Force accessions within one year of service. When considering education, the least likely group to be discharged charged for disability was those with less than a high school education. There was no significant difference in likelihood of disability discharge between this group and any of the other education groups during the first year of service. It should be noted that disability discharge during the first year of service is a fairly rare phenomenon across the services.

**TABLE 1.73 ACTIVE DUTY ARMY AND AIR FORCE ENLISTED ACCESSIONS ENDING IN DISABILITY DISCHARGE WITHIN 1 YEAR OF SERVICE IN 2000-2005: EDUCATION LEVEL**

Education level	Total accessed	Discharged within 1 year of accession	% Discharged	Relative risk	95% CI
Below HS grad	6,241	38	0.61	1.00	
HS diploma	451,543	2,480	0.55	0.90	0.66, 1.24
Some College	16,096	138	0.86	1.41	0.98, 2.01
Bachelor's or Higher	13,916	103	0.74	1.22	0.84,1.76
Missing	35,533	179			

\*Encompasses the following three cases: 1) one who is pursuing completion of the GED or other test-based high school equivalency diploma, vocational school, or secondary school, etc; 2) one who is not attending high school and who is neither a high school graduate nor an alternative high school credential holder; 3) one who is attending high school and is not yet a senior.

Table 1.74 shows the numbers and likelihood of disability discharge within the first year of service by AFQT percentile score. No significant difference was found when comparing the likelihood of disability discharge within one year of service by AFQT score.

**TABLE 1.74 ACTIVE DUTY ARMY AND AIR FORCE ENLISTED ACCESSIONS ENDING IN DISABILITY DISCHARGE WITHIN 1 YEAR OF SERVICE IN 2000-2005: AFQT SCORE**

AFQT score	Total accessed	Discharged within 1 year of accession	% Discharged	Relative risk	95% CI
93-99	28,189	159	0.56	1.00	
65-92	189,218	1,088	0.57	1.02	0.86,1.20
50-64	144,800	821	0.57	1.01	0.85,1.19
30-49	141,635	785	0.55	0.98	0.83,1.16
11-29*	17,095	83	0.49	0.86	0.66,1.12
Missing	2,392	2			

\*Individuals scoring in the 10 percentile or lower are prohibited from applying.

### 3. DATA SOURCES

AMSARA requests and receives data from various sources, most of which are the primary collection agencies for the data they provide to AMSARA. Because data are seldom collected with the goal of epidemiologic study, AMSARA coordinates with the appropriate points of contact to ensure that the following major data types needed for AMSARA studies are in an appropriate form for epidemiologic work.

As mentioned under “Charter and Supporting Documents,” AMSARA maintains strict confidentiality of all data it receives. No external access to the data is allowed, and internal access is limited to a small number of primary analysts on an as-necessary basis. Research results are provided only at the aggregate level, with no possibility of individual identification.

#### MEPS

AMSARA receives data on all applicants who undergo an accession medical examination at any of the 65 MEPS sites. These data, provided by MEPCOM Headquarters (North Chicago, IL), contain several hundred demographic, medical, and administrative elements on recruit applicants for each applicable branch (regular enlisted, reserve, National Guard) of each service (Air Force, Army, Coast Guard, Marines, and Navy). These data also include records on a relatively small number of officer recruit applicants and other nonapplicants receiving periodic physical examinations.

From the data records provided by MEPCOM, AMSARA extracts personal, medical, and administrative variables that are often of use in studies of military attrition. These include personal identifiers (e.g., name and SSN) for linking with other data, demographics (e.g., gender, age, and race), and a wide range of other information that is often relevant to military attrition studies (e.g., intended service, education level at the time of application, and AFQT scores).

In addition, the MEPS records provide extensive medical examination information, including date of examination, medical qualification status, medical disqualification codes (where relevant), and any waiver requirements. Results of some specific tests are also extracted, including those for hearing/vision, alcohol/drug use, and measurements of height, weight, and blood pressure.

A medical disqualification is categorized as either temporary (condition that can be remediated, e.g., being overweight) or permanent (condition that remains with the applicant, e.g., history of asthma). For those applicants with a permanent disqualification, an accession medical waiver from a service-specific waiver authority is required for the applicant to be eligible for accession into the service (see “Waiver”).

MEPS data are the primary source of demographic information on new accessions into the armed forces and of initial medical conditions and medical qualification status. These data are linked by AMSARA to Defense Manpower Data Center (DMDC) gain files (see “Active Duty Enlistee Gain/Loss”) to verify new accessions into the military and to provide benchmark descriptive statistics. These linked data are also used in epidemiologic investigations related to the military’s accession medical standards, such as selecting and matching subjects for survival studies to compare retention patterns among new recruits with various medical histories.

## Active Duty Enlistee Gain and Loss Files

The Defense Manpower Data Center (DMDC) provides data on individuals entering military service (gain or accession) and on individuals exiting military service (loss). Gain and loss data, which are AMSARA's primary sources of information about who is, or has been, in the military, include when an individual began duty and when or if an individual exited the military. From this information the length of service can be determined for any individual entering and leaving during the periods studied. This information is vital to survival analyses and attrition studies presented in several AMSARA annual reports.

Gain data include approximately 50 variables. Of these, AMSARA has identified 25 of primary interest: personal identifiers (e.g., name and SSN) for linking with other data, demographics (e.g., age, education, and AFQT score) at the time of accession, and service information (e.g., date of entry and IET site). These data are combined with MEPS data to determine accession percentages among applicants by demographic and other variables. Also, as mentioned under "MEPS," these linked data are used in epidemiologic investigations related to the military's accession medical standards.

Loss data also include approximately 50 variables, many of which are the same as those found in the gain file, although they reflect the individual's status at the time of loss rather than at the time of gain. The variables of primary interest to AMSARA are personal identifiers for linking with other data, the loss date for computing length of service, and the interservice separation code as a secondary source of the reason for leaving the military. These data serve as the primary source of information on all-cause attrition from the service and are linked with the MEPS and gain data for studies of attrition.

A problem with the loss data lies in the broad nature of the interservice separation code that characterizes the cause of the loss. Although each service maintains its own codes for describing discharge reasons, these are replaced at DMDC by a consolidated interservice separation code to provide a common coding system for all military discharges. Many categories have overlapping definitions, making it difficult to determine the real reason for discharge. For example, a discharge for EPTS pregnancy might be coded "pregnancy," "condition existing prior to service," or "fraudulent enlistment." This lack of specificity, as well as interservice differences in discharge categorizations, has been encountered in comparing other sources of loss information (i.e., EPTS and disability discharge data) with the DMDC loss data. Moreover, a study of Army discharges at one IET site indicates that the reasons underlying many discharges are more complex than can be fully characterized by any single **loss code**.

## Medical Waiver

AMSARA receives records on all recruits who were considered for an accession medical waiver, i.e., those who received a permanent medical disqualification at the MEPS (see "MEPS") and sought a waiver for that disqualification. Each service is responsible for making waiver decisions

about its applicants. Data on these waiver considerations are generated and provided to AMSARA by each service waiver authority. Although the specifics of these data vary by service, they generally contain identifiers (e.g., name and SSN) for linking with other data, demographics (e.g., gender, age, and race), and information about the waiver consideration.

In particular, each record contains the date of the waiver consideration, indicators of the medical condition(s) for which the waiver was required, and the decision of the waiver authority. The Air Force and Army indicate medical conditions being considered for waiver using the full set of diagnostic codes in ICD-9, whereas the Navy and Marines code waiver conditions according to the subset of ICD-9 codes presented in DoD Instruction 6130.4 in association with medically disqualifying conditions.

Many AMSARA studies begin with the waiver data. Individuals granted waivers for a particular medically disqualifying condition are matched to the DMDC gain file to determine their date of entry, if any, into the service. Those found to have begun active duty within a specified time constitute the pool from which the main study subjects, and often their comparison subjects, are drawn. Follow-up medical and attrition information during military service is appended to these records, and statistical comparisons can then be made. Specific details vary among studies. A few additional details of the data provided by each service waiver authority follow.

It should be noted that there are considerable changes over time in the numbers of waiver considerations and percentages approved for various conditions. While some of these changes are attributable to changed accession standards, others appear more likely to have resulted from changes in coding procedures or other unknown factors. AMSARA will work with the services' waiver authorities to reconcile these findings.

### ***Air Force***

The Air Force Directorate of Medical Services and Training (Lackland AFB, TX) transmits, upon request, data on all officer and enlisted accession medical waivers. These data include SSN, name, demographics, action (e.g., approved, disapproved, other), and date of waiver consideration. In addition, ICD9 codes are used to define the medically disqualifying condition(s) for which the waiver is being considered.

### ***Army***

The Army Recruiting Command (Fort Knox, KY) has provided monthly electronic accession medical waiver data since January 1997. Each data record contains name, SSN, action (e.g., approved, disapproved, other), and date of waiver consideration. In addition, ICD9 codes are used to define the medically disqualifying condition(s) for which the waiver is being considered.

### ***Marines***

The Navy Bureau of Medicine and Surgery (BUMED) in Washington, DC, provides, on request, accession and commissioning medical waiver data for enlisted personnel and officers, along with data from special programs such as ROTC and the Naval Academy. Data include name, SSN, demographics, date of waiver consideration, and recommended action (e.g., approved, disapproved, other). In addition, the subset of ICD9 codes listed in DoD Instruction 6130.4 is used to indicate the medically disqualifying condition(s) for which the waiver is being considered.

## **Navy**

The Office of Commander, Navy Recruiting Command (Millington, TN) provided accession medical waiver data on applicants for enlisted service in the Navy that occurred from May 2000 to December 2005. Before May 2000, enlisted medical accession waivers for the Navy were considered by BUMED, which then provided data to AMSARA.

## **Hospitalization**

The MEDCOM Patient Administration Systems and Biostatistics Activity at Fort Sam Houston, TX has provided hospitalization data on a yearly basis for all services except the Coast Guard. These data contain information on admissions of active duty officers and enlisted personnel to any military hospital. Information on each visit includes SSN for linking with other data, demographics (e.g., gender, age, and race), and details about the hospitalization. In particular, the medical nature of the hospitalization is coded according to the ICD9, with up to eight codes per record to describe all conditions found. Date of admission, date of disposition, number of sick days, number of bed days, and indicators of the medical outcome are also included.

## **EPTS Discharges**

Discharges for EPTS medical conditions are of vital interest to AMSARA. A discharge for a medical condition can be classified as an EPTS discharge if the condition was verified to have existed before the recruit began service and if the complications leading to discharge arose no more than 180 days after the recruit began duty. MEPCOM requests a copy of official paperwork on all EPTS discharges and records certain information about each. This information includes a rough medical categorization (20 categories) of the reason(s) for discharge and a judgment on each discharge regarding why (i.e., concealment, waiver, or unawareness) the person was not rejected for service on the basis of the preexisting condition. Beginning in August 1996, this paperwork has been regularly forwarded by MEPCOM to AMSARA for additional data extraction, including more specific coding of medical conditions leading to discharge.

The primary concern with the EPTS discharge data is completeness. Table 3.1 summarizes the numbers of records provided to AMSARA over 2000-2005. Note that the numbers of records have been unstable over time for nearly all IET sites. For example, the numbers of EPTS records provided by the Marine Corps Training Depot in San Diego dropped considerably in 2001 from those that had previously been provided, and the numbers have remained surprisingly low since then. Within the Army, EPTS provided by Forts Sill and Knox are considerably lower for 2005 than for prior years. Although some variability in numbers of EPTS records over time is expected, underreporting is clearly a major source of the fluctuations.

**TABLE 3.1. EPTS DISCHARGE DATA REPORTED TO MEPCOM BY TRAINING SITE AND YEAR\***

Training site	2000	2001	2002	2003	2004	2005	Total
Air Force** Lackland AFB	107	227	784	754	649	590	3,111
Army							
Fort Jackson	356	675	822	1,241	1,228	991	5,313
Fort Leonard Wood	1,578	1,487	864	684	741	574	5,928
Fort Benning	1,212	1,128	1,370	1,242	1,495	1419	7,866
Fort Sill	795	148	314	697	567	204	2,725
Fort Knox	598	650	582	546	376	222	2,974
Marines							
Parris Island	551	751	1,080	928	1,316	1321	5,947
San Diego	656	193	140	372	138	169	1,668
Navy							
Great Lakes	1,919	1,861	1873	1,246	842	1165	8,906
Total	7,772	7,120	7,829	7,710	7,352	6,655	44,438

\* Numbers may not sum to totals shown in Section 2 because information from specific training sites is incomplete and other requirements for records are different.

\*\* Air Force did not provide EPTS discharge records in April 2000–September 2001

AMSARA has addressed many of these data inconsistencies with on-site officials and continues to emphasize the importance of these data to assessing and improving the fitness of future recruits.

In light of these shortcomings in the data, comparisons of EPTS discharges across services, or even across different training sites within the same service, should be interpreted with caution. Disparities may reflect differences in reporting procedures more than actual differences in discharge likelihood. Furthermore, counts of EPTS records should not be construed as representing all EPTS discharges. Instead, EPTS counts only represent discharges for which data were reported.

## Disability Discharges

Data on disability discharge considerations are compiled separately for each service at its disability agency. The Army agency has provided data on all disability discharge considerations during 1995–2005 and continues to provide these data. The Air Force agency has also provided data to cover the 1995–2005. The Navy/Marine agency has provided data only on a diagnosis-specific request basis rather than for all actions. Therefore, only Army and Air Force disability discharge data were summarized in Section 2.

The Army physical disability agency provides information on all disability cases considered, including personal identifiers (e.g., name and SSN), program (e.g., regular enlisted, academy, and officer), date of consideration, and disposition (e.g., permanent disability, temporary

disability, or return to duty as fit). For individuals receiving a disability discharge, medical condition codes and degree of disability are also included.

The Air Force Physical Disability Division provides data on all disability cases it considers, including much of the same information as outlined for the Army. Specifically, these data include personal identifiers (e.g., name and SSN), rank, date of consideration, and disposition (e.g., permanent disability, temporary disability, or return to duty as fit). For individuals receiving a disability discharge, medical condition codes and degree of disability are also included.

For both the Army and Air Force data, the medical condition(s) involved in each case are described using the condition codes of the Veterans Administration Schedule for Rating Disabilities. This set is less comprehensive than the ICD9 codes. In some cases the disabling condition has no associated code, so the code most closely resembling the true condition is used. AMSARA therefore only uses broad categories of disability condition codes rather than attempting to interpret specific codes.

# Charter and Supporting Documents

HA Control #: NONE  
Due Date: NONE

February 28, 1995

ASSISTANT SECRETARY OF DEFENSE  
(HEALTH AFFAIRS)  
EXECUTIVE SUMMARY/COVER BRIEF

MEMORANDUM FOR THE ASSISTANT SECRETARY OF DEFENSE  
(HEALTH AFFAIRS)

THROUGH: *Jm* Dr. Sue Bailey, DASD (CS)  
FROM: Action Officer, Colonel Ed Miller  
SUBJECT: Accession Medical Standards Analysis and Research  
Activity (AMSARA)

PURPOSE: SIGNATURE--on request that the Assistant Surgeon  
General of the Army (Research and Development)  
establish an Accession Medical Standards Analysis  
and Research Activity (AMSARA).

DISCUSSION:  
The Accessions Medical Standards Working Group  
which met over the summer sponsored through MFIM  
funding completed a functional economic analysis  
of the medical accessions examination process.  
One of the critical recommendations made by the  
Group was to establish a research activity to  
provide the Medical Accessions Standards Council  
(also recommended) with an evidence-based analysis  
of DoD accessions medical standards. The  
memorandum tasks the Army with the responsibility  
of establishing the activity resourced under the  
Defense Health Program. This has already been  
staffed with the Assistant Surgeon General of the  
Army (Research and Development)

RECOMMENDATION:  
Sign tasking memorandum to Army Surgeon General.

COORDINATION:  
✓ Mr. Conte, PDUSD(P&R) \_\_\_\_\_  
✓ Mr. Maddy, HB&P: See attached memo  
✓ Mr. Richards, EO: \_\_\_\_\_  
Dr. Martin, PDASD: \_\_\_\_\_

## CHARTER AND SUPPORTING DOCUMENTS



HEALTH AFFAIRS

THE ASSISTANT SECRETARY OF DEFENSE

WASHINGTON, D. C. 20301-1200

DEC 06 1995

MEMORANDUM FOR SURGEON GENERAL OF THE ARMY

SUBJECT: Military Medical Standards Analysis and Evaluation Data Set

The personnel community has asked OASD/HA to develop a fact based accessions policy to minimize medical attrition, quantitate risk in medical waivers, and to defend accession decisions when challenged.

The offices of Clinical Services and Military Personnel Policy have worked closely with epidemiologists at Walter Reed Army Institute of Research on the concept of a Military Medical Standard Analysis and Evaluation Data Set (MMSABDS) to apply quantitative analysis to a longitudinal data base.

The Army Center for Health Promotion and Preventive Medicine (CHPPM) maintains a data base of personnel, hospitalization, deployment and separation information for all Services. I would like WRAIR, in coordination with CHPPM, to serve as consultants to the Accession Medical Standard Steering Committee, modify and maintain the data base, and coordinate field research to answer specific questions germane to accession policy.

Therefore, I request that, by the end of December 1995, a proposal be submitted through you from WRAIR, outlining the consultant role and modifications needed to the data base. This should include funding requirements.

*Edward D. Martin /br*  
Stephen C. Joseph, M.D., M.P.H.

cc:  
Commander WRAIR

**DEPARTMENT OF DEFENSE**  
**ACCESSION MEDICAL STANDARDS**  
**STEERING COMMITTEE**

**CHARTER**

**I. ESTABLISHMENT, PURPOSE AND SCOPE**

**A. ESTABLISHMENT**

The Under Secretary of Defense (Personnel and Readiness) establishes a Department of Defense Accession Medical Standards Steering Committee (hereafter referred to as the "Committee".) The Committee shall operate under the joint guidance of the Assistant Secretaries of Defense (Force Management Policy and Health Affairs [FMP & HA].)

**B. PURPOSE**

The Committee's main objective is to ensure the appropriate use of military members with regard to medical/physical characteristics, assuring a cost-efficient force of healthy members in military service capable of completing initial training and maintaining worldwide deployability. The primary purposes of the Committee are: (1) integrating the medical and personnel communities in providing policy guidance and establishing standards for accession medical/physical requirements, and (2) establishing accession medical standards and policy based on evidence-based information provided by analysis and research.

**C. SCOPE OF ACTIVITY**

1. The Committee's responsibility involves:

- a. Providing policy oversight and guidance to the accession medical/physical standards setting process.
- b. Directing research and studies necessary to produce evidenced-based accession standards making the best use of resources.
- c. Ensuring medical and personnel coordination when formulating accession policy changes.
- d. Overseeing the common application of the accession medical standards as outlined in DoD Directive 6130.3, "Physical Standards for Appointment, Enlistment, and Induction."

e. Interfacing with other relevant Department of Defense and Department of Transportation organizations.

f. Recommending promulgation of new DoD directives as well as revisions to existing directives.

g. Recommending legislative proposals concerning accession medical/physical processing.

h. Reviewing, analyzing, formulating and implementing policy concerning the accession physical examination.

i. Issuing policy letters or memoranda providing interpretation of provisions of DoD directives.

j. Resolving conflicts of application of accession medical/physical standards and policies among the Military Services and other authorized agents.

k. Maintaining records and minutes of Committee meetings.

## II. ORGANIZATION

A. The Committee will be co-chaired by the Deputy Assistant Secretary of Defense (Military Personnel Policy) and the Deputy Assistant Secretary of Defense (Clinical Services). This will facilitate tasking the Deputy Chiefs of Staff for Personnel and the Surgeons General to assign staffers to relevant working groups, and to ensure DCS/Personnel and Surgeon General personal involvement with the various issues. The Committee will convene semiannually, at a minimum, and at the discretion of the Chairpersons.

B. Committee members are appointed by the Under Secretary of Defense (Personnel and Readiness) and provide ongoing liaison with their respective organizations concerning matters of medical/physical accession policy.

C. The Committee shall be composed of representatives from the following:

Office of the Assistant Secretary of Defense (Force Management Policy)

Office of the Assistant Secretary of Defense (Health Affairs)

Office of the Assistant Secretary of Defense (Reserve Affairs)

Office of Service Surgeons General

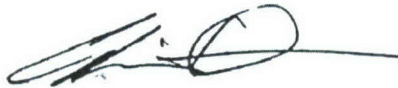
Office of Service Deputy Chiefs of Staff for Personnel, and Chief of Personnel and Training, HQ U.S. Coast Guard.

D. Representatives from the Office of the Assistant Secretary of Defense (Force Management Policy) and the Office of the Assistant Secretary of Defense (Health Affairs) shall serve as executive secretaries for the Committee, and maintain a working group, composed of representatives from each of the offices mentioned above, to receive and review issues pertinent to accession policy.

E. The Commander, U.S. Military Entrance Processing Command, and the Director, DoD Medical Examination Review Board shall serve as advisors to the Committee.

F. The Committee may invite consultants (i.e., training, recruiting, epidemiology) at the discretion of the Chairpersons.

Approved: JAN 16 1996  
Date



EDWIN DORN

## Acronyms

ADHD	attention deficit and hyperactivity disorder	HS	high school
AFB	Air Force base	ICD-9	<i>International Classification of Diseases, 9<sup>th</sup> Revision</i>
AFQT	Armed Forces Qualification Test	IET	Initial Entry Training
AMSARA	Accession Medical Standards Analysis and Research Activity	MEDCOM	Medical Command
AMSWG	Accession Medical Standards Working Group	MEPCOM	Military Entrance Processing Command
ARMS	Assessment of Recruit Motivation and Strength	MEPS	Military Entrance Processing Station
BMI	body mass index	OBF	over body fat
BUMED	Navy Bureau of Medicine and Surgery	ROTC	Reserve Officer Training Corps
CI	confidence interval	RR	relative risk
CMG	Clinical Management Guideline	SD	standard deviation
DMDC	Defense Manpower Data Center	SSN	social security number
DNT	did not take	TRADOC	Training and Doctrine Command
DoD	Department of Defense	VO <sub>2</sub>	oxygen volume
EPTS	existed prior to service	WRAIR	Walter Reed Army Institute of Research
GED	general educational development	YRBSS	Youth Risk Behavioral Surveillance Survey