

AMSARA

Accession Medical Standards Analysis & Research Activity

Attrition & Morbidity Data
for FY 2008 Accessions



Annual Report 2009



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Executive Summary

The Accession Medical Standards Analysis and Research Activity (AMSARA) has completed its twelfth year of providing the Department of Defense with evidence-based evaluations of accession standards. AMSARA evaluates accession medical standards and retention programs to improve military readiness by maximizing both the accession and retention of motivated and capable recruits. This report provides findings from selected special studies and descriptive data on fiscal year 2008 accessions. This is the first AMSARA annual report analyzing data by fiscal rather than calendar year.

Section 1 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 FY08 and are compared to the five year aggregate data from fiscal years 2003-2007. Data are collected while the recruits remain on their first year of active duty. By convention, the annual report is dated for the first complete year after enlistment (fiscal year 2008). Comparisons can be made between services and on occasion between enlisted component (active, reserve, guard).

Approximately 326,920 Active, Reserve, and National Guard enlisted applicants were examined for medical fitness at Military Entrance Processing Stations (MEPS) in 2008 compared to approximately 309,397 per year average from 2003 to 2007. While the age, gender, and race, of active duty enlisted, reserves, and guard applicants remained relatively consistent, it was observed that a greater proportion of active duty applicants in 2008 had a high school diploma compared to the previous five years. In 2008 a greater percentage of Reserve enlisted applicants scored in the lowest Armed Forces Qualification test (AFQT) percentiles for military eligibility (11-49th) as compared to the previous 5-year period, while lower percentile AFQT categories for active and national guard components were consistent with the previous 5-year period.

Approximately 8% of applicants for active duty enlisted service were initially disqualified for service due to permanently disqualifying medical conditions, and another 10% 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 approximately 47% (2003-2007) of applicants with temporary disqualifications and 45% (2003-2007) of applicants with permanently disqualifying conditions are subsequently gained onto active duty service, compared to 73% of fully qualified recruits who accessed. The most common reasons for medical disqualifications in 2008 were exceeding weight/body fat limits and nondependent abuse of cannabis, both considered temporary disqualifications. These were followed by disorders of refraction and accommodation and hearing deficiency, both of which are permanent disqualifications.

Accession medical waivers are considered by each service for applicants with a disqualifying medical condition. Accordingly, the conditions most frequently considered for a waiver closely reflect the most common permanently disqualifying conditions. In total, almost 29,000 applications for accession medical waivers were considered in 2008. The percentage of waivers approved varies substantially by the medical condition being considered, with overall approval percentages ranging from 55 percent to almost 100 percent for the most commonly applied for and most highly approved waivers. 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 needs of each service. There have been no apparent trends in approval rates from 2003 to 2008 for the services.

Hospitalization data are provided for the period 2003-2008. In 2007, there were approximately 7,400 hospitalizations among active duty enlistees (all services) in the first year of service. The top reasons for hospitalization within the first year of service for all services in 2003-2008 were psychiatric conditions, pneumonia and influenza, and skin and subcutaneous infections. During the first two years of service, psychiatric conditions remained the most frequent reason for hospital admissions. However, the frequency of hospitalizations for both complications of pregnancy and injuries increased dramatically when compared to the first year of service and these categories moved into the second and third most common reasons for hospital admissions respectively. For first-time active duty enlistees who accessed in 2002-2007, Army enlistees had the highest risk of hospitalization followed by the Marines with the second high risk. Navy enlistees had the lowest risk of hospitalization. Being female, white, older in age at enlistment, and having a lower military aptitude score (AFQT) were risk factors for hospitalization.

All-cause attrition of first-time active duty recruits following 90, 180, 365, and 730 days of service is also described. At one year, the Army had the highest rate of attrition for all services considered (approximately 15%) while the Marines had the lowest (about 12%). Being female, increasing age (except for the >30 category), and scoring in the lower percentile groups on the AFQT are all characteristics associated with significantly higher attrition at all points of assessment.

Discharges of recent enlistees for medical conditions that existed prior to service 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. The total numbers of reported discharges have remained relatively stable over time, ranging from a high of approximately 8,000 in 2003 to a low of about 6,100 in 2006, with approximately 7,300 in 2008. Variation by training base over time has been significant.

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. Psychiatric conditions, orthopedic conditions, and asthma continue to be the most common causes of EPTS discharges reported to USMEPCOM. Risk of EPTS discharge varies by service, with those in the Air Force having the lowest risk and Marines the highest. Increased risk of EPTS discharge is observed for females, recruits older than 20 years of age at accession, whites, and for those recruits who scored in the lower AFQT percentile score groups.

Disability discharge is very infrequent among new Army or Air Force enlistees, with less than one percent of enlistees being considered for such a discharge. However, disability discharge among these first year enlistees within the first year of service has increased from 2003 (0.62%) to 2007 (0.93%) (2008 is not reported here due to incomplete follow up time). The majority of disability discharges for both Army and Air Force during the first year of service were prosthetic implants and diseases of the musculoskeletal system and impairments and diseases of the spine, skull, limbs, and extremities. Data on Navy and Marine disability discharges were not available to AMSARA for this Annual Report.

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 13 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 classification and reporting from the IET sites to MEPCOM, which is still passive, should be mandated and standardized by DoD/service regulations. Analysis would be enhanced with conversion from paper to digital records.
3. AMSARA should continue prospective studies similar to the Assessment of Recruit Motivation and Strength (ARMS) (a study evaluating those who exceed Army body fat standards using a physical fitness test on accession) 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 servicemember'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 Under Secretary 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 Under Deputy Assistant Secretary of Defense (Military Personnel Policy) and the Deputy Assistant Secretary of Defense (Clinical and Program Policy) and comprises representatives from the Office of the Assistant Secretary of Defense (Force Health Protection and Readiness), 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 Health and Safety Directorate (Department of Homeland Security, 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 MAJ Sheryl Bedno, Chief, AMSARA, COL Melinda Cavicchia, Chief, Epidemiology, COL David Niebuhr, Director, Division of Preventive Medicine.

AMSARA is augmented with contract support through Allied Technology Group, Inc. Staff in 2009 included Dr. David N. Cowan, Project Manager; Weiwei Han, and Bin Yi Statisticians; Elizabeth Packnett, Matthew Barker and Jonathan Mayo, Analysts; Janice Gary, Data Manager; and Vielka Rivera, Program Administrative Assistant.

1. DESCRIPTIVE STATISTICS FOR APPLICANTS AND ACCESSIONS FOR ENLISTED SERVICE

The characteristics of the source populations applying for enlisted service in the Active Duty, Reserve, and National Guard components of the military are described from fiscal year 2003 to fiscal year 2008. For Active Duty applicants, subsequent accessions and attritions are also shown. An enlistee *applicant* is the individual who presents to a Military Entrance Processing Station (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 fiscal year (FY).
- The “Accessions” shown in the following tables are from among the “Applicants” shown in the relevant preceding column. For example, columns showing fiscal year 2008 accessions are summarizing accessions only among individuals who applied for service in fiscal year 2008. Notation is made when complete follow-up is not available.
- Only data through fiscal year 2008 are included. Therefore, numbers and percentages gained (i.e. accessions) among applicants in 2008 refer only to those gained through September 30, 2008. For legitimate comparison of accession among applicants in 2008 and the previous five years, we calculated a within fiscal year accession rate, which takes into account only accessions that occurred in the same fiscal year as the MEPS physical. Therefore, when 2008 and 2003-2007 figures are compared, the follow up time for observing accessions will be comparable.
- To derive percentages and rates, data sets were merged at the individual level by Social Security Number (SSN). For example, in determining the percentage of individuals gained in 2008 who received a discharge, only discharges with a SSN matching a 2008 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 value 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,” “Attrition,” “EPTS Discharges,” and “Disability Discharges among Army and Air Force Active Duty Enlistees,” age, education level, and Armed Forces Qualification Test (AFQT) score at 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 remediated, such as being overweight or recently using marijuana. Permanent medical disqualifications are for all other disqualifying conditions described in DoD Instruction 6130.4.

- The Department of Defense Instruction (DoDI) 6130.3 was superseded by DoDI 6130.4 in 2005. This change is reflected in the coding of Existing Prior to Service (EPTS) discharge conditions beginning in 2006. The updated classification system incorporated several extensive revisions with codes corresponding to psychiatric disorders and orthopedic conditions being the most heavily impacted. Given the breadth and scope of disease reclassification, it is difficult, if not impossible, to directly compare EPTS data from 2006 to that from previous years; therefore these data are presented in separate tables.
- The disease classification coding system outlined by DoDI 6130.3 is employed by the Navy and Marine Corps waiver authorities. At this time, there is no evidence to suggest that the Marine Corps has adopted the revised coding system and it is therefore possible to compare waiver data from 2008 to the same data from previous years. However, the Navy waiver authority began using a new coding system in 2006. Therefore, waiver data from 2006 through 2008 are not comparable to data from previous years.
- Beginning in the FY 2008 Annual report, the way International Classification of Diseases, 9th revision (ICD-9) codes are summarized was revised in order to establish more uniform granularity over the range of ICD-9 codes reported for MEPS disqualification and Army and Air Force waivers. This was done by selecting a subset of codes based on expert opinion that were exceptionally broad and reporting them to four digits rather than three (summarized in Table 1.1). For example, 493 is specific to asthma whereas 733 denotes a diverse array of bone and cartilage disorders, which include osteoporosis, pathologic fractures, bone cysts, and aseptic necrosis. Please note, when a majority of codes examined out to the fourth digit do not have a fourth digit (either due to insufficient information at time of coding or to errors) it is possible to have a three-digit code appear in the top-20 medical conditions tables, even though the raw codes were examined out to the fourth digit. Such codes are treated as a distinct category and are in no case to be considered a parent term if a more specific code is present. For example, the ICD-9 groups specified by 785 and 785.0 are mutually exclusive categories and the latter is not a subset of the former.
- In the FY 2008 Annual Report, the method in which multiple MEPS applications were consolidated was modified so that applications from individuals to multiple components were retained but stored in separate datasets. Therefore, a single applicant may be represented in one, two, or all three of the component-specific MEPS application datasets. The number of applicants for each year in this annual report may be higher than that documented in the previous report and therefore Active Duty accession rates calculated in the current report will be lower than shown previously.

TABLE 1.1 LIST OF ICD-9 CODING GROUPS SUMMARIZED TO THE FOURTHTH DIGIT STARTING IN FY 2008 ANNUAL REPORT

ICD-9 [†]	Condition
272	Disorders of lipid metabolism
305	Nondependent abuse of drugs
306	Physiological malfunction arising from mental factors
307	Special symptoms or syndromes, not elsewhere classified
718	Other derangement of joint
719	Other and unspecified disorders of joint
724	Other and unspecified disorders of back
726	Peripheral enthesopathies and allied syndromes
733	Other disorders of bone and cartilage
746	Other congenital anomalies of heart
754	Certain congenital musculoskeletal deformities
756	Other congenital musculoskeletal anomalies
780	General symptoms
783	Symptoms concerning nutrition, metabolism, and development
784	Symptoms involving head and neck
785	Symptoms involving cardiovascular system
795	Other and nonspecific abnormal cytological, histological, immunological and DNA test findings
796	Other nonspecific abnormal findings
995	Certain adverse effects not elsewhere classified

[†] Differences in the level of coding specificity (3-digit vs. 4-digit) over time can lead to misleadingly large disparities in the incidence estimates for particular disease or condition categories when comparing current year data to the previous 5-year period. For example, if the code 272.0 is used in 2006 and 2007 where previously 272 was used, the top twenty condition categories for 2008 would appear to indicate that pure hypercholesterolemia is an emerging vs. established problem.

Active Duty Applicants at MEPS with Accession Records

Tables 1.2 through 1.9 describe the population of applicants who received an accession medical examination and subsequent accessions for Active Duty enlisted service in the Army, Navy, Marine Corps, and Air Force. Table 1.2 shows the number of applicants and the percentage of subsequent accessions among applicants between fiscal years 2003-2007 and in the fiscal year 2008. The percentage of accessions is presented in two ways: 1) total accessions through FY 2007 and 2) accession within the same fiscal year as application. The presentation of the average “within fiscal year” accession rate for the years 2003-2007 provides a fair basis for the comparison of the “within fiscal year” accession rate for 2008.

TABLE 1.2 ACCESSIONS FOR ENLISTED APPLICANTS AT MEPS WHO RECEIVED A MEDICAL EXAMINATION BY SERVICE: 2003-2007 vs. 2008

Service	2003 – 2007			2008	
	Applicants	Accession rate within fiscal year	Accession rate overall	Applicants	Accession rate within fiscal year
Army	423,509	44.5	59.8	79,812	52.7
Navy	255,182	33.7	68.3	56,396	33.0
Marines	213,694	40.8	71.0	50,899	41.8
Air Force	175,676	42.3	79.5	34,202	37.4
Total	1,068,061	-	-	221,309	-

The average within fiscal year accession rate for the Army was 44.5% in 2003-2007 while the within fiscal year rate for 2008 was increased significantly (52.7%). The average within fiscal year accession rate for the Air Force was 42.3% in 2003-2007 while the within fiscal year rate for 2008 was 37.4%. For the remaining services the within fiscal year accession rate for 2008 was nearly the same as the average within fiscal year rate for 2003-2007.

Table 1.3 shows the number of applicants for enlisted service by year for FY 2003-2008 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. Due to the lack of full two-year follow-up data for 2007 applicants and one year follow-up for 2008 applicants, the corresponding accession rates were underestimated (see note below Table 1.3). The accession rates within one year of application between 2003-2005 were lower than those rates for 2006 and 2007.

TABLE 1.3 ACCESSIONS WITHIN ONE AND TWO YEARS OF APPLICATION FOR ENLISTED APPLICANTS AT MEPS WHO RECEIVED A MEDICAL EXAMINATION IN 2003-2008

Year of exam	Applicants	No. within 1 year of application	% within 1 year of application	No. within 2 years of application	% within 2 years of application
2003	250,323	149,945	59.9	159,759	63.8
2004	207,970	114,004	54.8	123,776	59.5
2005	189,125	113,093	59.8	122,550	64.8
2006	214,303	147,413	68.8	155,162	72.4
2007	206,340	142,965	69.3	149,193	72.3 [†]
2008	221,309	95,596	43.2 [†]	95,596	-
Total	1,289,370	763,016	-	806,036	-

[†] The proportion of applicants who accessed was underestimated due to a lack of sufficient follow-up data since only accessions up through 2008 are reported in the above table.

Tables 1.4 through 1.8 show demographic characteristics (at time of application) and accession rates for the applicant pools in FY 2003-2007 and FY 2008. Most applicants in 2008 were male (82.8%), aged 17-20 years (69.7%), and white (75.3%, excluding applicants who declined to provide their racial status and those with missing records). Nearly one-third of applicants (32.3%) had not completed high school at the time of application, many of whom are thought to be in the Delayed Entry Program (DEP). This demographic profile is consistent with the demographic profile of the applicants in 2003 through 2007 with the exception of education. In 2003-2007 and 2008, applicants with a high school diploma or less accounted for over 96% of all applicants, although the proportion of recruits with a high school diploma was higher in 2008 (64.2%) compared to the previous five years (59.6%). The demographic distributions of accessions largely reflect the applicant population with regard to gender, age, race, and education. Graduation from high school prior to accession among applicants who were high school seniors at the time of application accounts for many of the differences noted among these proportions between applicants and accessions. Additionally, slight differences may be seen between applicants and accessions on other demographic variables, though these differences are likely attributable to random fluctuations that occur from year to year.

TABLE 1.4 GENDER OF ENLISTED APPLICANTS WHO RECEIVED A MEDICAL EXAMINATION IN 2003-2007 VS 2008

Gender	2003 – 2007				2008			
	Applicants		Accessions		Applicants		Accessions	
	Count	%	Count	%	Count	%	Count	%
Male	875,185	81.9	602,593	83.8	183,232	82.8	80,640	84.4
Female	192,866	18.1	116,292	16.2	38,075	17.2	14,956	15.6
Total [†]	1,068,061	-	718,886	-	221,309	-	95,596	-

[†] Some individuals with a missing value for gender are included in the total.

TABLE 1.5 AGE OF ENLISTED APPLICANTS WHO RECEIVED A MEDICAL EXAMINATION IN 2003-2007 VS 2008

Age	2003 – 2007				2008			
	Applicants		Accessions		Applicants		Accessions	
	Count	%	Count	%	Count	%	Count	%
17 – 20	767,984	71.9	531,127	73.9	154,175	69.7	65,461	68.5
21 – 25	220,986	20.7	143,977	20.0	49,510	22.4	22,534	23.6
26 – 30	49,485	4.6	28,562	4.0	10,644	4.8	4,606	4.8
> 30	29,606	2.8	15,220	2.1	6,980	3.2	2,995	3.1
Total	1,068,061	-	718,886	-	221,309	-	95,596	-

TABLE 1.6 RACE OF ENLISTED APPLICANTS WHO RECEIVED A MEDICAL EXAMINATION IN 2003-2007 VS 2008

Race	2003 – 2007				2008			
	Applicants		Accessions		Applicants		Accessions	
	Count	%	Count	%	Count	%	Count	%
White	701,037	74.8	479,493	75.2	153,256	75.3	66,735	77.1
Black	143,829	15.3	94,924	14.9	31,809	15.6	12,743	14.7
Other	92,318	9.9	63,198	9.9	18,564	9.1	7,111	8.2
Missing or declined [†]	130,877	-	81,271	-	17,680	-	9,007	-
Total	1,068,061	-	718,886	-	221,309	-	95,596	-

[†] Note: New categories for race were available beginning in 2003. However, greater numbers of applicants chose not to indicate their race.

TABLE 1.7 EDUCATION LEVEL OF ENLISTED APPLICANTS WHO RECEIVED A MEDICAL EXAMINATION IN 2003-2007 vs 2008

Education	2003 – 2007				2008			
	Applicants		Accessions		Applicants		Accessions	
	Count	%	Count	%	Count	%	Count	%
Below HS Senior [†]	47,084	4.4	29,444	4.1	10,997	5.0	4,284	4.5
HS Senior	341,269	32.1	233,473	32.6	60,165	27.3	21,049	22.1
HS Diploma	634,663	59.6	429,863	60.0	141,648	64.2	66,553	69.8
Some College	10,802	1.0	6,934	1.0	2,163	1.0	1,020	1.1
Bachelor's and above	30,884	2.9	16,893	2.4	5,701	2.6	2,374	2.5
Unknown	3,359	-	2,279	-	635	-	316	-
Total	1,068,061	-	718,886	-	221,309	-	95,596	-

[†] 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 1.8 shows the Armed Forces Qualification Test (AFQT) scores by percentile for applicants and accessions, comparing the time period of FY 2003 through FY 2007 to FY 2008. In 2008, the distribution of AFQT scores was consistent with the distribution of AFQT scores in the previous five years. In the previous annual report it was observed that the proportion of accessions in the lowest AFQT score groups was increasing, which may have reflected an increased willingness to consider applicants from the lower aptitude categories. The similarity between current accessions and those from the previous five-year period suggests that this exception has been sustained. Note that AFQT is a nationally normalized test, so the score distribution among all applicants would not necessarily mirror the percentile ranges. Applicants scoring in the 1st through 10th percentiles are barred from the medical examination process.

TABLE 1.8 AFQT SCORE CATEGORIES OF ENLISTED APPLICANTS WHO RECEIVED A MEDICAL EXAMINATION IN 2003-2007 vs 2008

AFQT score	2003 – 2007				2008			
	Applicants		Accessions		Applicants		Accessions	
	Count	%	Count	%	Count	%	Count	%
93 – 99	61,365	5.8	42,799	6.0	12,034	5.5	5,541	5.9
65 – 92	373,109	35.3	261,287	36.6	76,800	35.1	34,891	36.9
50 – 64	263,766	24.9	179,750	25.2	55,832	25.5	24,383	25.8
30 – 49	291,116	27.5	191,438	26.8	63,319	28.9	25,641	27.1
11 – 29 [†]	65,892	6.2	37,964	5.3	10,543	4.8	4,074	4.3
< 11	2,648	0.3	1,387	0.2	359	0.2	130	0.1
Missing	10,165	-	4,261	-	2,422	-	936	-
Total	1,068,061	-	718,886	-	221,309	-	95,596	-

[†] Individuals scoring in the 10 percentile or lower are prohibited from applying. However, some exceptions are apparent.

The medical qualification status of applicants and accessions in FY 2008 as compared to applicants in the previous five years is shown in Table 1.9. The percentage of qualified applicants and accessions in 2008 appears to be slight higher than the overall percentage observed from 2003 to 2007 for that category. In 2008, 82.1% of applicants and 88.2% of accessions were classified as medically qualified for enlisted service compared to 80.1% for applicants and 86.5 for accessions from 2003 to 2007.

Among applicants in 2008, 9.8% received a temporary medical disqualification, whereas only 6.8% of accessions had received the same disqualification. The 2008 within-year accession rate, defined by the ratio of accessions over applicants, was lower for applicants who received permanent medical disqualifications ($4,750 / 18,000 = 26.4\%$) compared to those who received temporary disqualifications ($6,523 / 21,696 = 30.1\%$). Both within-year accession rates for permanent and temporary medical disqualifications were significant lower than for fully qualified candidates ($84,323 / 181,613 = 46.4\%$). Similar results could found for the period of 2003 to 2007. The accession rates were 72.7% (FQ), 44.6 (permanent DQ) and 46.6 (temporary DQ) respectively. Such a difference was larger in 2008 (26.4% vs. 30.1%) was probably due to the longer waiver process time for the permanent disqualified applicants.

TABLE 1.9 ACTIVE DUTY ENLISTED APPLICANTS WHO RECEIVED A MEDICAL EXAMINATION IN 2003-2007 AND 2008: MEDICAL DISQUALIFICATION

Medical status	2003 – 2007				2008			
	Applicants		Accessions		Applicants		Accessions	
	Count	%	Count	%	Count	%	Count	%
Fully qualified	855,448	80.1	621,517	86.5	181,613	82.1	84,323	88.2
Permanent	82,600	7.7	36,841	5.1	18,000	8.1	4,750	5.0
Temporary	130,013	12.2	60,528	8.4	21,696	9.8	6,523	6.8
Total	1,068,061	-	718,886	-	221,309	-	95,596	-

Reserve Applicants at MEPS without Accession Records

Tables 1.10 through 1.16 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 FY 2003 to FY 2007 in aggregate and separately for FY 2008. 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 2003 and 2008 is shown in Table 1.10. Though the number of applicants varies from year to year, there is no simple pattern of changes in the number of applicants in the Army and Marines. Among Navy Reservists, the number of applicants increased from 3,519 in 2003 to 8,364 in 2005 and until 2008 had remained above 7,000 applicants per year. From 2005, there were about 3500 Air Force reserve applicants down from 5,202 in 2003.

TABLE 1.10 RESERVE APPLICANTS AT MEPS WHO RECEIVED A MEDICAL EXAMINATION IN 2003-2008: BY SERVICE

Year of exam	Army	Navy	Marines	Air Force
2003	31,984	3,519	8,901	5,202
2004	23,779	4,801	8,259	4,690
2005	21,115	8,364	7,558	3,471
2006	26,975	8,741	8,414	3,416
2007	25,412	8,595	7,726	3,176
2008	27,000	7,180	6,136	3,559
Total	156,265	41,200	46,994	23,514

Tables 1.11 through 1.15 describe the demographics of Reserve applicants at MEPS. Most Reserve applicants in 2008 were male (74.9%), between the ages of 17 and 20 (63.6%), and white (73.4%, excluding applicants who declined to provide their racial status and those with missing records). The demographic profile of Reserve applicants in 2008 with respect to age and race, was consistent with that observed, in aggregate, over the past five years. However, the percentage of female applicants was slightly increased from 22.7% to 25.1%. It should also be noted that the proportion of Reserve applicants in 2008 who were classified as having an education level “below a high school senior” (14.5%) was higher than in previous years (10.7%). However, when considering the “below high school senior” and “high school senior” categories together, the percentage of applicants who did not yet earn a high school diploma is approximately 34.4% for 2008, which is about the same as the proportion of applicants in 2003-2007 (35.5%).

**TABLE 1.11 RESERVE APPLICANTS AT MEPS WHO RECEIVED A MEDICAL EXAMINATION IN 2003-2007 AND 2008:
GENDER**

Gender	2003 - 2007 applicants		2008 applicants	
	Counts	%	Counts	%
Male	173,196	77.3	32,843	74.9
Female	50,898	22.7	11,030	25.1
Total [†]	224,098	-	43,875	-

[†] Some individuals with a missing value for gender are included in the total.

**TABLE 1.12 RESERVE APPLICANTS AT MEPS WHO RECEIVED A MEDICAL EXAMINATION IN 2003-2007 AND 2008:
AGE**

Age	2003 - 2007 applicants		2008 applicants	
	Counts	%	Counts	%
17 – 20	143,717	64.1	27,916	63.6
21 – 25	36,731	16.4	8,180	18.6
26 – 30	13,798	6.2	2,674	6.1
> 30	29,852	13.3	5,105	11.6
Total	224,098	-	43,875	-

**TABLE 1.13 RESERVE APPLICANTS AT MEPS WHO RECEIVED A MEDICAL EXAMINATION IN 2003-2007 AND 2008:
RACE**

Race [†]	2003 – 2007 applicants		2008 applicants	
	Counts	%	Counts	%
White	136,687	73.4	27,999	73.4
Black	31,991	17.2	7,174	18.8
Other	17,549	9.4	2,986	7.8
Missing or unknown	37,871	-	5,716	-
Total	224,098	-	43,875	-

[†] Note: New categories for race were available beginning in 2003. However, greater numbers of applicants chose not to indicate their race.

TABLE 1.14 RESERVE APPLICANTS AT MEPS WHO RECEIVED A MEDICAL EXAMINATION IN 2003-2007 AND 2008: EDUCATION LEVEL

Education	2003 - 2007 applicants		2008 applicants	
	Counts	%	Counts	%
Below HS Senior [†]	23,984	10.7	6,369	14.5
HS Senior	55,586	24.8	8,713	19.9
HS Diploma	130,035	58.1	26,289	60.0
Some College	3,703	1.7	710	1.6
Bachelor's and above	10,382	4.6	1,700	3.9
Unknown	408	-	94	-
Total	224,098	-	43,875	-

[†] 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 1.15 shows the distribution of AFQT scores among enlisted Reserve applicants at MEPS. The percentage of applicants that scored in the 11th to 49th percentiles increased from 34.6% in 2003-2007 to 38.1% in 2008. This was observed in the previous annual report and may indicate a sustained willingness to consider applicants from the lower aptitude categories.

TABLE 1.15 RESERVE APPLICANTS AT MEPS WHO RECEIVED A MEDICAL EXAMINATION IN 2003-2007 AND 2008: AFQT SCORE

AFQT Score	2003 - 2007 applicants		2008 applicants	
	Count	%	Count	%
93 – 99	13,855	6.5	2,106	5.1
65 – 92	74,798	35.2	13,538	32.8
50 – 64	50,388	23.7	9,947	24.1
31 – 49	58,263	27.4	13,108	31.7
11 – 29 [†]	14,099	6.6	2,421	5.9
< 11	1,359	0.6	204	0.5
Missing	11,336	-	2,551	-
Total	224,098	-	43,875	-

[†] Individuals scoring in the 10th percentile or lower are prohibited from applying. However, some exceptions are apparent.

The medical qualification status of the applicants for enlisted reserve is shown in Table 1.16. The proportions of applicants in the three qualification status categories were nearly the same in 2008 as found in aggregate for the previous five years. In 2008 79.1% of applicants were considered as fully medically qualified. Regarding other forms of medical disqualification, 13.0% (2003-2007) received a temporary disqualification compared to only 11.5% (2008).

TABLE 1.16 RESERVE APPLICANTS AT MEPS WHO RECEIVED A MEDICAL EXAMINATION IN 2003-2007 AND 2008: MEDICAL DISQUALIFICATIONS

Medical status	2003 - 2007 applicants		2008 applicants	
	Count	%	Count	%
Fully qualified	173,884	77.6	34,721	79.1
Permanent	21,134	9.4	4,126	9.4
Temporary	29,080	13.0	5,028	11.5
Total	224,098	-	43,875	-

Army and Air National Guard Applicants at MEPS without Accession Records

In this section, the characteristics of applicants in the enlisted National Guard of the Army and Air Force are described. 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 FY 2003 through FY 2007 (in aggregate) and FY 2008. 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 applicants to the Army and Air National Guard for each year between 2003 and 2008 are shown in Table 1.17. There were considerably more Army National Guard applicants between 2006 and 2008 compared to previous years. The number of Air National Guard applicants decreased temporarily in 2004 and 2005 but increased in 2006 and 2007 to counts previously observed and the trend continued in 2008 with 7,033 applicants.

TABLE 1.17 ARMY AND AIR NATIONAL GUARD APPLICANTS AT MEPS WHO RECEIVED A MEDICAL EXAMINATION IN 2003- 2008: BY SERVICE

Year of Exam	Army National Guard	Air National Guard
2003	42,595	6,105
2004	37,470	5,136
2005	38,067	4,195
2006	55,537	5,571
2007	54,549	5,602
2008	54,703	7,033
Total	282,921	33,642

Tables 1.18 through 1.22 describe the demographics of National Guard applicants for the year 2008 relative to the aggregate demographic characteristics of applicants between 2003 and 2007. In 2008, most applicants were male (78.8%), aged 17-20 (62.9%), and white (81.1%, excluding applicants who declined to provide their racial status and those with missing records), whose highest attained education (at application) was a high school diploma (58.8%). The demographic profile for Army and National Guard applicants in 2008 was similar with that observed, in aggregate, over the previous five years.

TABLE 1.18 ARMY AND AIR NATIONAL GUARD APPLICANTS AT MEPS WHO RECEIVED A MEDICAL EXAMINATION IN 2003-2007 AND 2008: GENDER

Gender	2003 – 2007 applicants		2008 applicants	
	Count	%	Count	%
Male	201,561	79.1	48,661	78.8
Female	53,263	20.9	13,074	21.2
Total [†]	254,827	-	61,736	-

[†] Some individuals with a missing value for gender are included in the total.

TABLE 1.19 ARMY AND AIR NATIONAL GUARD APPLICANTS AT MEPS WHO RECEIVED A MEDICAL EXAMINATION IN 2003-2007 AND 2008: AGE

Age	2003 – 2007 applicants		2008 applicants	
	Count	%	Count	%
17 – 20	162,221	63.7	38,806	62.9
21 – 25	43,246	17.0	12,607	20.4
26 – 30	16,616	6.5	3,890	6.3
> 30	32,744	12.8	6,433	10.4
Total	254,827	-	61,736	-

TABLE 1.20 ARMY AND AIR NATIONAL GUARD APPLICANTS AT MEPS WHO RECEIVED A MEDICAL EXAMINATION IN 2003-2007 AND 2009: RACE

Race [†]	2003 – 2007 applicants		2008 applicants	
	Count	%	Count	%
White	152,679	78.3	42,230	81.1
Black	28,622	14.7	7,644	14.7
Other	13,757	7.1	2,169	4.2
Missing or Declined	59,769	-	9,693	-
Total	254,827	-	61,736	-

[†] New categories for race were available beginning in 2003. However, greater numbers of applicants chose not to indicate their race.

TABLE 1.21 ARMY AND AIR NATIONAL GUARD APPLICANTS AT MEPS WHO RECEIVED A MEDICAL EXAMINATION IN 2003-2007 AND 2008: EDUCATION LEVEL

Education	2003 – 2007 applicants		2008 applicants	
	Count	%	Count	%
Below HS Senior [†]	44,432	17.5	11,629	18.9
HS Senior	54,476	21.5	10,861	17.7
HS Diploma	141,204	55.7	36,116	58.8
Some College	4,095	1.6	834	1.4
Bachelor's and above	9,303	3.7	1,963	3.2
Unknown	1,317	-	333	-
Total	254,827	-	61,736	-

[†] 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 1.22 shows the distribution of AFQT scores among Army and Air National Guard enlistee applicants. The proportion of National Guard applicants in the lowest three AFQT score groups is nearly the same in 2008 (42.6%) and the previous five-year period (44.0%).

TABLE 1.22 ARMY AND AIR NATIONAL GUARD APPLICANTS AT MEPS WHO RECEIVED A MEDICAL EXAMINATION IN 2003-2007 AND 2008: AFQT SCORE

AFQT Score	2003 – 2007 applicants		2008 applicants	
	Count	%	Count	%
93 – 99	11,774	4.9	2,714	4.6
65 – 92	70,290	29.5	17,582	29.6
50 – 64	51,128	21.5	13,748	23.2
30 – 49	78,184	32.8	20,674	34.8
11 – 29 [†]	25,558	10.7	4,458	7.5
< 11	1,254	0.5	183	0.3
Missing	16,639	-	2,377	-
Total	254,827	-	61,736	-

[†] Individuals scoring in the 10th percentile or lower are prohibited from applying, although some exceptions are apparent.

The medical qualification status of National Guard applicants is shown in Table 1.23 for the year 2008 and the years 2003 through 2007. Most applicants in 2008 were classified as medically qualified (74.2%), the percentage was slightly increased from 71.9% for the previous 5 years. In 2008 of those who were disqualified based on a medical condition, the proportion of applicants with a permanent disqualification was 15.8% and temporary disqualification was 10.0%.

TABLE 1.23 ARMY AND AIR NATIONAL GUARD APPLICANTS AT MEPS WHO RECEIVED A MEDICAL EXAMINATION IN 2003-2007 AND 2008: MEDICAL DISQUALIFICATIONS

Medical status	2003 - 2007 applicants		2008 applicants	
	Count	%	Count	%
Fully qualified	183,305	71.9	45,783	74.2
Permanent	27,606	10.8	6,170	10.0
Temporary	43,916	17.2	9,783	15.8
Total	254,827	-	61,736	-

Medical Disqualifications among Applicants for First-Time Active Duty Enlisted Service

Table 1.24 shows the medical disqualifications among applicants for Active Duty enlisted service during the period between FY 2003 and FY 2007, and separately for FY 2008 according to the ICD-9 code assigned to each disqualifying condition. Within this table, the number of disqualifications for a given condition is provided along with the percentage of disqualified individuals receiving this disqualification in addition to the incidence of this disqualification among all MEPS applicants. These conditions are ranked according to the number of disqualifications in 2008. Some disqualified individuals (~ 11% in 2008) have more than one disqualifying medical condition; therefore the number of disqualifications is great than the number of disqualified individuals. As previously mentioned, some codes¹ are summarized at the 4th digit to help maintain a comparable level of coding specificity across the ICD-9 categories².

The most frequent disqualifying conditions, exceeding the weight/body fat limits and nondependent *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 2008, accounting for 21.2% of disqualified individuals, which is nearly the same as applicants disqualified for the same condition (22.9%) in 2003 through 2007. Nondependent abuse of *Cannabis* is the second most common medical disqualification observed, with 9.4% of individuals disqualified for this reason in 2008. This percentage is down from 11.9% in 2003 through 2007. The incidence of disqualifications for obesity/overweight (exceeding weight/body fat limits) is lower in 2008 (3,652 per 100,000 applicants) compared to the previous five years (4,435 per 100,000 applicants). During this same period, the incidence of disqualifications for *Cannabis* abuse per 100,000 MEPS applicants decreased from 2,313 in 2003-2007 to 1,624 in 2008. Disorders of refraction and accommodation (5.8%) and hearing deficiencies (5.5%) were the third and fourth most common disqualifications among Active Duty applicants in 2008. Both conditions are permanently disqualifying. The proportion of disqualifications for asthma, the fifth most common disqualification, is slight lower in 2008 (3.2%) than in previous years (4.0%), which is likely the result of a relaxation of the accession standards for asthma that went into effect in June 2004. Elevated blood pressure reading without the presence of a hypertension diagnosis represented the sixth leading cause for medical disqualification in 2008 (3.0%) and the incidence per 100,000 MEPS applicants with the condition in 2008 more than doubled that of the previous five years. There were two conditions that accounted for a notably less proportion of all medical disqualifications in 2008 compared to the previous five years. Nondependent Cocaine abuse accounted for 0.9% (150 / 100,000) of all medical disqualifications in 2008 compared to 2.0% (391 / 100,000) the previous five years. Other and unspecified disorders of bone and cartilage accounted for 0.9% (150 / 100,000) of all medical disqualifications in 2008 compared to 2.9% (552 / 100,000) the previous five years. Nondependent amphetamine abuse increased from 0.2% of all medical disqualifications and an incidence rate of only 37 / 100,000 MEPS applicants in 2003-2007 to 0.8% of all medical disqualifications in 2008 with an incidence rate of 136 / 100,000 MEPS applicants.

¹ Selected ICD-9 codes are summarized in Table 1.1.

² For a variety of reasons including data extraction and entry, some codes belonging to the groups outlined in Table 1.1 may not have a fourth digit. When summarized, these three-digit codes are a distinct category from related four-digit categories. See page 8 paragraph 3.

TABLE 1.24 MEDICAL DISQUALIFICATIONS CATEGORIES OF FIRST-TIME ACTIVE DUTY ENLISTED APPLICANTS BY ALL ICD-9 CODES: 2003 – 2008

Group (ICD-9)	Condition [†]	2003 - 2007			2008		
		n	% of DQ apps [‡]	n / 100k apps [§]	n	% of DQ apps [‡]	n / 100k apps [§]
278	Obesity and other hyperalimentionation	47,370	22.9	4,435	8,083	21.2	3,652
305.2	Nondependent cannabis abuse	24,699	11.9	2,313	3,593	9.4	1,624
367	Disorders of refraction and accommodation	9,972	4.8	934	2,218	5.8	1,002
389	Hearing deficiency	10,693	5.2	1,001	2,114	5.5	955
493	Asthma	8,290	4.0	776	1,232	3.2	557
796.2	Elevated blood pressure reading without a diagnosis of hypertension	2,617	1.3	245	1,147	3.0	518
783.2	Abnormal loss of weight	7,156	3.5	670	879	2.3	397
300	Anxiety, dissociative, and somatoform disorders	3,753	1.8	351	847	2.2	383
401	Hypertension	4,392	2.1	411	686	1.8	310
692	Contact dermatitis and other eczema	1,939	0.9	182	580	1.5	262
314	Hyperkinetic syndrome of childhood	3,718	1.8	348	540	1.4	244
796	Other abnormal and nonspecific findings	3,572	1.7	334	428	1.1	193
521	Diseases of hard tissues of teeth	1,330	0.6	125	423	1.1	191
752	Congenital anomalies of genital organs	946	0.5	89	383	1.0	173
550	Inguinal hernia	2,125	1.0	199	375	1.0	169
272.9	Unspecified disorder of lipid metabolism	537	0.3	50	348	0.9	157
305.6	Nondependent cocaine abuse	4,174	2.0	391	332	0.9	150
733.9	Other and unspecified disorders of bone and cartilage	5,899	2.9	552	332	0.9	150
791	Nonspecific findings on examination of urine	1,218	0.6	114	325	0.9	147
783.1	Abnormal weight gain	1,202	0.6	113	317	0.8	143
737	Deviation and curvature of spine	1,533	0.7	144	310	0.8	140
305.7	Amphetamine or related acting sympathomimetic abuse	400	0.2	37	300	0.8	136
311	Depression, not elsewhere classified	1,681	0.8	157	299	0.8	135
N/A	Individual with one or more conditions that are not specified above	72,170	34.9	6,757	14,798	38.8	6,687
	Total applicants at MEPS	1,068,061			221,309		
	Total of disqualified applicants	206,802			38,172		

[†] Condition categories (ICD-9 groups) are not mutually exclusive, in 2003-2007.

[‡] Indicates the percentage of medically disqualified MEPS applicants for the specified condition.

[§] Indicates the number of individuals with the specified condition for every 100,000 applicants screened at MEPS.

Table 1.25 shows the medical disqualifications among applicants for Active Duty enlisted service during the period between FY 2003 and FY 2007, and separately for FY 2008 according to Objective Medical Findings (OMF) codes provided by US Military Entrance Processing Command (USMEPCOM). These conditions are ranked according to the number of disqualifications in 2008. 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 observed in the more specific categorization presented in Table 1.24, body build and drug use are the leading categories for disqualification; these are generally considered temporary disqualifying conditions that can be remediated by the applicant without need for an accession medical waiver.

TABLE 1.25 MEDICAL DISQUALIFICATIONS OF FIRST-TIME ACTIVE DUTY ENLISTED APPLICANTS BY ALL LISTED USMEPCOM FAILURE CODES: 2003 – 2008

Group (OMF)	Condition [†]	2003 - 2007			2008		
		n	% of DQ apps [‡]	n / 100k apps [§]	n	% of DQ apps [‡]	n / 100k apps [§]
54	Weight, body build	55,830	26.4	5,227	9,304	23.5	4,204
50	Drugs	28,883	13.6	2,704	4,157	10.5	1,878
40	Psychiatric	15,088	7.1	1,413	3,246	8.2	1,467
38	Skin, lymphatic, allergies	9,544	4.5	894	2,241	5.7	1,013
55	Body fat percentage	4,654	2.2	436	2,091	5.3	945
62	Refraction	9,050	4.3	847	1,958	5.0	885
28	Lungs and chest (includes breast)	11,158	5.3	1,045	1,892	4.8	855
58	Blood pressure	6,927	3.3	649	1,874	4.7	847
34	Lower extremities (except feet)	13,649	6.4	1,278	1,866	4.7	843
33	Upper extremities	10,168	4.8	952	1,562	4.0	706
31	Abdomen and viscera (includes hernia)	5,813	2.7	544	1,443	3.6	652
32	External genitalia (genitourinary)	5,132	2.4	480	1,359	3.4	614
35	Feet	5,492	2.6	514	915	2.3	413
27	Heart (thrust, size, rhythm, sounds)	3,361	1.6	315	906	2.3	409
39	Neurologic	3,545	1.7	332	796	2.0	360
23	Eyes - general (visual acuity and refraction)	4,076	1.9	382	749	1.9	338
36	Spine, other musculoskeletal	4,015	1.9	376	721	1.8	326
52	Other tests	1,342	0.6	126	640	1.6	289
57	Pulse	2,751	1.3	258	578	1.5	261
46	Positive urine test for pregnancy	2,974	1.4	278	564	1.4	255
N/A	Individual with one or more conditions that are not specified above	29,240	13.8	2,738	6,215	15.7	2,808
	Total applicants at MEPS	1,068,061			221,309		
	Total of disqualified applicants	211,803			39,543		

[†] Condition categories (ICD-9 groups) are not mutually exclusive, in 2003-2007.

[‡] Indicates the percentage of medically disqualified MEPS applicants for the specified condition.

[§] Indicates the number of individuals with the specified condition for every 100,000 applicants screened at MEPS.

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 2003 to 2008. Part I examines all waiver consideration records regardless of whether or not there is a corresponding Defense Manpower Data Center (DMDC) accession record. This section thus addresses the spectrum of waiver applications seen by the waiver authorities. Part II examines only those waiver records for which there is a matching accessions record 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 earliest record for each individual for a particular service was considered in the following 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 an accession record

Accession medical waiver considerations for Active Duty enlisted applicants in 2003-2008 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 not necessarily become accessions. Table 1.26 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" that 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. A change in coding prevents the direct comparison of Navy waiver data from 2006 and later to previous years. Aggregate data for the period of 2003-2005 is presented for the Navy while 2006-2007 compared to 2008 are tabulated separately.

TABLE 1.26 WAIVER CONSIDERATIONS FOR ACTIVE DUTY APPLICANTS BY YEAR AND SERVICE

Year	Army		Navy		Marines		Air Force	
	Count	% Approved	Count	% Approved	Count	% Approved	Count	% Approved
2003	15,118	61.1	5,606	54.8	3,489	55.1	3,588	51.2
2004	12,915	59.4	5,405	60.1	3,383	66.4	2,827	57.9
2005	12,444	56.6	5,983	64.8	3,867	69.5	1,424	50.4
2006	12,983	53.2	6,947	65.3	4,128	63.8	2,387	50.9
2007	12,736	67.4	6,034	70.7	4,592	68.8	1,999	52.8
2008	15,269	76.4	6,101	57.3	4,890	64.2	2,340	61.3
Total	81,465	-	36,076	-	24,349	-	14,565	-

There are no apparent trends in the numbers of waiver applications considered by the Army, Navy, and Air Force waiver authorities in 2003 through 2008. Applications considered by the Marines was lowest in 2004 (3,383) but reached counts of 4,592 in 2007 and 4,890 in 2008. With few exceptions, the within-service approval rates for the Marines and Air Force has been consistent through the years examined. Army approval rates were consistently declining from 2003 to 2006, but since 2007 waiver approval rates have continued to increase through 2008 (76.4%). An increase in the waiver approval rate is apparent in the Navy from 2003 to 2007 but the 2008 approval rate dropped to 57.3.

Tables 1.27 through 1.30 show the medical conditions for which waivers were considered and granted ranked by waivers most commonly applied for in between 2003-2008, for each branch of service. Individuals may be considered for multiple conditions; therefore the total number of conditions exceeds the number of individuals evaluated. Waiver considerations from the years 2003 to 2007 are shown in aggregate to facilitate the comparison of waivers in 2008 to previous years. Medical condition categories for the Army and Air Force were created using ICD-9 code(s) assigned to each waiver record. Navy (2005 and prior) and Marine Corps waiver authorities employ a limited subset of the ICD-9 classification scheme, which is defined in DoDI 6130.3. In 2006 and later, code usage by the Navy waiver authority indicates the use of a hybrid system between DoDI 6130.3 and DoDI 6130.4.

Enlisted medical accession waiver considerations and approvals for the Army are shown in Table 1.27. Hearing deficiency was the most common medical disqualification for which waivers were sought in 2008, accounting for 8.6% of individuals seeking a waiver. As in previous years, the second most common accession medical waivers sought were for disorders of refraction and accommodation, representing 7.5% of waiver applicants in 2008. While applications for hearing deficiency and disorders of refraction and accommodation are still the leading two waivers sought by Army applicants, these conditions represent a slightly smaller proportion of total waiver applicants than in the previous five-year period. In 2008, 6.0% of applicants were considered for waivers elevated blood pressure reading without the diagnosis of hypertension, which is greater than the same proportion calculated for 2003-2007 (3.6%). Consistent with previous observations suggesting that disqualifications for asthma at MEPS are decreasing, only 3.8% of waiver applicants sought a waiver for this condition in 2008 as compared to 6.0% in the preceding five year period, in which it was the third most common waiver applied for. This observation may be the result of relaxed accession standards for asthma in June 2004.

TABLE 1.27 TOP CONDITIONS FOR ENLISTED ACCESSION WAIVERS CONSIDERED IN 2003 – 2007 vs. 2008: ARMY

ICD-9	Condition [†]	2003 - 2007				2008			
		Applied		Approved		Applied		Approved	
		Count	% of all apps [‡]	Count	% of apprvd apps [§]	Count	% of all apps [‡]	Count	% of apprvd apps [§]
389	Hearing loss	6,918	10.5	3,379	8.6	1,315	8.6	756	6.5
367	Disorders of refraction and accommodation	5,426	8.2	3,922	9.9	1,141	7.5	984	8.4
796.2	Elevated blood pressure reading without a diagnosis of hypertension	2,386	3.6	2,366	6.0	909	6.0	891	7.6
493	Asthma	3,940	6.0	1,979	5.0	582	3.8	375	3.2
300	Anxiety, dissociative and somatoform disorders	1,953	3.0	691	1.8	566	3.7	355	3.0
272.9	Unspecified disorder of lipid metabolism	324	0.5	312	0.8	546	3.6	529	4.5
272.0	Pure hypercholesterolemia	158	0.2	154	0.4	403	2.6	391	3.4
521	Diseases of hard tissues of teeth	577	0.9	244	0.6	367	2.4	357	3.1
692	Contact dermatitis and other eczema	711	1.1	536	1.4	281	1.8	252	2.2
272.1	Pure hyperglyceridemia	121	0.2	107	0.3	269	1.8	256	2.2
733.9	Other and unspecified disorders of bone and cartilage	3,135	4.7	2,665	6.8	260	1.7	227	1.9
314	Hyperkinetic syndrome of childhood	1,339	2.0	1,005	2.5	234	1.5	174	1.5
719.4	Joint pain	910	1.4	343	0.9	218	1.4	133	1.1
790	Nonspecific findings on examination of blood	160	0.2	133	0.3	213	1.4	195	1.7
717	Internal derangement of knee	1,309	2.0	735	1.9	211	1.4	135	1.2
305	Nondependent drug abuse, unspecified	633	1.0	244	0.6	210	1.4	135	1.2
752	Congenital anomalies of genital organs	397	0.6	277	0.7	196	1.3	190	1.6
272.5	Lipoprotein deficiencies	70	0.1	69	0.2	194	1.3	182	1.6
N/A	Individuals with one or more conditions that are not specified above	31,340	47.3	17,484	44.3	6,447	42.2	4,645	39.8
	Total waivers considered	66,196				15,269			
	Total decisions rendered ^{††}	66,196				15,269			
	Total of approved waivers	39,438				11,661			

[†] Condition categories (ICD-9 groups) are not mutually exclusive.

[‡] Indicates the percentage of waiver applicants for the specified condition category.

[§] Indicates the percentage of approved waiver applicants for the specified condition category.

^{††} Waiver applications for which a decision (granted vs. denied) is not known are not included in this total.

Enlisted medical accession waiver considerations and approvals for the Navy are shown in Tables 1.28A and 1.28B. Conditions in 2002-2005 are coded according to the DoDI 6130.3 whereas a hybrid of the DoDI 6130.3 and DoDI 6130.4 appears to be in use after 2005. Therefore, data for 2002-2005 are presented in aggregate separately, while data for 2006-2007 compared to 2008 are tabulated separately. In 2003-2005, 12.4% of all individuals considered for an accession medical waiver were evaluated for some form of hearing deficiency. The second and third most common waiver conditions were myopia and asthma, with 9.0% and 8.0% of individuals being considered for these disqualifications, respectively. Waivers for the surgical repair of fractures were the fourth most common condition evaluated by the Navy waiver authority, with 6.5% of applicants seeking such a waiver. All remaining reported conditions each represented less than 5% of the total waiver applicant pool. In 2008, the most common waivers were for myopia (9.2%), hearing deficiency (7.9%), asthma (5.9%), and retained orthopedic hardware (2.9%). These findings are consistent with data from 2003-2005. In 2006, less than half of all waiver records for the Navy provided a diagnosis code, resulting in a distribution of waiver categories for 2006-2007 that is different from 2008.

TABLE 1.28A TOP CONDITIONS FOR ENLISTED ACCESSION WAIVERS CONSIDERED IN 2003 – 2005: NAVY

DoDI	Condition [†]	2003 – 2005			
		Applied		Approved	
		Count	% of apps [‡]	Count	% of apprvd apps [§]
389	Hearing deficiency	2,102	12.4	1,078	10.6
367.1	Myopia	1,522	9.0	948	9.3
493	Asthma	1,364	8.0	788	7.7
733.99	Open reduction internal fixation/retained hardware	1,100	6.5	876	8.6
401	Hypertension	608	3.6	492	4.8
314	ADD/ADHD	545	3.2	339	3.3
796	Nonspecific abnormal findings	437	2.6	247	2.4
785	Palpitations/tachycardia	312	1.8	269	2.6
754.6	Pes planus, congenital	308	1.8	240	2.4
995	Certain adverse effect not elsewhere classified	297	1.7	188	1.8
737	Deviation or curvature of spine	270	1.6	109	1.1
795	Abnormal histological and immunological findings, including abnormal Papanicolaou smear	263	1.5	209	2.0
717.83	Old disruption of the anterior cruciate ligament (ACL)	253	1.5	192	1.9
796.2	Elevated blood pressure reading without a diagnosis of hypertension	240	1.4	190	1.9
P11.7	Refractive surgery	236	1.4	198	1.9
367	Disorders of refraction and accommodation	225	1.3	133	1.3
300	Neurotic, mood, somatoform, dissociative, or factitious disorder	222	1.3	95	0.9
367.2	Astigmatism	208	1.2	151	1.5
692	Eczema	198	1.2	133	1.3
995.0	Other anaphylactic shock	190	1.1	122	1.2
N/A	Individuals with one or more conditions that are not specified above	5,244	30.9	2,695	26.4
	Total waivers considered	16,994			
	Total decisions rendered ^{††}	15,623			
	Total of approved waivers	10,197			

[†] Condition categories (DoDI 6130.3 groups) are not mutually exclusive.

[‡] Indicates the percentage of waiver applicants for the specified condition category.

[§] Indicates the percentage of approved waiver applicants for the specified condition category.

^{††} Waiver applications for which a decision (granted vs. denied) is not known are not included in this total.

TABLE 1.28B TOP CONDITIONS FOR ENLISTED ACCESSION WAIVERS CONSIDERED IN 2006-2007 vs. 2008: NAVY

Condition [†]	2006-2007 [†]				2008			
	Applied		Approved		Applied		Approved	
	Count	% of all apps [§]	Count	% of apprvd apps ^{††}	Count	% of all apps [§]	Count	% of apprvd apps ^{††}
Myopia	663	5.1	476	5.4	559	9.2	336	9.6
Hearing threshold level exceeds limit	475	3.7	238	2.7	484	7.9	162	4.6
Asthma	529	4.1	372	4.2	362	5.9	218	6.2
Retain hardware	665	5.1	574	6.5	178	2.9	133	3.8
Eczema	134	1.0	85	1.0	122	2.0	70	2.0
Tachycardia	139	1.1	131	1.5	122	2.0	95	2.7
Contusion of bone or joint (lower extremity)	24	0.2	18	0.2	108	1.8	66	1.9
Deviation or curvature of spine	147	1.1	82	0.9	103	1.7	32	0.9
Contusion of bone or joint (upper extremity)	36	0.3	30	0.3	90	1.5	62	1.8
Anaphylactic shock	90	0.7	76	0.9	87	1.4	67	1.9
Knee Internal derangement	84	0.6	68	0.8	83	1.4	66	1.9
Elevated blood pressure reading without diagnosis of hypertension	319	2.5	285	3.2	74	1.2	67	1.9
Proteinuria current or history	79	0.6	46	0.5	71	1.2	23	0.7
Hypertensive Vascular disease	30	0.2	10	0.1	61	1.0	32	0.9
Pes planus, congenital	82	0.6	61	0.7	61	1.0	37	1.1
Astigmatism	39	0.3	27	0.3	56	0.9	39	1.1
Congenital anomalies of heart and great vessels	180	1.4	126	1.4	52	0.9	35	1.0
Psoriasis current or history	53	0.4	34	0.4	52	0.9	16	0.5
Refractive surgery including Lamellar	234	1.8	213	2.4	51	0.8	39	1.1
Individuals with one or more conditions that are not specified above	2,616	20.2	1,889	21.5	1,726	28.3	1,003	28.7
Total waivers considered	12,981				6,101			
Total decisions rendered ^{‡‡}	12,777				6,101			
Total of approved waivers	8,801				3,494			

[†] Condition categories (Navy waiver codes) are not mutually exclusive.

[§] Indicates the percentage of waiver applicants for the specified condition category.

^{††} Indicates the percentage of approved waiver applicants for the specified condition category.

^{‡‡} Waiver applications for which a decision (granted vs. denied) is not known are not included in this total.

Table 1.29 shows the leading conditions for which waivers were considered by the Marine Corps waiver authority. The most common condition for which accession medical waivers were sought by enlisted Marine applicants in 2008 was for nonspecific abnormal findings (9.8% of waiver applicants), hearing deficiency (9.3%), asthma (7.6%), hypertensive vascular disease (3.9%), and neurotic, mood, somatoform, dissociative, and factitious disorders (5.8%). These findings are consistent with the previous five year period except for a slight reduction in the proportion of asthma waiver applications seen from 2005-2007 (9.2%) when it was the second most common waiver applied for. This observation is likely due to relaxed accession standards for this condition that took place in June 2004.

**TABLE 1.29 TOP CONDITIONS FOR ENLISTED ACCESSION WAIVERS CONSIDERED IN 2003 – 2007 vs. 2008:
MARINES**

DoDI	Condition [†]	2003 - 2007				2008			
		Applied		Approved		Applied		Approved	
		Count	% of all apps [‡]	Count	% of apprvd apps [§]	Count	% of all apps [‡]	Count	% of apprvd apps [§]
796	Nonspecific abnormal findings	1,811	9.3	1,163	9.2	480	9.8	266	8.5
389	Hearing deficiency	1,747	9.0	777	6.1	457	9.3	209	6.7
493	Asthma	1,792	9.2	1,130	8.9	373	7.6	232	7.4
401	Hypertension	1,033	5.3	830	6.6	191	3.9	170	5.4
300	Neurotic, mood, somatoform, dissociative, or factitious disorder	884	4.5	549	4.3	185	3.8	118	3.8
733.99	Open reduction internal fixation/retained hardware	1,598	8.2	1,357	10.7	181	3.7	140	4.5
367.1	Myopia	1,524	7.8	1,041	8.2	180	3.7	139	4.4
995.0	Other anaphylactic shock	518	2.7	391	3.1	177	3.6	150	4.8
314	ADD/ADHD	965	5.0	716	5.7	152	3.1	100	3.2
305	Nondependent drug abuse	283	1.5	188	1.5	151	3.1	95	3.0
313	Disturbance of emotions specific to childhood and adolescence	201	1.0	110	0.9	141	2.9	90	2.9
718.1	Shoulder instability	375	1.9	121	1.0	98	2.0	24	0.8
692	Eczema	299	1.5	173	1.4	94	1.9	52	1.7
791	Proteinuria	256	1.3	140	1.1	88	1.8	45	1.4
P81	Surgical Correction of any knee ligaments	333	1.7	243	1.9	75	1.5	52	1.7
737	Deviation or curvature of spine	267	1.4	123	1.0	74	1.5	28	0.9
746	Congenital anomalies of heart and great vessels	303	1.6	162	1.3	69	1.4	41	1.3
724	Unspecified disorders of back	209	1.1	121	1.0	69	1.4	44	1.4
785	Palpitations/tachycardia	329	1.7	283	2.2	63	1.3	53	1.7
N/A	Individuals with one or more conditions that are not specified above	4,868	25.0	2,998	23.7	1,669	34.1	1,117	35.6
	Total waivers considered	19,459				4,890			
	Total decisions rendered ^{††}	17,402				4,019			
	Total of approved waivers	12,650				3,138			

[†] Condition categories (DoDI 6130.3 groups) are not mutually exclusive.

[‡] Indicates the percentage of waiver applicants for the specified condition category.

[§] Indicates the percentage of approved waiver applicants for the specified condition category.

^{††} Waiver applications for which a decision (granted vs. denied) is not known are not included in this total.

Table 1.30 shows the most common conditions for which waivers were considered by the Air Force waiver authority. In addition to 2008 data, data from the years 2003 to 2007 are shown in aggregate for comparison. Disorders of refraction and accommodation were by far the most common waiver sought by Active Duty Air Force enlistees in 2008 (12.9% of all waiver applicants) and as well as in 2003-2007 (10.3%). Hearing loss (6.0%), asthma (5.9%), and hyperkinetic syndromes of childhood (5.1%), are the second, third, and fourth most common waivers applied for in 2008. These findings appear to be consistent with the previous five year period with slightly order changes. The fifth common waivers is episodic mood disorders (5.0%) in 2008, which is the six one in 2003-2007 and the third common waiver condition is lack of expected physiological development in 2003-2007(4.8%), which decreases to 2.0% in 2008.

TABLE 1.30 TOP CONDITIONS FOR ENLISTED ACCESSION WAIVERS CONSIDERED IN 2003 – 2007 vs. 2008: AIR FORCE

ICD-9	Condition [†]	2003 - 2007				2008			
		Applied		Approved		Applied		Approved	
		Count	% of all apps [‡]	Count	% of apprvd apps [§]	Count	% of all apps [‡]	Count	% of apprvd apps [§]
367	Disorders of refraction and accommodation	1,254	10.3	717	11.1	303	12.9	195	13.6
389	Hearing deficiency	526	4.3	56	0.9	140	6.0	3	0.2
493	Asthma	812	6.6	266	4.1	138	5.9	52	3.6
314	Hyperkinetic syndrome of childhood	585	4.8	405	6.3	119	5.1	97	6.8
296	Episodic mood disorders	368	3.0	198	3.1	117	5.0	89	6.2
785.0	Tachycardia, unspecified	115	0.9	97	1.5	75	3.2	74	5.2
754.2	Congenital musculoskeletal deformities (of spine)	189	1.5	39	0.6	52	2.2	5	0.3
783.4	Lack of expected physiological development	591	4.8	489	7.6	51	2.2	35	2.4
692	Contact dermatitis and other eczema	248	2.0	44	0.7	49	2.1	17	1.2
796.2	Elevated blood pressure reading without diagnosis of hypertension	19	0.2	18	0.3	41	1.8	35	2.4
368	Visual disturbances	223	1.8	151	2.3	41	1.8	31	2.2
718.8	joint derangement	129	1.1	84	1.3	40	1.7	34	2.4
893	Open wound of toe(s)	150	1.2	92	1.4	39	1.7	23	1.6
300	Anxiety, dissociative and somatoform disorders	128	1.0	58	0.9	38	1.6	26	1.8
745	Bulbus cordis anomalies and anomalies of cardiac septal closure	82	0.7	46	0.7	38	1.6	26	1.8
309	Adjustment reaction	135	1.1	81	1.3	31	1.3	26	1.8
530	Diseases of esophagus	94	0.8	49	0.8	31	1.3	29	2.0
P79.3	Open reduction of fracture with internal fixation	252	2.1	184	2.8	30	1.3	27	1.9
752	Congenital anomalies of genital organs	75	0.6	36	0.6	29	1.2	26	1.8
401	Essential hypertension	96	0.8	41	0.6	29	1.2	22	1.5
N/A	Individuals with one or more conditions that are not specified above	3,723	30.5	1,826	28.3	821	35.1	482	33.6
	Total waivers considered	12,225				2,340			
	Total decisions rendered ^{††}	11,512				2,340			
	Total of approved waivers	6,462				1,435			

[†] Condition categories (ICD-9 groups) are not mutually exclusive.

[‡] Indicates the percentage of waiver applicants for the specified condition category.

[§] Indicates the percentage of approved waiver applicants for the specified condition category.

^{††} Waiver applications for which a decision (granted vs. denied) is not known are not included in this total.

Tables 1.31 through 1.34 show the top waiver consideration conditions ranked by waiver approval percentage in aggregate for 2003-2008.

Among Active Duty Army applicants (Table 1.31), nearly all waivers for elevated blood pressure without a diagnosis of hypertension, pure hypercholesterolemia, and unspecified disorder of lipid metabolism were granted in both 2008 and the previous five-year period. The proportion of approved waiver applications for congenital anomalies of genital organs was 96.9% in 2008 compared to 69.8% in 2003-2007. It is worth noting that the frequency of several categories of waiver conditions, namely other mycoses, dermatitis due to substances taken internally, and lack of expected physiological development, were considerably lower in 2008 than in previous years.

None of the most common and highly approved waivers considered by the Navy waiver authority from 2003 to 2005 had approval rates of 90% or above (Table 1.32A). The most commonly approved waivers were for palpitations and tachycardia (86.2%), surgical correction of any knee ligaments (83.6%), and abnormal refractive surgery (83.2%). For 2006-2007 and 2008, the waiver approval rates were generally higher based on the increased proportion of waiver applications that were approved for the top twenty most approved conditions (Table 1.32B). Nearly 90% of waiver applications for elevated blood pressure without a hypertension diagnosis were approved in 2006-2007 and 2008. It is worth noting that in 2008 only 70% of waiver applications for hydrocele were approved compared to 2006-2007 when 92% of the same applications were approved.

Within the Marine Corps, no conditions for which a medical accession waiver was sought in 2008 had approval rates in excess of 90% (Table 1.33). The highest were for hypertensive (89%), anaphylactic shock (84.7%), internal derangement of knee (84.2%), palpitations/tachycardia (84.1%), refractive surgery (83.1%), and congenital pes planus (81.8%)

There were only four conditions among Air Force enlistees with approval rates of 90% or higher in 2008 (Table 1.34). These waiver applications were for tachycardia (98.7%), unspecified disorders of bone and cartilage (94.4%), diseases of esophagus (93.5%), and open reduction of fracture with internal fixation (90.0%).

TABLE 1.31 CONDITION-SPECIFIC CATEGORIES FOR THOSE ACCESSION MEDICAL WAIVERS WITH THE HIGHEST PROPORTION OF APPROVED APPLICATIONS AMONG ACTIVE DUTY ARMY ENLISTEES: 2003 – 2007 vs. 2008

ICD-9	Condition [†]	Total		2003 - 2007		2008	
		Count	% granted	Count	% granted	Count	% granted
796.2	Elevated blood pressure reading without a diagnosis of hypertension	3,295	98.8	2,386	99.2	909	98.0
272.0	Pure hypercholesterolemia	561	97.1	158	97.5	403	97.0
272.9	Unspecified disorder of lipid metabolism	870	96.7	324	96.3	546	96.9
P11.6	Corneal transplant	585	93.3	510	92.7	75	97.3
272.1	Pure hyperglyceridemia	390	93.1	121	88.4	269	95.2
P11.7	Other reconstructive and refractive surgery on cornea	886	90.7	762	90.0	124	95.2
785.0	Symptoms involving cardiovascular system	377	90.7	295	89.8	82	93.9
117	Other mycoses	472	89.2	467	89.3	5	80.0
272	Disorders of lipid metabolism	433	88.9	290	89.0	143	88.8
790	Nonspecific findings on examination of blood	373	87.9	160	83.1	213	91.5
785	Symptoms involving cardiovascular system	760	87.5	656	86.7	104	92.3
693	Dermatitis due to substances taken internally	371	87.3	351	86.9	20	95.0
733.9	Other and unspecified disorders of bone and cartilage	3,395	85.2	3,135	85.0	260	87.3
996	Complications peculiar to certain specified procedures	496	83.9	431	83.1	65	89.2
795 [‡]	Other and nonspecific abnormal cytological, histological, immunological and DNA test findings	445	83.4	397	82.6	48	89.6
783.2	Abnormal loss of weight and underweight	1,946	81.0	1,883	80.7	63	88.9
783.4	Lack of expected physiological development	464	80.2	452	79.9	12	91.7
692	Contact dermatitis and other eczema	992	79.4	711	75.4	281	89.7
752	Congenital anomalies of genital organs	593	78.8	397	69.8	196	96.9
995 [§]	Certain adverse effects not elsewhere classified	661	77.0	475	75.8	186	80.1

[†] Condition categories (ICD-9 groups) are not mutually exclusive.

[‡] Codes in this category typically include nonspecific reaction to the tuberculin skin test (without active TB) and abnormal results from a Papanicolaou smear.

[§] Codes in this category typically include unspecified allergies and anaphylactic shock.

TABLE 1.32A CONDITION-SPECIFIC CATEGORIES FOR THOSE ACCESSION MEDICAL WAIVERS WITH THE HIGHEST PROPORTION OF APPROVED APPLICATIONS AMONG ACTIVE DUTY NAVY ENLISTEES: 2003 – 2005

DoDI	Condition [†]	2003 – 2005	
		Count	% granted
785	Palpitations/tachycardia	312	86.2
P81	Surgical Correction of any knee ligaments	61	83.6
P11.7	Refractive surgery	238	83.2
831	Shoulder dislocation, unreduced	130	83.1
401	Hypertension	608	80.9
733.99	Open reduction internal fixation/retained hardware	1,100	79.6
718.1	Shoulder instability	87	79.3
796.2	Elevated blood pressure reading without a diagnosis of hypertension	240	79.2
795	Abnormal histological and immunological findings, including abnormal Papanicolaou smear	264	79.2
603.9	Hydrocele, current	91	79.1
754.6	Pes planus, congenital	308	77.9
717.83	Old disruption of the anterior cruciate ligament (ACL)	253	75.9
733.9	Retained hardware	92	72.8
367.2	Astigmatism	208	72.6
448.1	Dysplastic Nevi Syndrome	59	71.2
726.1	Shoulder limitation of motion	179	67.6
692	Eczema	198	67.2
706	Diseases of sebaceous glands (including severe acne)	63	66.7
726.3	Elbow limitation of motion	96	65.6
735	Acquired deformities of toes	56	64.3

[†] Condition categories (DoDI 6130.3 groups) are not mutually exclusive.

TABLE 1.32B CONDITION-SPECIFIC CATEGORIES FOR THOSE ACCESSION MEDICAL WAIVERS WITH THE HIGHEST PROPORTION OF APPROVED APPLICATIONS AMONG ACTIVE DUTY NAVY ENLISTEES IN 2006-2007 vs. 2008

Condition [†]	Total		2006-2007 [‡]		2008	
	Count	% granted	Count	% granted	Count	% granted
Elevated blood pressure reading without a diagnosis of hypertension	393	89.6	319	89.3	74	90.5
Refractive surgery including Lamellar	285	88.4	234	91.0	51	76.5
Tachycardia, persistent	261	86.6	139	94.2	122	77.9
Hydrocele, unspecified	70	85.7	50	92.0	20	70.0
Surgical correction of any knee ligaments	125	84.0	101	84.2	24	83.3
Retain hardware	843	83.9	665	86.3	178	74.7
Shoulder dislocation (unreduced)	84	81.0	56	83.9	28	75.0
Anaphylactic shock	177	80.8	90	84.4	87	77.0
Knee Internal derangement	167	80.2	84	81.0	83	79.5
Contact dermatitis	61	78.7	26	88.5	35	71.4
Open wound including traumatic amputation-Scrotum and testes	53	77.4	21	81.0	32	75.0
Attention Deficit Disorder without hyperactivity	284	75.7	234	77.4	50	68.0
Anterior Cruciate ligament injury	105	74.3	79	77.2	26	65.4
Gastric Ulcer	66	74.2	32	78.1	34	70.6
Depression, not elsewhere classified	242	73.6	210	73.8	32	71.9
Contusion of bone or joint (upper extremity)	126	73.0	36	83.3	90	68.9
Major abnormalities or defects of the genitalia	58	72.4	23	78.3	35	68.6
Lower extremity deformities, injury, and disease	89	71.9	58	77.6	31	61.3
Chondromalacia, patella	78	71.8	49	75.5	29	65.5

[†] Condition categories (DoDI 6130.3 groups) are not mutually exclusive.

[‡] Less than half of 2006 records provided a diagnosis code. However, since approval rates are calculated using only records with non-missing codes, the approval rates should not be affected (assuming that missing diagnosis codes are a random phenomenon).

TABLE 1.33 CONDITION-SPECIFIC CATEGORIES FOR THOSE ACCESSION MEDICAL WAIVERS WITH THE HIGHEST PROPORTION OF APPROVED APPLICATIONS AMONG ACTIVE DUTY MARINE CORPS ENLISTEES: 2003 – 2007 vs. 2008

DoDI	Condition [†]	Total		2003 - 2007		2008	
		Count	% Granted	Count	% Granted	Count	% Granted
785	Palpitations/tachycardia	392	85.7	329	86.0	63	84.1
P11.7	Refractive surgery	549	84.3	490	84.5	59	83.1
733.99	Open reduction internal fixation/retained hardware	1,779	84.1	1,598	84.9	181	77.3
905.2	Upper extremity deformities, injury, and disease	142	83.1	130	86.2	12	50.0
401	Hypertension	1,224	81.7	1,033	80.3	191	89.0
995.0	Other anaphylactic shock	695	77.8	518	75.5	177	84.7
733.9	Retained hardware	452	76.3	404	76.7	48	72.9
717.83	Old disruption of the anterior cruciate ligament (ACL)	288	75.3	253	77.1	35	62.9
367.2	Astigmatism	379	74.4	327	74.9	52	71.2
314	ADD/ADHD	1,117	73.1	965	74.2	152	65.8
717.8	Knee Internal derangement	121	72.7	102	70.6	19	84.2
P81	Surgical Correction of any knee ligaments	408	72.3	333	73.0	75	69.3
754.6	Pes planus, congenital	137	72.3	126	71.4	11	81.8
726.3	Elbow limitation of motion	107	70.1	90	71.1	17	64.7
367.1	Myopia	1,704	69.2	1,524	68.3	180	77.2
726.4	Limitation of motion in wrist, fingers, and thumb	147	68.7	110	70.9	37	62.2
535	Gastritis, chronic or severe	103	67.0	88	65.9	15	73.3
734	Pes planus acquired	208	66.8	171	66.7	37	67.6
905.4	Lower extremity deformities, injury, and disease	362	66.3	307	67.4	55	60.0
735	Acquired deformities of toes	109	66.1	81	65.4	28	67.9

[†] Condition categories (DoDI 6130.3 groups) are not mutually exclusive.

TABLE 1.34 CONDITION-SPECIFIC CATEGORIES FOR THOSE ACCESSION MEDICAL WAIVERS WITH THE HIGHEST PROPORTION OF APPROVED APPLICATIONS AMONG ACTIVE DUTY AIR FORCE ENLISTEES: 2003 – 2007 vs. 2008

ICD-9	Condition [†]	Total		2003 - 2007		2008	
		Count	% Granted	Count	% Granted	Count	% Granted
785.0	Tachycardia, unspecified	190	90.0	115	84.3	75	98.7
796.2	Elevated blood pressure reading without diagnosis of hypertension	60	88.3	19	94.7	41	85.4
603	Hydrocele	59	88.1	46	91.3	13	76.9
783.4	Lack of expected normal physiological development in childhood	642	81.6	591	82.7	51	68.6
733.9	Other and unspecified disorders of bone and cartilage	77	80.5	59	76.3	18	94.4
785.2	Undiagnosed cardiac murmurs	94	79.8	73	76.7	21	90.5
P79.3	Open reduction of fracture with internal fixation	282	74.8	252	73.0	30	90.0
314	Hyperkinetic syndrome of childhood	704	71.3	585	69.2	119	81.5
718.3	Recurrent dislocation of joint	205	71.2	177	69.5	28	82.1
734	Flat foot	172	70.3	155	70.3	17	70.6
718.8	Joint derangement	169	69.8	129	65.1	40	85.0
706	Diseases of sebaceous glands	55	69.1	38	65.8	17	76.5
368	Visual disturbances	264	68.9	223	67.7	41	75.6
P81.4	Other repair of joint of lower extremity	114	64.9	103	66.0	11	54.5
732	Osteochondropathies	152	64.5	126	63.5	26	69.2
309	Adjustment reaction	166	64.5	135	60.0	31	83.9
622	Noninflammatory disorders of cervix	212	62.7	197	62.4	15	66.7
530	Diseases of esophagus	125	62.4	94	52.1	31	93.5
893	Open wound of toe(s)	189	60.8	150	61.3	39	59.0

[†] Condition categories (ICD-9 groups) are not mutually exclusive.

Part II: Medical waivers with an accession record

Table 1.35 shows the numbers of applicants for enlisted service who have a MEPS physical examination record and who were granted an accession medical waiver during each year from 2003 to 2008 for all service branches combined. Also shown are the numbers and percentages of these individuals who were subsequently gained onto Active Duty service within one and two years of application at MEPS. The number of approved waivers recorded in 2008 (17,544) was the higher than all previous years. The proportion of individuals granted waivers who subsequently become accessions within one year of their MEPS physical have fluctuated over the period from 2003-2008 but generally remained at 50% and above.

TABLE 1.35 ACTIVE DUTY ACCESSIONS WITHIN ONE AND TWO YEARS OF PHYSICAL EXAMINATION FOR ENLISTED APPLICANTS WHO RECEIVED A WAIVER IN 2003 – 2008[†]: BY YEAR

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	%	Count	%
2003	15,180	7,683	50.6	9,115	60.0
2004	14,150	6,433	45.5	7,736	54.7
2005	12,892	6,207	48.1	7,119	55.2
2006	14,244	7,925	55.6	8,754	61.5
2007	15,582	9,246	59.3	10,173	65.3
2008	17,544	7,252	41.3	7,653	43.6 [‡]

[†] Considers accessions among only those applicants with both a MEPS physical examination record and an approved waiver.

[‡] The accession rate was underestimated due to a lack of sufficient follow up time.

Tables 1.36 through 1.40 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 2003-2007 and separately for 2008.

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 1.36 for all waivers and for those with subsequent accession records. In 2008 the distribution of gender among all waivers and accessions was similar to that observed in 2003-2007. In both time periods, males accounted for a larger percentage of accessions (84.6% in 2008) than they did among approved waiver applicants (82.6% in 2008).

TABLE 1.36 GENDER DISTRIBUTION OF ALL ACTIVE DUTY ENLISTED APPLICANTS WHO RECEIVED AN ACCESSION MEDICAL WAIVER COMPARED TO ONLY THOSE WAIVED PERSONNEL WHO BEGAN ACTIVE DUTY SERVICE: 2003-2007 vs. 2008

Gender	2003 - 2007				2008			
	All waivers		Accessed only		All waivers		Accessed only	
	Count	%	Count	%	Count	%	Count	%
Male	59,555	82.7	39,261	84.4	14,490	82.6	6,574	84.6
Female	12,482	17.3	7,271	15.6	3,052	17.4	1,194	15.4
Total†	72,048	-	46,532	-	17,544	-	7,769	-

† Some individuals with a missing value for gender are included in the total

Table 1.37 shows the age distribution of enlisted applicants who received a waiver in 2003-2007 and in 2008. The majority of waiver recipients in 2008 were between the ages of 17 and 20 years, regardless of whether they accessed or not. The proportion of age distributions among waiver applicants and those who accessed was consistent between 2008 and the previous five year period.

TABLE 1.37 AGE DISTRIBUTION OF ALL ACTIVE DUTY ENLISTED APPLICANTS WHO RECEIVED AN ACCESSION MEDICAL WAIVER COMPARED TO ONLY THOSE WAIVED PERSONNEL WHO BEGAN ACTIVE DUTY SERVICE: 2003-2007 vs. 2008

Age	2003 - 2007				2008			
	All waivers		Accessed only		All waivers		Accessed only	
	Count	%	Count	%	Count	%	Count	%
17 – 20	46,944	65.2	33,096	71.1	10,875	62.0	5,166	66.5
21 – 25	15,164	21.0	9,923	21.3	3,752	21.4	1,745	22.5
26 – 30	4,963	6.9	2,366	5.1	1,381	7.9	487	6.3
> 30	4,977	6.9	1,147	2.5	1,324	7.5	371	4.8
Total	72,048	-	46532	-	17,544	-	7,769	-

Table 1.38 shows the race of enlisted applicants who received a medical waiver in 2008 and in 2003-2007. The demographic profile of applicants and accessions, with respect to race, was similar between 2008 and in previous years.

TABLE 1.38 DISTRIBUTION OF RACE AMONG ALL ACTIVE DUTY ENLISTED APPLICANTS WHO RECEIVED AN ACCESSION MEDICAL WAIVER COMPARED TO ONLY THOSE WAIVED PERSONNEL WHO BEGAN ACTIVE DUTY SERVICE: 2003-2007 VS. 2008

Race [†]	2003 - 2007				2008			
	All waivers		Accessed only		All waivers		Accessed only	
	Count	%	Count	%	Count	%	Count	%
White	48,952	77.1	32,395	77.0	11,848	77.4	5,414	78.5
Black	8,428	13.3	5,565	13.2	2,072	13.5	878	12.7
Other	6,151	9.7	4,119	9.8	1,381	9.0	607	8.8
Missing or declined	8,517	-	4,453	-	2,243	-	870	-
Total	72,048	-	46,532	-	17,544	-	7,769	-

[†] Note: New categories for race were available beginning in 2003. However, greater numbers of applicants chose not to indicate their race.

Table 1.39 shows the education level of applicants granted an accession medical waiver at the time of application in 2008 and in 2003-2007. Applicants who subsequently accessed are shown separately from applicants granted a waiver. The distribution of education level among applicants granted a waiver in 2008 is similar to that in 2003-2007. Note that the great majority of applicants granted a waiver who have not completed high school are high school seniors and will graduate prior to enlistment.

TABLE 1.39 DISTRIBUTION OF EDUCATION (HIGHEST LEVEL ATTAINED AT ACCESSION) AMONG ALL ACTIVE DUTY ENLISTED APPLICANTS WHO RECEIVED AN ACCESSION MEDICAL WAIVER COMPARED TO ONLY THOSE WAIVED PERSONNEL WHO BEGAN ACTIVE DUTY SERVICE: 2003-2007 VS. 2008

Education level	2003 - 2007				2008			
	All waivers		Accessed only		All waivers		Accessed only	
	Count	%	Count	%	Count	%	Count	%
Below HS senior [†]	3,478	4.9	2,106	4.5	1,212	6.9	399	5.1
HS senior	20,746	28.9	14,835	32.0	4,321	24.7	1,838	23.7
HS diploma	42,665	59.5	27,382	59.0	11,009	62.9	5,161	66.5
Some college	977	1.4	481	1.0	233	1.3	94	1.2
Bachelor's and higher	3,824	5.3	1,602	3.5	732	4.2	268	3.5
Missing	358	-	126	-	37	-	9	-
Total	72,048	-	46,532	-	17,544	-	7,769	-

[†] 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 but is not yet a senior.

Table 1.40 shows the distribution of AFQT percentile scores among enlisted applicants who received a waiver in 2003-2007 and in 2008. The distribution of AFQT scores does not appear to be different in 2008 compared to the previous five years. In the previous Annual Report, it was observed that there were higher percentages of waiver applicants who scored in the lowest percentile groups relative to 2003-2007. A similar distribution was seen among waiver applicants that subsequently accessed.

TABLE 1.40 DISTRIBUTION OF AFQT SCORE GROUPS AMONG ALL ACTIVE DUTY ENLISTED APPLICANTS WHO RECEIVED AN ACCESSION MEDICAL WAIVER COMPARED TO ONLY THOSE WAIVED PERSONNEL WHO BEGAN ACTIVE DUTY SERVICE: 2003-2007 VS. 2008

AFQT score	2003 - 2007				2008			
	All waivers		Accessed only		All waivers		Accessed only	
	Count	%	Count	%	Count	%	Count	%
93-99	5,574	7.9	3,398	7.3	1,192	6.9	537	6.9
65-92	26,258	37.4	17,316	37.2	6,039	34.8	2,707	34.9
50-64	17,122	24.4	11,523	24.8	4,217	24.3	1,940	25.0
30-49	17,930	25.5	12,074	26.0	4,988	28.8	2,139	27.6
11-29	3,182	4.5	2,131	4.6	862	5.0	416	5.4
<11	143	0.2	54	0.1	49	0.3	18	0.2
missing	1,839	-	36	-	197	-	12	-
total	72,048	-	46,532	-	17,544	-	7,769	-

Hospitalizations

This section summarizes inpatient hospitalization records of service members admitted to any military 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 2003-2008 and for whom AMSARA has a corresponding accession record. This section accordingly examines hospitalization among Active Duty enlistees early in service.

Part I: Hospitalizations irrespective of an accession record

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 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 1.41 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 for Active Duty enlistees separately for 2008 and the previous five-year period. For the Army, Marines, and Air Force the proportion of all hospitalizations occurring in the first and second years of service does not appear to be substantially different from one another in 2008 or previous years. The proportion of hospitalizations occurring in the first year of service for Active Duty Navy enlistees is lower than the corresponding proportion for the previous five years.

TABLE 1.41 HOSPITALIZATIONS IN 2003 – 2008 BY SERVICE AND YEARS OF SERVICE: ACTIVE DUTY

Service	Years of service	2003-2007		2008	
		Count	% of service total	Count	% of service total
Army	0 – 1	19,612	13.9	3,955	14.4
	1 – 2	19,067	13.5	3,934	14.3
	All	140,745	-	27,539	-
Navy	0 – 1	4,115	7.0	447	4.6
	1 – 2	6,717	11.5	1,213	12.4
	All	58,436	-	9,810	-
Marines	0 – 1	6,931	19.4	1,460	21.1
	1 – 2	5,081	14.3	1,087	15.7
	All	35,640	-	6,929	-
Air Force	0 – 1	5,110	12.7	837	12.7
	1 – 2	3,651	9.1	621	9.4
	All	40,221	-	6,607	-

Table 1.42 shows hospitalizations among the Reserves. In comparing the proportions of hospitalizations that occurred in the first and second years of service, the following generalizations can be made. For the Army, the proportion of hospitalizations occurring in the first year of service for 2008 was nearly double that for hospitalizations occurring in the first year of service for the previous five year period. In 2008 the Air Force experienced a reduction in the proportion of hospitalizations occurring in the first year of service but an increase in the proportion of hospitalization occurring in the in the second.

TABLE 1.42 HOSPITALIZATIONS IN 2003 – 2008 BY SERVICE AND YEARS OF SERVICE: RESERVES

Service	Years of service	2003-2007		2008	
		Count	% of service total	Count	% of service total
Army	0 – 1	1,170	14.1	372	27.6
	1 – 2	459	5.5	93	6.9
	All	8,300	-	1,348	-
Navy	0 – 1	21	2.2	7	2.8
	1 – 2	41	4.3	9	3.6
	All	953	-	249	-
Marines	0 – 1	60	6.2	9	5.9
	1 – 2	62	6.4	10	6.5
	All	972	-	153	-
Air Force	0 – 1	89	10.9	9	6.5
	1 – 2	41	5.0	14	10.1
	All	819	-	139	-

Table 1.43 shows hospitalizations for the National Guard. Most hospitalizations in 2003-2008 occurred among service members with more than two years of service. Hospitalizations among first-year soldiers represented 15.5% (2003-2007) and 21.9% (2008) of all hospitalizations among the Army National Guard. In 2007, the proportion of all hospitalizations in the Air National Guard that occurred among first and second-year soldiers was lower than in the previous five-year period.

TABLE 1.43 HOSPITALIZATIONS IN 2003 – 2008 BY SERVICE AND YEARS OF SERVICE: NATIONAL GUARD

Service	Years of service	2003-2007		2008	
		Count	% of service total	Count	% of service total
Army	0 – 1	1,915	15.5	506	21.9
	1 – 2	776	6.3	194	8.4
	All	12,353	-	2,308	-
Air Force	0 – 1	93	11.8	8	4.3
	1 – 2	30	3.8	4	2.2
	All	789	-	185	-

Hospitalizations for Active Duty enlisted service members by condition and service are shown in Table 1.44 for the years 2003 to 2007 in aggregate and separately for 2008. For each service, complications of pregnancy were the most common conditions for which hospitalizations occurred in 2003-2007 and in 2008, though the percentage of hospitalizations attributable to this condition varied from 12.9% (Marines, 2003-2007) to 35.2% (Navy, 2008) across services and years examined. Among enlisted Army members, complications of pregnancy (15.2%), neurotic and personality disorders (10.1%), injuries (7.6%), fractures (6.9%), and nonspecific symptoms (5.6%) were the most common inpatient hospitalizations occurring in 2008 and are roughly similar to the percentages for the most condition observed in the years from 2003 to 2007. However the percentage of injury decreases from 10.2% in 2003-2007 to 7.6% in 2008, while the percentage of neurotic and personality disorders increases from 8.9% to 10.1%. Among enlisted Navy members in 2008, complications of pregnancy (35.2%) were followed by neurotic and personality disorders (6.4%), and nonspecific symptoms (4.6%). Complications of pregnancy (13.3%), neurotic and personality disorders (11.0%), and fractures (6.4%) were the most common hospitalizations among Marines in 2008. Complications of pregnancy (32.1%), neurotic and personality disorders (6.8%), and nonspecific symptoms (5.0%) were the most common hospitalizations among enlisted Air Force members in 2008.

TABLE 1.44 DISTRIBUTION OF PRIMARY CAUSE CATEGORIES FOR HOSPITALIZATIONS AMONG ACTIVE DUTY ENLISTEES IN 2003 – 2007 VS. 2008: BY SERVICE

Category	Army		Navy		Marines		Air Force	
	2003 - 2007	2008	2003 - 2007	2008	2003 - 2007	2008	2003 - 2007	2008
Complications of pregnancy, childbirth, and the puerperium	15.2	15.2	33.6	35.2	12.9	13.3	31.3	32.1
Injuries	10.2	7.6	3.5	2.9	11.5	5.9	3.2	2.7
Neurotic or personality disorders	8.9	10.1	6.7	6.4	8.5	11.0	7.9	6.8
Fracture	7.8	6.9	4.2	3.3	10.0	6.4	3.2	2.7
Nonspecific symptoms	5.6	5.6	5.3	4.6	3.5	3.6	6.3	5.0
Arthropathies and related disorders	3.7	3.2	2.8	2.2	4.3	3.9	2.3	1.7
Other Psychoses	3.2	4.0	3.3	4.0	3.5	5.0	2.7	2.9
Infections of skin and subcutaneous tissue	3.1	3.3	2.7	2.6	5.7	5.6	2.0	2.5
Dorsopathies	2.4	2.6	2.5	2.5	1.6	1.8	2.2	2.6
Pneumonia and influenza	2.2	2.2	0.8	0.6	4.4	3.6	1.2	1.3
Appendicitis	2.0	2.3	2.9	3.4	3.2	3.8	3.1	3.4
Rheumatism, excluding the back	2.0	2.2	1.1	1.0	1.7	1.8	1.1	1.3
Diseases of the oral cavity	1.8	1.5	1.0	1.1	1.0	1.5	2.7	2.8
Alcohol and drug dependence	1.7	2.4	2.2	2.6	1.8	2.9	1.0	1.0
Osteopathies, chondropathies, and acquired musckulokeletal deformities	1.6	1.6	1.2	0.8	1.8	1.6	1.0	0.9
Other diseases of urinary system	1.6	1.3	1.1	1.1	1.1	1.5	1.7	1.5
Hernia of abdominal cavity	1.5	1.1	0.5	0.5	1.0	1.2	0.5	0.8
Other diseases of digestive system	1.4	1.6	1.9	2.1	1.0	1.2	1.8	2.0
Poisoning and toxic effects	1.2	2.0	0.9	1.1	1.4	1.8	0.6	0.7
Benign neoplasms	1.1	1.0	1.3	1.3	0.4	0.6	1.5	1.6
Other diseases of female genital tract	1.0	0.9	1.2	1.2	0.4	0.4	1.9	2.0
Others	19.7	20.1	18.1	18.2	18.4	20.7	19.7	20.3
Total hospitalizations	140,745	27,539	58,436	9,810	35,640	6,929	40,221	6,607

Table 1.45 shows the hospitalization percentage by component of service in aggregate for 2003-2007 and separately for 2008. The Navy and Marine Corps do not have a National Guard component. In 2008, complications of pregnancy (21.0%) were the most common reason for hospitalizations among Active Duty members followed by neurotic and personality disorders (9.1%), injuries (5.9%), and fractures (5.6%). Among Reservists, the most common causes of inpatient hospitalizations in 2008 were nonspecific symptoms (9.1%), neurotic and personality disorders (7.3%), complications of pregnancy (5.0%), fractures (4.9%), and injuries (4.5%). For the National Guard the most common hospitalizations were nonspecific symptoms (10.0%), neurotic and personality disorders (9.0%), fractures (5.8%), and injuries (5.6%). In general, the contribution of each category to the sum of all hospitalizations within a service was remarkably similar between 2008 and 2003-2007, except for the noticeable reduction in the proportion of injuries in 2008 compared the previous five year period for all components.

TABLE 1.45 DISTRIBUTION OF PRIMARY CAUSE CATEGORIES FOR HOSPITALIZATIONS AMONG ENLISTEES IN 2003 – 2007 VS. 2008: BY COMPONENT

Category	Active Duty		Reserves		National Guard	
	2003 - 2007	2008	2003 - 2007	2008	2003 - 2007	2008
Complications of pregnancy, childbirth, and the puerperium	21.2	21.0	4.9	5.0	2.2	3.1
Neurotic or personality disorders	8.2	9.1	7.2	7.3	7.4	9.0
Injuries	7.9	5.9	10.0	4.5	11.6	5.6
Fracture	6.7	5.6	7.3	4.9	8.6	5.8
Nonspecific symptoms	5.4	5.1	10.0	9.1	9.6	10.0
Arthropathies and related symptoms	3.4	2.9	3.4	2.9	3.0	2.7
Infections of skin and subcutaneous tissue	3.2	3.4	3.3	3.9	3.8	4.7
Other Psychoses	3.2	4.0	3.1	3.9	3.1	3.3
Appendicitis	2.5	2.9	1.9	2.6	1.9	2.4
Dorsopathies	2.3	2.5	3.1	3.3	3.2	3.3
Pneumonia and influenza	2.1	1.9	2.0	2.5	3.0	3.7
Alcohol and drug dependence	1.7	2.3	1.2	2.1	1.3	2.0
Diseases of the oral cavity	1.7	1.6	1.3	2.4	1.1	2.6
Rheumatism, excluding the back	1.6	1.8	2.3	2.8	1.8	1.6
Other diseases of digestive system	1.5	1.7	2.0	2.0	1.9	2.4
Other diseases of urinary system	1.4	1.3	2.6	2.3	3.0	2.2
Osteopathies, chondropathies, and acquired musckulokeletal deformities	1.4	1.3	1.4	2.2	1.4	1.3
Benign neoplasms	1.1	1.1	2.0	2.4	1.2	1.6
Hernia of abdominal cavity	1.1	1.0	2.2	1.9	2.4	2.6
Other diseases of female genital tract	1.1	1.1	1.4	1.4	0.8	0.8
Poisoning and toxic effects	1.1	1.6	0.7	1.0	0.7	1.3
Other	19.1	19.8	25.3	27.7	25.7	26.1
Total hospitalizations	275,042	50,885	11,044	1,889	13,142	2,493

Part II: Hospitalizations with an accession record, Active Duty enlistees only

Hospitalization records of Active Duty enlistees who began service during 2003-2008 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 1.46 shows hospitalizations and persons hospitalized among soldiers accessed during each year from 2003 to 2008. 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 Active Duty service. The former provides a basis for appropriate comparison for those gained in 2008, because hospitalization data were available only through 2008 in 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 (“People”). The proportion of people hospitalized (% of People) within the first year of service is relatively stable from 2003-2008.

TABLE 1.46 ACTIVE DUTY HOSPITALIZATIONS IN 2003 – 2008: BY YEAR

Year	Total accessed	Within same gain year			Within one year of service		
		Admissions	People	% of people	Admissions	People	% of people
2003	174,969	4,542	4,114	2.4	7,858	6,804	3.9
2004	152,827	3,435	3,112	2.0	5,904	5,215	3.4
2005	129,718	2,739	2,474	1.9	5,470	4,724	3.6
2006	169,025	4,053	3,598	2.1	7,824	6,716	4.0
2007	166,842	3,838	3,467	2.1	7,369	6,362	3.8
2008	145,394	3,014	2,718	1.9	3,014	2,718	1.9
Total	938,775	21,621	19,483	-	37,439	32,539	-

Table 1.47 shows that the risk of hospital admission within one year of accession for enlisted personnel varies 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. Marine Corps enlistees had the second highest risk of hospitalization, which was also significantly greater than Navy and Air Force enlistees. Navy enlistees had the lowest risk of hospitalization admission.

TABLE 1.47 HOSPITAL ADMISSIONS WITHIN ONE YEAR OF ACCESSION FOR ACTIVE DUTY ENLISTED PERSONNEL ACCESSED IN 2003 – 2008: BY SERVICE

Service	Total accessed	Admissions	Individuals hospitalized			
			Count	%	Relative risk	95% CI
Army	349,218	20,467	17,481	5.01	1.00	-
Navy	219,923	4,235	3,766	1.71	0.34	(0.33,0.35)
Marines	195,151	8,184	7,198	3.69	0.74	(0.72,0.76)
Air Force	174,483	4,553	4,094	2.35	0.47	(0.45,0.48)

Tables 1.48 through 1.52 summarize the demographic characteristics of enlistees hospitalized within one year of accession. The risk of hospitalization was significantly higher for women relative to men (Table 1.48). Table 1.49 shows that the risk of hospitalization increases significantly with advancing age relative to the youngest age group (a significant trend) and that the risk of each age group is significantly higher than the next lower age group. The highest relative risk was observed for the oldest age group (over 30). Whites had a significantly higher risk of hospitalization within a year of accession relative to blacks and individuals of any other race (Table 1.50). Those who declined to report race had the highest hospitalization risk. Table 1.51 shows the hospitalization risk by the level of education at accession in 2003-2008. The risk of hospitalization in the first year of accession was lower for individuals in the "Below HS graduate" category compared to those who graduated high school. Enlistees who had completed some college at the time of accession had a higher risk of hospital admission, relative to high school graduates. No significant difference in the risk of hospitalization in the first year of service was found for those enlistees with a Bachelor's degree or higher relative to high school graduates.

TABLE 1.48 HOSPITAL ADMISSIONS WITHIN ONE YEAR OF ACCESSION FOR ACTIVE DUTY ENLISTED PERSONNEL ACCESSED IN 2003 – 2008: BY GENDER

Gender	Total accessions	Admissions	Individuals hospitalized			
			Count	%	Relative risk	95% CI
Male	784,539.0	29,316.0	25,526.0	3.25	1.00	-
Female	154,230.0	8,122.0	7,012.0	4.55	1.40	(1.36,1.43)

TABLE 1.49 HOSPITAL ADMISSIONS WITHIN ONE YEAR OF ACCESSION FOR ACTIVE DUTY ENLISTED PERSONNEL ACCESSED IN 2003 – 2008: BY AGE

Age group	Total accessions	Admissions	Individuals hospitalized			
			Count	%	Relative risk	95% CI
17 – 20	644,295	24,424	21,348	3.31	1.00	-
21 – 25	229,513	9,605	8,310	3.62	1.09	(1.07,1.12)
26 – 30	44,181	2,251	1,924	4.35	1.31	(1.26,1.38)
> 30	15,739	1,069	882	5.60	1.69	(1.58,1.81)

TABLE 1.50 HOSPITAL ADMISSIONS WITHIN ONE YEAR OF ACCESSION FOR ACTIVE DUTY ENLISTED PERSONNEL ACCESSED IN 2003 – 2008: BY RACE

Race [†]	Total accessions	Admissions	Individuals hospitalized			
			Count	%	Relative risk	95% CI
White	636,245	25,302	22,073	3.47	1.00	-
Black	127,582	4,587	3,991	3.13	0.90	(0.87,0.93)
Other	83,748	2,601	2,260	2.70	0.78	(0.75,0.81)
Declined	91,200	4,949	4,215	4.62	1.33	(1.29,1.38)

[†] Note: New categories for race were available beginning in 2003. However, greater numbers of applicants chose not to indicate their race.

TABLE 1.51 HOSPITAL ADMISSIONS WITHIN ONE YEAR OF ACCESSION FOR ACTIVE DUTY ENLISTED PERSONNEL ACCESSED IN 2003 – 2008: BY EDUCATION LEVEL

Education level	Total accessions	Admissions	Individuals hospitalized			
			Count	%	Relative risk	95% CI
Below HS graduate [†]	5,640	142	130	2.30	0.67	(0.56,0.79)
HS diploma	817,703	32,580	28,324	3.46	1.00	
Some college	25,879	1,445	1,215	4.69	1.36	(1.28,1.43)
Bachelor's or higher	20,654	824	727	3.52	1.02	(0.95,1.09)
Missing	68,899	2,448	2,143	3.11	0.9	(0.86,0.94)

[†] 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 but is not yet a senior.

Tables 1.52 shows hospital admissions within one year of accession for Active Duty enlisted personnel by AFQT score. As shown in the table, the risk of hospitalization is lowest among individuals scoring in the highest percentile group (93-99). Relative to the highest percentile group, the risk of hospitalization of each of the other percentile score groups is significantly higher, with the greatest relative risk for hospitalization seen in the lowest percentile group (11-29). The proportion of enlistees hospitalized tended to increase with decreasing AFQT percentile score group.

TABLE 1.52 HOSPITAL ADMISSIONS WITHIN ONE YEAR OF ACCESSION FOR ACTIVE DUTY ENLISTED PERSONNEL ACCESSED IN 2003 – 2008: BY AFQT SCORE

AFQT score	Total accessions	Admissions	Individuals hospitalized			
			Count	%	Relative risk	95% CI
93 – 99	54,253	1,809	1,584	2.92	1.00	-
65 – 92	337,629	12,989	11,338	3.36	1.15	(1.09,1.21)
50 – 64	236,572	9,724	8,484	3.59	1.23	(1.17,1.29)
30 – 49	252,642	10,507	9,081	3.59	1.23	(1.17,1.30)
11 – 29 [†]	47,784	2,256	1,916	4.01	1.37	(1.29,1.47)
Missing	8,258	86	73	0.88	-	-

[†] Individuals scoring in the 10th percentile or lower are prohibited from applying, although some exceptions have been noted.

Tables 1.53 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. Pneumonia and influenza are the second leading cause for hospitalizations in the first year of service followed by infections of the skin and subcutaneous tissue, fractures, other psychoses, nonspecific symptoms, and injuries. When considering all hospitalizations within the first two years of service, hospitalizations for neurotic and personality disorders are by far the most common. Complications of pregnancy are the second leading cause of hospitalizations within the first two years of service.

When comparing the numbers of hospitalizations within each medical category between the different follow-up periods (i.e. one and two years following accession), it is clear that several conditions resulting in hospital admissions tend to occur most frequently in the first year of Active Duty enlisted service. In particular, hospitalizations for pneumonia and influenza, acute respiratory infections, and other communicable diseases all occur with much higher frequency in the first year of service. Hospitalizations for neurotic and personality disorders also appear more common in the first year of service, though the difference is less dramatic than for communicable diseases. The reduced number of hospitalizations for neurotic and personality disorders in the second year of service may reflect the fact that most enlistees experience 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 service. The lower number of hospitalizations for pneumonia and influenza may be related to a reduction in group-living situations after basic training. Contrary to the pattern of occurrence shared by hospitalizations for neurotic and personality disorders, pneumonia and influenza, admissions for complications of pregnancy increased dramatically in the second year of service, not surprising given that pregnancy is a temporary medical disqualification at MEPS and a cause for discharge during Basic Combat Training (BCT). The risk of fractures appears similar in both the first and second years of service given that the number of hospitalizations for fractures is similar in both years of follow-up. However, the risk for injuries appears to increase after the first year of service given that the number of hospitalizations for injuries is more than doubled in the second year of follow-up.

TABLE 1.53 HOSPITAL ADMISSIONS AND PERSONS HOSPITALIZED WITHIN ONE AND TWO YEARS OF SERVICE FOR ACTIVE DUTY ENLISTED PERSONNEL ACCESSED IN 2003-2008: BY MEDICAL CATEGORY

Medical category	Within one year of accession		Within two years of accession	
	Hospital admissions	Persons hospitalized	Hospital admissions	Persons hospitalized
Neurotic or personality disorders	7,426	6,413	10,703	8,692
Pneumonia and influenza	3,469	3,281	3,654	3,423
Infections of skin and subcutaneous tissue	2,880	2,705	3,788	3,456
Fracture	2,207	1,882	4,725	3,484
Other Psychoses	2,038	1,611	3,353	2,399
Nonspecific symptoms	1,921	1,630	2,816	2,283
Injuries	1,679	1,393	4,780	3,361
Acute respiratory infections	931	882	1,048	983
Appendicitis	874	849	1,569	1,485
Alcohol and drug dependence	843	683	1,640	1,286
Complications of pregnancy, childbirth, and the puerperium	805	670	8,889	7,661
Rheumatism, excluding the back	803	737	1,172	1,028
Poisoning and toxic effects	799	689	1,354	1,099
Hernia of abdominal cavity	611	579	857	790
Osteopathies, chondropathies, and acquired musckulokeletal deformities	560	498	890	691
Other diseases of the upper respiratory tract	540	490	811	720
Other diseases due to viruses and chlamydiae	531	490	618	570
Diseases of the oral cavity	508	471	774	695
Arthropathies and related symptoms	475	398	1,195	987
Other diseases of urinary system	388	326	733	569
Other diseases of digestive system	374	313	663	505
Others	4,769	3,947	7,753	6,017
Total	37,439	32,539	67,184	54,581

Attrition

Attrition is one of many outcomes of key interest to AMSARA. This section provides a basic description of all-cause attrition among first-time Active Duty soldiers accessed into the Army, Navy, Marines, and Air Force in 2003 through 2008. Figures 1.1 through 1.7 display the cumulative likelihood of attrition within this group at 90, 180, 365, and 730 days following accession onto Active Duty service with respect to service, year of accession, and various demographic factors. Age, education level, and AFQT score at accession (not application) were considered in this analysis. Attrition at each time point was derived from life table calculations, which adjusted the likelihood of attrition to account for censored observations. Censoring may result from a lack of full follow-up or from certain DMDC transactions that result in a loss date but that should not be considered as true losses. These pseudo losses include 1) admission to officer commissioning programs; 2) warrant officer programs; 3) entry into service academies; 4) expiration of term of service; 5) retirement; and 6) immediate reenlistment. Loss records generated for these six events were not counted among the attritions reported in the following figures. Totals may vary from figure to figure due to missing variable values.

Figure 1.1 shows the proportion of Active Duty accessions gained in 2003-2008 who were lost to attrition at specified times of follow-up after their date of accession. The Navy had the highest proportion of attrition during the first 90 days of service. During the first 180 days of service the proportion of attrites appears to be consistent across all services (~10%). During the first and second full years of service, the proportion of accessions that subsequently attrited was consistently higher at all points of follow-up for the Army compared to all other services. After two years of service, the proportion of attritions was highest for the Army (19.5%) followed by the Navy (18.0%), Air Force (16.7%), and the Marines (15.3%).

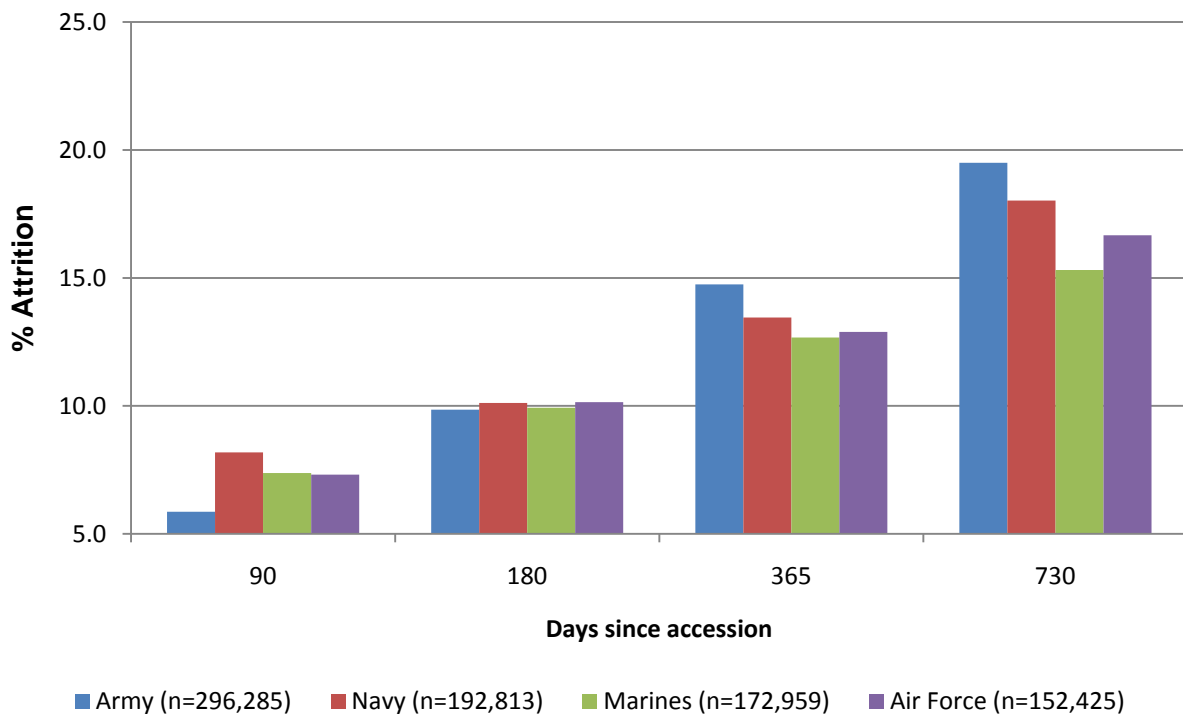


FIGURE 1.1 Attrition among first-time, Active Duty soldiers in FY 2003 – FY 2008 at 90, 180, 365, and 730 days following accession. Separate plots are shown for the Army, Navy, Marines and Air Force

Figure 1.2 describes the attrition profile for Active Duty enlistees who accessed into the Army, Navy, Marine Corps, and Air Force by accession year. Overall, the attrition rate appears roughly decreasing by year, except for 2004. However the attrition rate was underestimated in 2008, which was a result of incomplete follow-up.

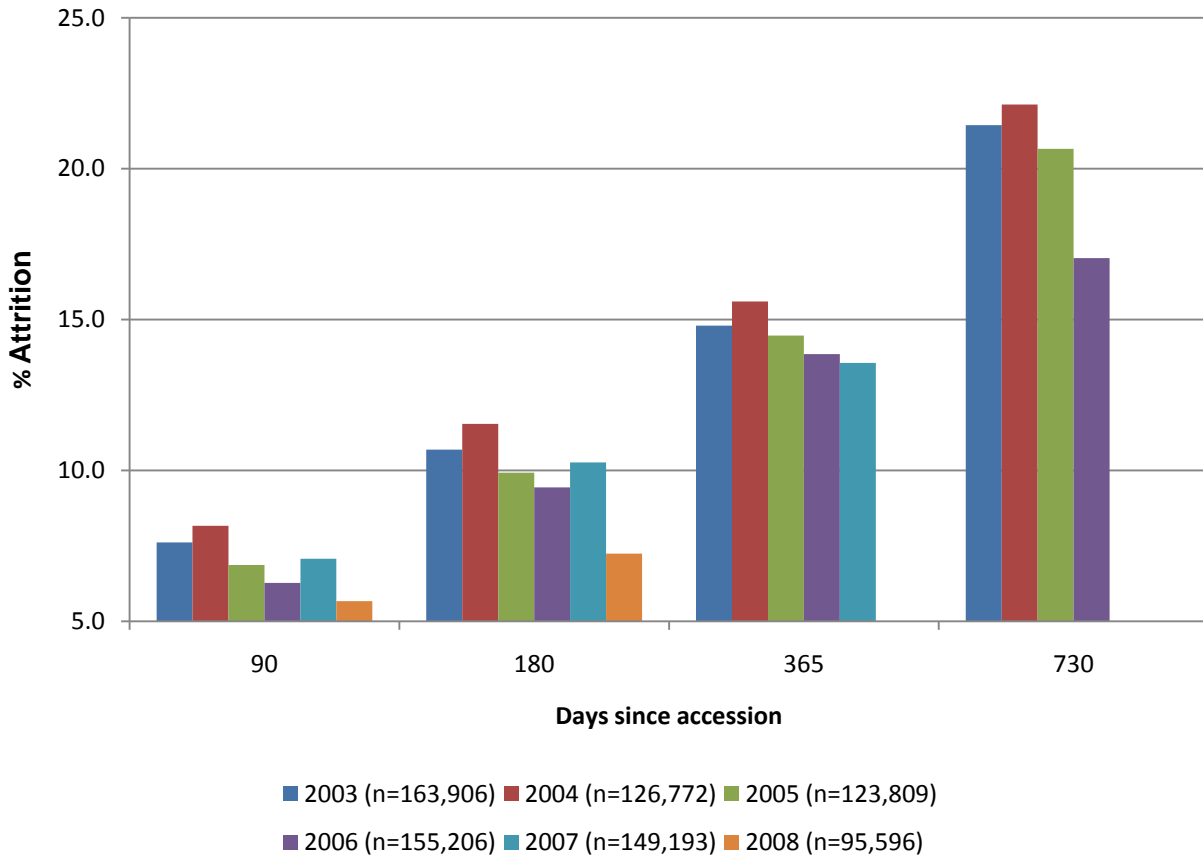


FIGURE 1.2 Attrition among first-time, Active Duty soldiers in FY 2003 – FY 2008 at 90, 180, 365, and 730 days following accession. Separate plots are shown for each year of accession. Attrition for soldiers gaining in 2006 was calculated at 90 and 180 days, only.

Figures 1.3 through 1.7 describe the attrition profile for Active Duty enlistees who accessed into the Army, Navy, Marine Corps, and Air Force by gender, race, age at accession, education at accession, and AFQT score at accession. As seen in Figure 1.3, the proportion of accessions lost is consistently higher at all points of follow-up for females relative to males, even at the earliest point of assessment (90 days) where 10.5% of women were already lost to attrition as compared to only 6.3% of men. At the end of two years of service, cumulative attrition was 25.5% for females and 16.2% for males.

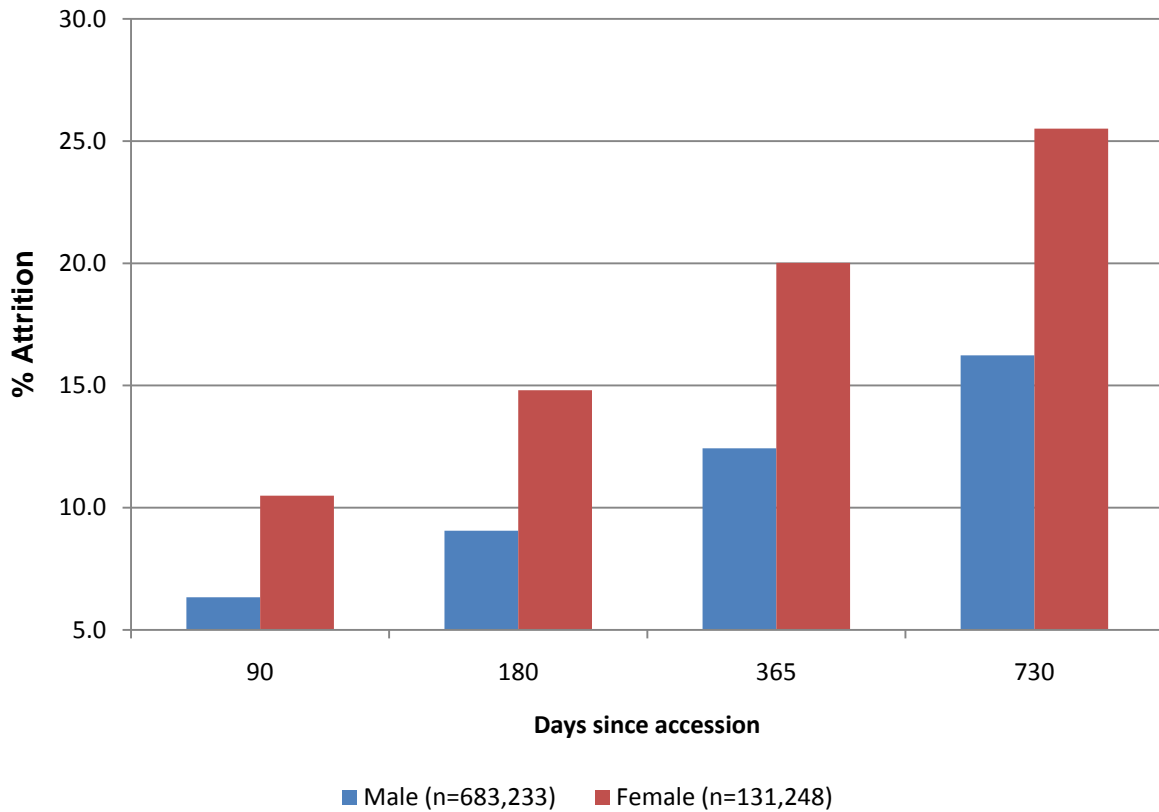


FIGURE 1.3 Attrition among first-time, Active Duty soldiers in FY 2003 – FY 2008 at 90, 180, 365, and 730 days following accession.

Attrition was not substantially different across the categories of race (when it was specified), although individuals who identified themselves as members of any race other than black or white tended to have lower attrition at all points of follow-up (Figure 1.4). Whites consistently had the highest proportion of losses among accessions at 90 days (7.3%) and through 1 year (13.9%). At the end of the second year, the proportion of black soldiers who attrited (18.0%) was marginally higher than for whites (17.8%).

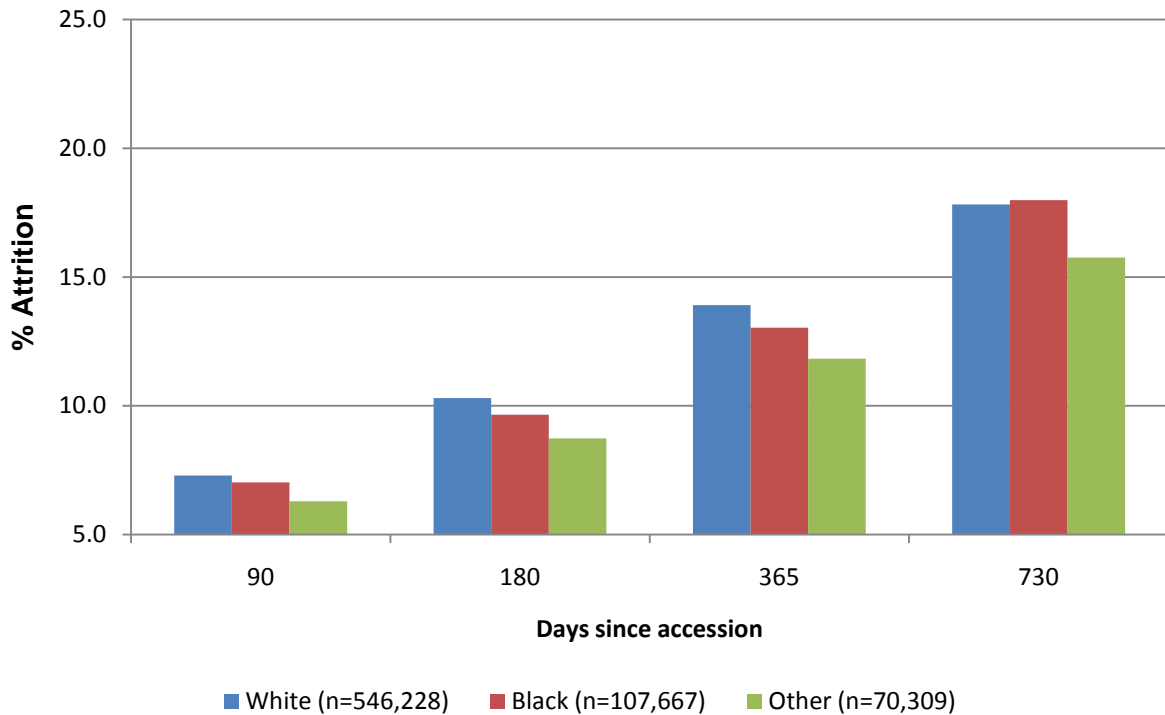


FIGURE 1.4 Attrition among first-time, Active Duty soldiers in FY 2003 – FY 2008 at 90, 180, 365, and 730 days following accession. Separate plots are shown for enlistees who identified themselves as white, black (or as a member of any other race (black). However, greater numbers of applicants chose not to indicate their race.

Cumulative attrition was highest for the 26-30 age group at each time point over the two-year period (Figure 1.5). There appears to be an increasing proportion of attrites with increasing age except for the >30 age group who have a noticeably less proportion of attrites at each point of follow-up.

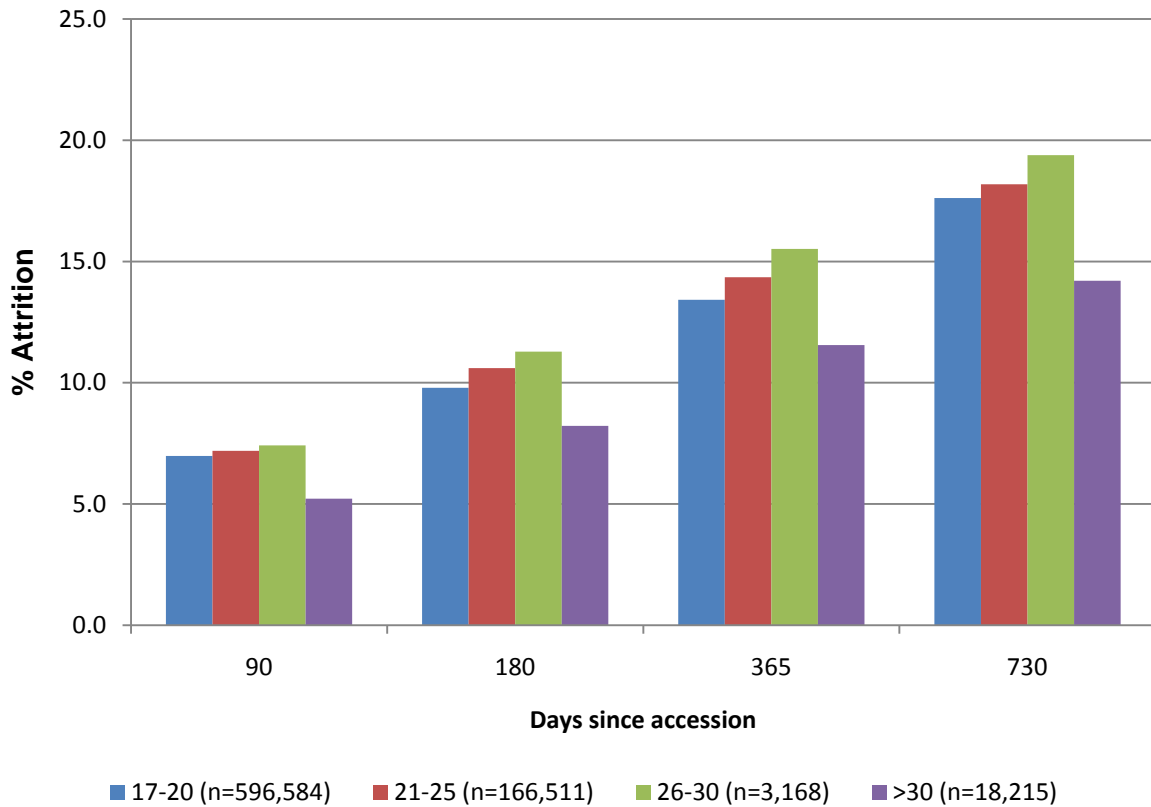


FIGURE 1.5 Attrition among first-time, Active Duty soldiers in FY 2003 – FY 2008 at 90, 180, 365, and 730 days following accession. Separate plots are shown for 17-20 year olds, 21-25 year olds, 26-30 year olds and accessions over 30 years of age

When attrition was examined by education level (Figure 1.6) it was found that enlistees with less than a high school education and those with a bachelor's degree or more consistently had the highest levels of attrition. Attrition at all points of follow-up was the lowest for those who had some college.

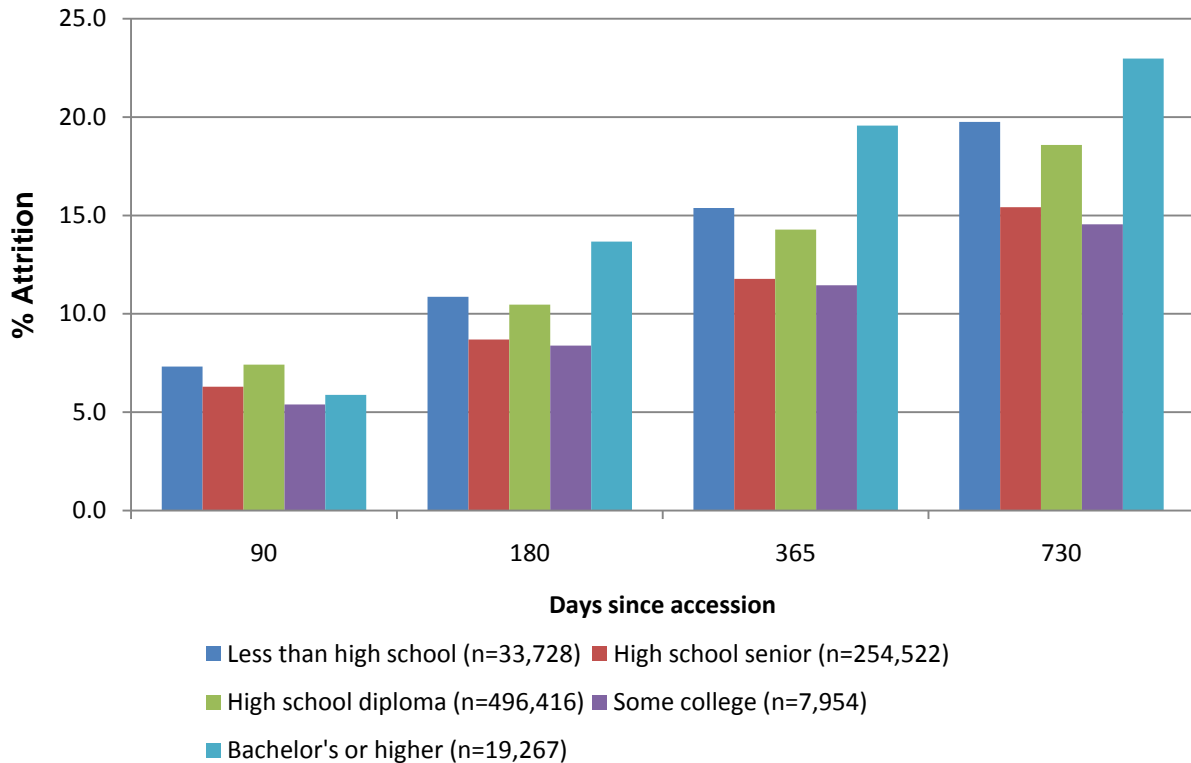


FIGURE 1.6 Attrition among first-time, Active Duty soldiers in FY 2003 – FY 2008 at 90, 180, 365, and 730 days following accession. Separate plots are shown for specified categories of education level attained at time of accession. Those with less than a high school education encompass the following 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 but is not yet a senior.

Figure 1.7 presents data on the attrition profile of soldiers by AFQT percentile score group. The proportion lost at all points of follow-up was lowest for the highest percentile score group (93-99) and generally increased for progressively lower scoring categories. This was true for each point of follow-up. The increase in the proportion of attritions was highest among the lowest scoring group and lower for the higher scoring groups.

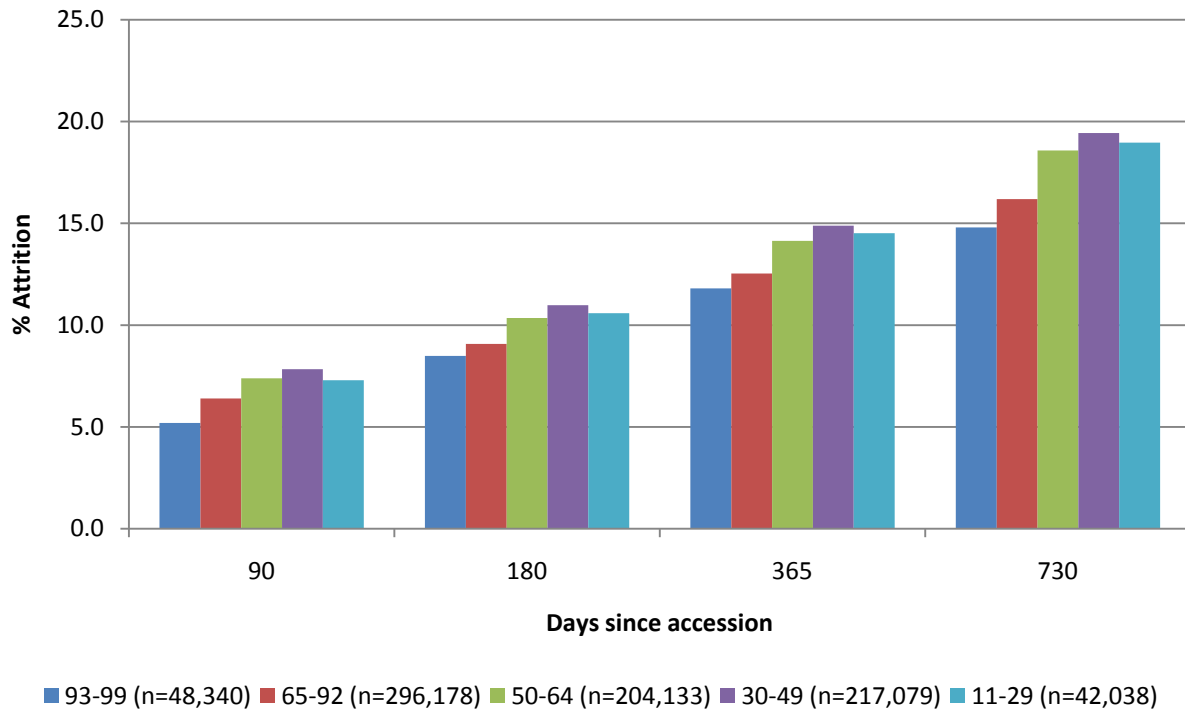


FIGURE 1.7 Attrition among first-time, Active Duty soldiers in FY 2003 – FY 2008 at 90, 180, 365, and 730 days following accession. Separate plots are shown for specified groups based on AFQT score at time of accession in the 93-99, 65-92, 50-64, 31-49, and 11-29 percentile score groups. Note that individuals scoring below the 10th percentile are barred from application.

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 (Page 87, Table 2.1).

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 Nation 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 soldiers in Initial Entry Training (IET) for the Reserves and 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 of discharge are shown for the period between 2003 and 2008 in Table 1.55. Numbers for each service and component often differ considerably from year to year. For example, the average number of records received for Active Duty Army soldiers in 2006 and 2007 is nearly half the average number received in 2003-2005. Fluctuations in the numbers of reported EPTS discharges are also apparent for Active Duty Navy and Air Force. For example, Air Force reported EPTS discharges ranged from 445 in 2005 to 1,117 in 2007. Marine Corps EPTS discharge counts remain relatively constant from 2003-2008.

TABLE 1.55 EPTS DISCHARGES IN 2003 – 2008 BY SERVICE, COMPONENT, AND YEAR

Service	Component	2003	2004	2005	2006	2007	2008	Total
Army	Active Duty	3,415	3,130	2,728	1,480	1,498	1,959	14,210
	National Guard	541	670	698	403	501	711	3,524
	Reserves	307	457	389	269	317	354	2,093
Navy*	Active Duty	1,486	912	1,264	1,267	1,721	1,697	8,347
	Reserves	5	1	13	47	168	186	420
Marines*	Active Duty	1,273	1,449	1,380	1,494	1,198	1,168	7,962
	Reserves	169	220	144	209	158	119	1,019
Air Force	Active Duty	644	815	445	897	1,117	1,043	4,961
	National Guard	4	3	3	4	5	6	25
	Reserves	43	65	42	66	70	76	362
Total		7,887	7,722	7,106	6,136	6,753	7,319	42,923

* Missing components records are not included.

Table 1.56 shows EPTS discharges between 2003 and 2008 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 21.8%, 23.9%, and 41.9% of EPTS discharges, respectively. Such EPTS charges accounted for less than 1% of all EPTS discharges from the Air Force. For this service, asthma was the leading cause of EPTS discharge (28.6%). Asthma was also a large contributor of EPTS discharges across the other three services, as were orthopedic conditions. As a group, orthopedic conditions, including knee, back, feet, general, and other, account for 40.9% of discharges from the Army. Orthopedic conditions were also leading causes of EPTS discharges in the Navy (38.5%), Marines (25.7%), and Air Force (45.2%). The difference in category frequencies may be due in part to differences in how each service categorizes and reports EPTS discharges, particularly discharges for psychiatric conditions (Army and Air Force). Accordingly, differences across services may reflect procedural differences more than true EPTS rates, and any comparisons across services should be made cautiously.

TABLE 1.56 EPTS DISCHARGES IN 2003 – 2008 BY CATEGORY

Condition	Army		Navy		Marines		Air Force	
	Count	%	Count	%	Count	%	Count	%
Psychiatric - other	4,328	21.8	2,100	23.9	3,775	41.9	45	0.8
Asthma	2,920	14.7	950	10.8	1,147	12.7	1,530	28.6
Ortho - other	2,490	12.6	1,052	12.0	674	7.5	508	9.5
Ortho - back	1,812	9.1	685	7.8	391	4.3	395	7.4
Ortho - knee	1,810	9.1	790	9.0	465	5.2	625	11.7
Other - general	1,114	5.6	507	5.8	670	7.4	303	5.7
Ortho - feet	895	4.5	342	3.9	118	1.3	582	10.9
Genitourinary system	877	4.4	423	4.8	317	3.5	157	2.9
Neurology - other	669	3.4	317	3.6	404	4.5	475	8.9
Abdomen and viscera	507	2.6	243	2.8	216	2.4	157	2.9
Cardiovascular - other	428	2.2	123	1.4	100	1.1	135	2.5
Seizure disorder	417	2.1	122	1.4	95	1.1	65	1.2
Eyes - other	383	1.9	459	5.2	150	1.7	111	2.1
Chest & lung - other	312	1.6	194	2.2	131	1.5	75	1.4
Cardiovascular - hypertension	295	1.5	64	0.7	54	0.6	18	0.3
Skin & lymphatics	217	1.1	157	1.8	104	1.2	123	2.3
Ears - hearing	115	0.6	117	1.3	91	1.0	12	0.2
Schizophrenia	44	0.2	8	0.1	17	0.2	0	-
Ears - other	41	0.2	74	0.8	47	0.5	3	0.1
Eyes - refraction	40	0.2	33	0.4	17	0.2	18	0.3
Other/Missing	113	0.6	22	0.3	21	0.2	11	0.2
Total	19,827	-	8,782	-	9,004	-	5,348	-

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 DoDI 6130.3 and DoDI 6130.4. Prior to 2006, EPTS discharge conditions were coded according to the DoDI 6130.3. However, beginning in 2006 the discharge conditions were coded using DoDI 6130.4. Codes corresponding to psychiatric disorders and orthopedic conditions underwent a substantial revision. Given the breadth and scope of disease reclassification, it is difficult if not impossible to directly compare EPTS data from 2006-2008 to that from previous years. Therefore, these data are presented in separate tables and are not intended for direct comparison. Tables 1.57 through 1.60 summarize the primary medical conditions leading to EPTS discharge by service for 2003-2008. Part A of each table presents data from 2003-2005 (DoDI 6130.3) while Part B summarizes data for 2006 -2008 (DoDI 6130.4) separately. Data from 2003-2005 are sorted by the total number of discharges in that time period (total column not shown). Data for 2006-2008 are sorted by total counts for 2006 -2008.

Table 1.57A shows the top 20 conditions leading to EPTS discharge from the Army among Active Duty personnel in 2003-2005. Asthma was the leading EPTS condition over the time period. Over the entire period considered, neurotic disorders, disease and pain of the lower and upper extremities, and back disorders were the most common conditions resulting in an EPTS discharge.

**TABLE 1.57A TOP 20 PRIMARY EPTS DISCHARGE CONDITIONS FOR ACTIVE DUTY ENLISTEES IN 2003 – 2005:
ARMY**

DoDI (6130.3)	Primary EPTS Condition	2003		2004		2005	
		n	%	n	%	n	%
493	Asthma	658	19.9	645	21.4	507	19.2
300	Neurotic, mood, somatoform, dissociative, or factitious disorder	378	11.4	376	12.5	390	14.8
719.4	Disease or chronic pain of lower extremities	324	9.8	296	9.8	262	9.9
724	Unspecified disorders of back	271	8.2	188	6.3	181	6.9
905.2	Upper extremity deformities, injury, and disease	179	5.4	165	5.5	147	5.6
784	Headaches	70	2.1	61	2.0	69	2.6
345	Convulsive disorder	51	1.5	44	1.5	48	1.8
754.6	Pes planus, congenital	50	1.5	51	1.7	47	1.8
718.1	Shoulder instability	99	3.0	55	1.8	47	1.8
401	Hypertensive	52	1.6	71	2.4	44	1.7
V22	Pregnancy	15	0.5	38	1.3	38	1.4
314	ADD/ADHD	46	1.4	34	1.1	34	1.3
717.9	Unspecified internal derangement of knee	51	1.5	38	1.3	30	1.1
313	Disturbance of emotions specific to childhood and adolescence	26	0.8	21	0.7	29	1.1
717.7	Chondromalacia and Patellofemoral Pain Syndrome,	55	1.7	46	1.5	24	0.9
732.4	Osteochondritis of the tibial tuberosity	45	1.4	27	0.9	23	0.9
746	Congenital anomalies of heart and great vessels	34	1.0	31	1.0	20	0.8
456.4	Varicocele	28	0.8	29	1.0	20	0.8
796	Nonspecific abnormal findings	27	0.8	29	1.0	16	0.6
737	Deviation or curvature of spine	40	1.2	26	0.9	15	0.6
Other	All other EPTS discharge categories	916	24.4	859	24.5	737	24.5
	Total for EPTS discharge categories	3,415	-	3,130	-	2,728	-

Table 1.57B shows the top 20 conditions leading to EPTS discharge from the Army for Active Duty enlistees in 2006- 2008. The expansion of the codes used to classify several psychiatric and orthopedic conditions resulted in an apparent underrepresentation of such conditions in 2006-2008 relative to previous years in which the DoDI 6130.3 governed the diagnostic coding of medical conditions. However, when the expanded categories are collapsed, the resulting totals appear consistent with the previous classification scheme. While several of the coding revisions possess a one to one correspondence between new and old codes, many of the revisions require additional information that is not readily available to translate between the two versions of the DoDI 6130.

In 2008, depressive disorders; lower leg pain, deformities, and disease; asthma; and disorders of the back were the leading causes of EPTS discharges. For all causes above, the number of EPTS increased 50% (asthma) to almost 200% (disorder of back).

TABLE 1.57B TOP 20 PRIMARY EPTS DISCHARGE CONDITIONS FOR ACTIVE DUTY ENLISTEES IN 2006 -2008: ARMY

DoDI 6130.4	Primary EPTS condition	2006		2007		2008	
		n	%	n	%	n	%
311	Depression, not elsewhere classified	148	14.1	128	9.4	164	9.3
719.46	Lower leg pain, deformities, or disease	34	3.3	79	5.8	139	7.9
493	Asthma	94	9.0	97	7.1	130	7.4
724	Unspecified disorders of back	32	3.1	60	4.4	100	5.7
309	Adjustment disorders	39	3.7	34	2.5	99	5.6
719.47	Ankle or foot pain, deformities or disease	25	2.4	54	4.0	68	3.8
719.41	Shoulder pain, disease, injury current	18	1.7	22	1.6	54	3.1
296.8	Bipolar disorder	41	3.9	33	2.4	52	2.9
296.3	Major Depression, Recurrent	35	3.3	27	2.0	48	2.7
345	Convulsive disorders	43	4.1	37	2.7	46	2.6
300.01	Anxiety	14	1.3	35	2.6	42	2.4
296.9	Mood disorder other and unspecified	12	1.1	38	2.8	40	2.3
722	Intervertebral disk degeneration, nucleus pulposus herniation, and spondylopathies	14	1.3	23	1.7	32	1.8
718.81	Shoulder instability	12	1.1	22	1.6	31	1.8
737	Deviation or curvature of spine	15	1.4	19	1.4	28	1.6
V22	Pregnancy	45	4.3	33	2.4	28	1.6
719.43	Forearm pain disease, injury current/wrist pain	6	0.6	14	1.0	24	1.4
734	Pes planus, acquired	13	1.2	21	1.5	22	1.2
796.9	Miscellaneous codes	8	0.8	19	1.4	18	1.0
719.45	Hip or thigh pain, deformities, or	14	1.3	19	1.4	12	0.7
Other	All other EPTS discharge categories	818	36.7	684	40.0	782	33.4
	Total for EPTS discharge categories	1,480	-	1,498	-	1,959	-

Table 1.58A shows the top 20 conditions leading to EPTS discharge from the Navy for Active Duty enlistees in 2003-2005. Asthma was the leading EPTS condition in 2003-2005. Diseases or chronic pain of lower extremities and neurotic disorders were the second and third leading causes of EPTS discharges in the Navy. Sizeable decreases in the frequency of EPTS discharges for disturbances of emotions specific to childhood and adolescence and ADD/ADHD, are apparent from 2003-2005. Such variation might partly reflect a difference in the applicant pool or random variations, but inconsistent reporting of EPTS discharges by USMEPCOM makes such determination difficult.

**TABLE 1.58A TOP 20 PRIMARY EPTS DISCHARGE CONDITIONS FOR ACTIVE DUTY ENLISTEES IN 2003 – 2005:
NAVY**

DoDI 6130.3	Primary EPTS Condition	2003		2004		2005	
		n	%	n	%	n	%
493	Asthma	180	12.9	126	15.5	174	15.9
719.4	Disease or chronic pain of lower extremities	82	5.9	45	5.5	101	9.2
300	Neurotic, mood, somatoform, dissociative, or factitious disorder	162	11.6	57	7.0	79	7.2
301	Personality disorders	119	8.5	29	3.6	58	5.3
724	Unspecified disorders of back	42	3.0	28	3.4	46	4.2
313	Disturbance of emotions specific to childhood and adolescence	85	6.1	25	3.1	35	3.2
737	Deviation or curvature of spine	24	1.7	47	5.8	34	3.1
371.6	Keratoconus of any degree	24	1.7	28	3.4	32	2.9
905.2	Upper extremity deformities, injury, and disease	27	1.9	19	2.3	29	2.6
314	ADD/ADHD	59	4.2	23	2.8	28	2.6
784	Headaches	26	1.9	17	2.1	27	2.5
389	Hearing deficiency	29	2.1	22	2.7	20	1.8
V22	Pregnancy	21	1.5	20	2.5	19	1.7
786.5	Chest pain	15	1.1	11	1.4	16	1.5
345	Convulsive disorder	24	1.7	21	2.6	16	1.5
796	Nonspecific abnormal findings	13	0.9	9	1.1	16	1.5
780.2	Syncope	14	1.0	7	0.9	16	1.5
831	Shoulder dislocation, unreduced, history or current (joint)	15	1.1	10	1.2	12	1.1
401	Hypertension	20	1.4	18	2.2	11	1.0
754.6	Pes planus, congenital	32	2.3	6	0.7	2	0.2
Other	All other EPTS discharge categories	473	27.3	344	30.2	493	29.7
	Total for EPTS discharge categories	1,486	-	912	-	1,264	-

Table 1.58B shows the top 20 conditions leading to EPTS discharge from the Navy among Active Duty personnel in 2006-2008. Lower leg pain and disease (11.3%) was the leading cause of EPTS discharge in 2008, followed by asthma (9.0%), and unspecified disorders of the back (5.9%).

TABLE 1.58B TOP 20 PRIMARY EPTS DISCHARGE CONDITIONS FOR ACTIVE DUTY ENLISTEES IN 2006 - 2008: NAVY

DoDI (6130.4)	Primary EPTS condition	2006		2007		2008	
		n	%	n	%	n	%
719.46	Lower leg pain, deformities, and disease (includes shin splints)	98	10.7	178	11.4	172	11.3
493	Asthma	108	11.8	178	11.4	137	9.0
724	Unspecified disorders of back	50	5.5	84	5.4	90	5.9
301	Personality disorders	48	5.2	92	5.9	61	4.0
311	Depression, not elsewhere classified	21	2.3	67	4.3	59	3.9
309	Adjustment disorders	18	2.0	61	3.9	48	3.2
719.47	Ankle or foot pain, deformities or disease	24	2.6	54	3.5	43	2.8
314	ADD/ADHD	21	2.3	41	2.6	36	2.4
737	Deviation or curvature of spine	22	2.4	28	1.8	36	2.4
780.2	Syncope	5	0.5	12	0.8	35	2.3
309.81	Posttraumatic Stress Disorder	24	2.6	40	2.6	32	2.1
718.81	Shoulder instability	13	1.4	26	1.7	28	1.8
371.6	Keratoconus of any degree	15	1.6	39	2.5	27	1.8
719.41	Shoulder pain, disease, injury (current)	6	0.7	22	1.4	26	1.7
786.5	Chest pain	17	1.9	16	1.0	25	1.6
346	Headaches, migraines	14	1.5	20	1.3	25	1.6
300.01	Anxiety	11	1.2	31	2.0	22	1.4
345	Convulsive disorders	11	1.2	18	1.2	22	1.4
V22	Pregnancy	26	2.8	27	1.7	19	1.3
719.45	Pain and deformities of the hip and thigh	10	1.1	18	1.2	16	1.1
Other	All other EPTS discharge categories	705	38.6	669	32.3	738	36.8
	Total for EPTS discharge categories	1,267	-	1,721	-	1,697	-

Table 1.59A shows the top 20 conditions leading to EPTS discharge of Active Duty Marine Corps enlistees during 2003 to 2005. Neurotic disorders and asthma were by far the largest contributors to EPTS discharges in Marines. These conditions were followed by personality disorders, and suicide attempt/ideation. Discharges attributable to orthopedic conditions were less common in the Marine Corps relative to the other services.

TABLE 1.59A TOP 20 PRIMARY EPTS DISCHARGE CONDITIONS FOR ACTIVE DUTY ENLISTEES IN 2003 – 2005: MARINES

DoDI 6130.3	Primary EPTS condition	2003		2004		2005	
		n	%	n	%	n	%
300	Neurotic, mood, somatoform, dissociative, or factitious disorder	253	21.4	256	18.6	283	21.8
493	Asthma	153	13.0	194	14.1	184	14.2
301	Personality disorders	60	5.1	105	7.6	105	8.1
300.9	Suicide behavior, gesture or attempt	39	3.3	84	6.1	69	5.3
719.4	Disease or chronic pain of lower extremities	46	3.9	47	3.4	48	3.7
724	Unspecified disorders of back	41	3.5	54	3.9	36	2.8
784	Headaches	37	3.1	46	3.3	35	2.7
314	ADD/ADHD	36	3.1	50	3.6	34	2.6
313	Disturbance of emotions specific to childhood and adolescence	34	2.9	39	2.8	28	2.2
905.2	Upper extremity deformities, injury, and disease	26	2.2	35	2.5	26	2.0
995.0	Other anaphylactic shock	16	1.4	18	1.3	22	1.7
305	Nondependent drug abuse	7	0.6	22	1.6	21	1.6
315	Academic skills or perceptual defects	7	0.6	20	1.5	18	1.4
831	Shoulder dislocation	19	1.6	15	1.1	17	1.3
718.1	Shoulder instability	25	2.1	13	0.9	14	1.1
389	Hearing deficiency	24	2.0	24	1.7	13	1.0
345	Convulsive disorder	23	1.9	13	0.9	11	0.8
307.6	Enuresis	12	1.0	19	1.4	10	0.8
796	Nonspecific abnormal findings	16	1.4	16	1.2	9	0.7
717.9	Unspecified internal derangement of knee	13	1.1	14	1.0	9	0.7
Other	All other EPTS discharge categories	386	24.8	365	21.2	388	23.6
	Total for EPTS discharge categories	1,273	-	1,449	-	1,380	-

Table 1.59B shows the top 20 conditions leading to EPTS discharge from the Marine Corps among Active Duty enlistees in 2006-2008. Depressive disorders, asthma, adjustment disorders, and suicidal gestures were the top four reasons for EPTS discharge among Marines in 2008.

TABLE 1.59B TOP 20 PRIMARY EPTS DISCHARGE CONDITIONS FOR ACTIVE DUTY ENLISTEES IN 2006 -2008: MARINES

DoDI (6130.4)	Primary EPTS condition	2006		2007		2008	
		n	%	n	%	n	%
311	Depression, not elsewhere classified	138	13.8	166	15.4	165	15.8
493	Asthma	140	14.0	158	14.6	157	15.0
309	Adjustment disorders	16	1.6	17	1.6	83	7.9
300.9	Suicide behavior, gesture or attempt	49	4.9	76	7.0	58	5.6
300.01	Anxiety	28	2.8	50	4.6	52	5.0
296.8	Bipolar disorder, other and unspecified	30	3.0	40	3.7	38	3.6
301	Personality disorders	69	6.9	55	5.1	38	3.6
724	Unspecified disorders of back	23	2.3	24	2.2	28	2.7
314	Attention Deficit Disorder	33	3.3	47	4.3	25	2.4
719.46	Lower leg pain, deformities, and disease (includes shin splints)	48	4.8	17	1.6	23	2.2
718.81	Shoulder instability	12	1.2	18	1.7	21	2.0
784.0	Headaches, recurrent	13	1.3	16	1.5	18	1.7
989.5	Allergic manifestations	27	2.7	41	3.8	17	1.6
345	Convulsive disorders	6	0.6	14	1.3	14	1.3
719.47	Ankle or foot pain, deformities or disease	9	0.9	10	0.9	13	1.2
737	Deviation or curvature of spine	6	0.6	7	0.6	13	1.2
346	Headaches, migraines	16	1.6	10	0.9	11	1.1
719.41	Shoulder pain, disease, injury (current)	9	0.9	12	1.1	6	0.6
780.2	Syncope	13	1.3	9	0.8	5	0.5
296.2	Depression, Major, single episode	23	2.3	11	1.0	3	0.3
Other	All other EPTS discharge categories	786	29.1	400	26.2	380	24.6
	Total for EPTS discharge categories	1,494	-	1,198	-	1,168	-

Table 1.60A shows the top 20 conditions leading to EPTS discharge of Active Duty enlistees from the Air Force during the period from 2003 to 2005. Asthma was the by far the leading cause of EPTS discharges among Air Force members over the 3-year period examined. Pain and disease of the lower extremities, disorders of the back, and headaches, were the second, third, and fourth leading causes for EPTS discharge in the Air Force.

**TABLE 1.60A TOP 20 PRIMARY EPTS DISCHARGE CONDITIONS FOR ACTIVE DUTY ENLISTEES IN 2003 – 2005:
AIR FORCE**

DoDI 6130.3	Primary EPTS Condition	2003		2004		2005	
		n	%	n	%	n	%
493	Asthma	242	47.5	311	46.8	133	34.0
719.4	Disease or chronic pain of lower extremities	29	5.7	50	7.5	60	15.3
724	Unspecified disorders of back	35	6.9	39	5.9	38	9.7
905.2	Upper extremity deformities, injury, and disease	18	3.5	18	2.7	20	5.1
784	Headaches	26	5.1	33	5.0	18	4.6
905.4	Lower extremity deformities, injury, and disease	7	1.4	15	2.3	16	4.1
796	Nonspecific abnormal findings	5	1.0	6	0.9	7	1.8
345	Convulsive disorder	7	1.4	15	2.3	6	1.5
995.0	Other anaphylactic shock	4	0.8	3	0.5	5	1.3
746	Congenital anomalies of heart and great vessels	11	2.2	9	1.4	4	1.0
427.0	Supraventricular tachycardia	5	1.0	8	1.2	4	1.0
P81	Surgical Correction of any knee ligaments	7	1.4	6	0.9	4	1.0
285	Anemia, unspecified	4	0.8	5	0.8	3	0.8
737	Deviation or curvature of spine	5	1.0	3	0.5	3	0.8
550	Hernia, including inguinal	8	1.6	5	0.8	3	0.8
754.6	Pes planus, congenital	25	4.9	17	2.6	3	0.8
685	Pilonidal cyst, current	7	1.4	15	2.3	3	0.8
795	Abnormal histological and immunological findings, including abnormal Papanicolaou smear	6	1.2	9	1.4	1	0.3
354	Intrinsic paralysis or weakness of upper limbs including nerve paralysis	4	0.8	7	1.1	1	0.3
732.4	Osteochondritis of the tibial tuberosity	7	1.4	9	1.4	1	0.3
Other	All other EPTS discharge categories	182	9.4	232	12.3	112	14.8
	Total for EPTS discharge categories	644	-	815	-	445	-

Table 1.60B shows the top 20 conditions leading to EPTS discharge of Active Duty enlistees from the Air Force in 2006- 2008. The primary causes for EPTS discharge in 2008 were asthma; lower leg pain and deformities; headaches; and pes planus. Different from other services, in all years considered, psychiatric conditions comprised only a small part of EPTS discharges and this may partly be a result of 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 1.60B TOP 20 PRIMARY EPTS DISCHARGE CONDITIONS FOR ACTIVE DUTY ENLISTEES IN 2006- 2008: AIR FORCE

DoDI (6130.4)	Primary EPTS condition	2006		2007		2008	
		n	%	n	%	n	%
493	Asthma	203	31.1	298	30.1	189	21.1
719.46	Lower leg pain, deformities, and disease (includes shin splints)	43	6.6	130	13.1	137	15.3
346	Headaches, migraines	66	10.1	81	8.2	80	8.9
754.6	Pes planus, congenital	14	2.1	50	5.1	74	8.3
734	Pes planus, acquired	35	5.4	39	3.9	58	6.5
724	Unspecified disorders of back	44	6.7	63	6.4	40	4.5
719.47	Ankle or foot pain, deformities or disease	11	1.7	36	3.6	29	3.2
737	Deviation or curvature of spine	2	0.3	17	1.7	25	2.8
733.9	Retain hardware	2	0.3	1	0.1	24	2.7
728	Muscular paralysis, contracture or atrophy current of history	2	0.3	10	1.0	17	1.9
728.71	Plantar fasciitis, current	14	2.1	15	1.5	17	1.9
784.0	Headaches, recurrent	10	1.5	8	0.8	16	1.8
718.81	Shoulder instability	10	1.5	10	1.0	14	1.6
735.0	Hallux valgus	5	0.8	8	0.8	12	1.3
746	Congenital anomalies of heart and great vessels	11	1.7	4	0.4	9	1.0
719.41	Shoulder pain, disease, injury (current)	4	0.6	21	2.1	9	1.0
345	Convulsive disorders	13	2.0	4	0.4	7	0.8
732.4	Osteochondritis of the tibial tuberosity	9	1.4	15	1.5	6	0.7
780.2	Syncope	9	1.4	18	1.8	5	0.6
796.9	Miscellaneous codes	4	0.6	14	1.4	4	0.4
Other	All other EPTS discharge categories	386	21.7	275	14.9	271	13.7
	Total for EPTS discharge categories	897	-	1,117	-	1,043	-

Part II: EPTS discharges with an accession record

EPTS discharges among enlistees who accessed during 2003-2008 are summarized in Tables 1.61 through 1.67. 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 “Data Sources” for details).

Table 1.61 shows EPTS discharges reported among individuals accessed into enlisted service during each year from 2003 through 2008. Other than an apparent decrease in frequency in 2005, no obvious pattern seems to exist in the number of EPTS discharges reported in 2003 through 2008. The percent of accessions receiving an EPTS discharge remained relatively stable over the same time period. The percentage of accession discharged for an EPTS condition was lowest in 2006.

TABLE 1.61 EPTS DISCHARGES BY ACCESSION YEAR

Year of accession	Accessions	Discharges	% Discharged
2003	174,969	5,692	3.3
2004	152,827	4,890	3.2
2005	129,718	4,184	3.2
2006	169,025	4,733	2.8
2007	166,842	5,586	3.3
2008	145,394	4,484	3.1
Total	938,775	29,569	-

Enlisted accessions between 2003 and 2008 ending in EPTS discharges are shown in Table 1.62 for each branch of service. It shows that the EPTS discharge varies across the services. Marines have the highest discharge rate and the Air Force has the lowest. The differences are significant.

TABLE 1.62 ENLISTED ACCESSIONS IN 2003 – 2008 ENDING IN EPTS DISCHARGE: BY SERVICE

Service	Accessions	Discharged	% Discharged	Relative risk	95% CI
Army	349,218	10,151	2.91	1.00	-
Navy	219,923	7,508	3.41	1.17	(1.13,1.21)
Marines	195,151	7,311	3.75	1.29	(1.25,1.33)
Air Force	174,483	4,599	2.64	0.91	(0.87,0.94)

Table 1.63 shows the numbers of accessions and subsequent EPTS discharges reported by gender. The risk of EPTS discharge is significantly higher among females relative to males.

TABLE 1.63 ENLISTED ACCESSIONS IN 2003 – 2008 ENDING IN EPTS DISCHARGE: GENDER

Gender	Accessions	Discharged	% Discharged	Relative risk	95% CI
Male	784,539	21,940	2.80	1.00	-
Female	154,230	7,628	4.95	1.77	(1.72,1.81)

The number of EPTS discharges and accessions are shown by race for the period of 2003 to 2008 in Table 1.64. The likelihood of EPTS discharge was the highest among whites, and the lowest among others. The difference was significant.

TABLE 1.64 ENLISTED ACCESSIONS IN 2003 – 2008 ENDING IN EPTS DISCHARGE: RACE

Race [†]	Accessions	Discharged	% Discharged	Relative risk	95% CI
White	636,245	21,021	3.30	1.00	-
Black	127,582	3,798	2.98	0.90	(0.87,0.93)
Other	83,748	2,132	2.55	0.77	(0.74,0.81)
Missing or declined	91,200	2,618	2.87	0.87	(0.83,0.90)

[†] Note: New categories for race were available beginning in 2003. However, greater numbers of applicants chose not to indicate their race.

Table 1.65 shows the numbers of accessions and EPTS discharges by age for the period of 2003 to 2008. The risk of discharge increases with increasing age group. Furthermore, the likelihood of EPTS discharge for each group is significantly higher relative to the next younger age group. The trend of discharge with age is significant.

TABLE 1.65 ENLISTED ACCESSIONS IN 2003 – 2008 ENDING IN EPTS DISCHARGE: AGE

Age group	Accessions	Discharged	% Discharged	Relative risk	95% CI
17 – 20	644,295	20,186	3.13	1.00	-
21 – 25	229,513	7,227	3.15	1.01	(0.98,1.03)
26 – 30	44,181	1,548	3.50	1.12	(1.06,1.17)
< 30	15,739	603	3.83	1.22	(1.13,1.32)

The number of EPTS discharges and accessions are shown by education level for 2003 to 2008 in Table 1.66. Relative to those accessions with a high school education at gain, enlistees with less than a high school education or who had some level of college education at gain were more likely to receive an EPTS discharge. Those enlistees entering onto Active Duty service with a Bachelor's degree or higher had a significantly lower risk for EPTS discharge relative to enlistees with a high school education.

TABLE 1.66 ENLISTED ACCESSIONS IN 2003 – 2008 ENDING IN EPTS DISCHARGE: EDUCATION LEVEL

Education level	Accessions	Discharged	% Discharged	Relative risk	95% CI
Below HS grad [†]	5,640	207	3.67	1.14	(1.00,1.30)
HS Diploma	817,703	26,328	3.22	1.00	-
Some college	25,879	858	3.32	1.03	(0.96,1.10)
Bachelor's and higher	20,654	384	1.86	0.58	(0.52,0.64)
Missing	68,899	1,792	2.60	-	-

[†] 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 but is not yet a senior.

Table 1.67 shows the enlisted accessions ending in EPTS discharge for the period between 2003 and 2008 by AFQT score. Those scoring in the highest percentile groups (93-99) had the lowest risk of EPTS discharge. Each lower percentile group had a significantly higher risk of EPTS discharge relative to the highest scoring group. The risk of EPTS discharge subsequently increases with each decreasing percentile category.

TABLE 1.67 ENLISTED ACCESSIONS IN 2003 – 2008 ENDING IN EPTS DISCHARGE: AFQT SCORE

AFQT score	Accessions	Discharged	% Discharged	Relative risk	95% CI
93 – 99	54,253	1,208	2.23	1.00	-
65 – 92	337,629	9,695	2.87	1.29	(1.22,1.37)
50 – 64	236,572	7,932	3.35	1.51	(1.42,1.59)
30 – 49	252,642	9,017	3.57	1.60	(1.51,1.70)
11 – 29 [†]	47,784	1,675	3.51	1.57	(1.46,1.69)
Missing	8,258	4	-	-	-

[†] Individuals scoring in the 10th percentile or lower are prohibited from applying, although some exceptions have been noted.

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 2003-2008. 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 irrespective of an accession record

Numbers are presented irrespective of accession records; the years shown refer to the year of disability 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 (VASRD; see the "Disability" section in "Data Sources"). The grouping of VASRD codes was updated in the CY 2007 Annual Report. The current definitions are provided in the Data Sources Section (need to update). The revisions took into account the use of analogous codes which are unspecified disorders within a general diagnostic category. For example, code 5399 would indicate an unspecified muscle injury (in isolation) or a previously undefined condition (when in combination with a second or third code).

Table 1.68 shows the leading diagnoses for disability discharge for the Army. Data are shown in aggregate for 2003-2007 and separately for 2008. Collectively, impairments and disease of the spine, skull, limbs, and extremities, as well as other diseases of the musculoskeletal system (including joint replacement) were by far the most common diagnoses cited for disability discharges in both 2008 (34.0%) and the previous five-year period (34.8%). Prosthetic implants and diseases of the musculoskeletal system were the second leading cause of disability in both time periods, accounting for 20.8% in 2003-2007 and 21.0% in 2008. Affective and nonpsychotic mental disorders were the third leading cause of disability discharges in both time periods, accounting for 7.7% in 2003-2007 and 8.0% in 2008.

TABLE 1.68 PRIMARY DIAGNOSIS CATEGORIES FOR DISABILITY DISCHARGES FROM ACTIVE DUTY IN 2003 – 2007 VS. 2008 (IRRESPECTIVE OF LENGTH OF SERVICE): ARMY

Diagnosis category	2003 - 2007		2008	
	Count	%	Count	%
Impairment, limitation, ankylosis of joints, spine, skull, limbs, and extremities	19,699	34.8	4,079	34.0
Prosthetic Implants and diseases of the musculoskeletal system	11,804	20.8	2,523	21.0
Affective and nonpsychotic mental disorders	4,373	7.7	960	8.0
Diseases of the trachea and bronchi	2,717	4.8	584	4.9
Organic Diseases of the Central Nervous System	2,227	3.9	476	4.0
Schizophrenia and other psychotic disorders	2,119	3.7	463	3.9
Diseases of the peripheral nerves	1,840	3.2	371	3.1
Diseases of the digestive system	1,288	2.3	258	2.1
Infectious diseases, immune disorders, and nutritional deficiencies	1,046	1.8	233	1.9
Miscellaneous neurological disorders	1,093	1.9	224	1.9
Muscle injuries	924	1.6	208	1.7
Diseases of the endocrine system	837	1.5	194	1.6
Diseases of the heart	913	1.6	182	1.5
Convulsive disorders	763	1.3	151	1.3
Diseases of the genitourinary system	653	1.2	144	1.2
Diseases of the respiratory system	627	1.1	129	1.1
Diseases of the arteries and veins	572	1.0	116	1.0
Organic psychotic disorders	382	0.7	111	0.9
The hemic and lymphatic systems	489	0.9	106	0.9
Diseases of the skin	522	0.9	105	0.9
Diseases of the Eye or loss of vision	527	0.9	105	0.9
Amputation or anatomical loss of upper and lower extremities	364	0.6	76	0.6
Gynecological conditions and disorders of the breast	160	0.3	43	0.4
Diseases of the cranial nerves	190	0.3	43	0.4
Diseases of the Ear	88	0.2	24	0.2
Other and unspecified disorders of the sensory organs	63	0.1	16	0.1
Diseases of the nose and throat	97	0.2	16	0.1
Injury to the mouth, lips, tongue, and esophagus	37	0.1	5	0.0
Dental and oral conditions	28	0.0	4	0.0
Diseases of other sense organs (smell and taste)	1	0.0	0	-
Tuberculosis	1	0.0	0	-
Other/Missing	221	0.4	62	0.5
Total	56,665	-	12,011	-

Table 1.69 shows the leading diagnoses for disability discharge for the Air Force. Disability data from 2003 to 2007 are presented in aggregate while 2008 data is summarized separately. Impairments and disease of the spine, skull, limbs, and extremities accounted for 25.7% of disability discharges in 2008 and 24.7% in the period from 2003 to 2007. Affective and nonpsychotic mental disorders were the second most common discharge condition in 2003-2007 (20.4%) and in 2008 (19.7%). Discharges for prosthetic implants and diseases of the musculoskeletal system were the third leading cause of disability discharge (10.5%) in 2008, while diseases of the trachea and bronchi were the third one from 2003 to 2007(10.0%).

TABLE 1.69 PRIMARY DIAGNOSIS CATEGORIES FOR DISABILITY DISCHARGES FROM ACTIVE DUTY IN 2003 – 2007 VS. 2008 (IRRESPECTIVE OF LENGTH OF SERVICE): AIR FORCE

Diagnosis category	2003 - 2007		2008	
	Count	%	Count	%
Impairment, limitation, ankylosis of joints, spine, skull, limbs, and extremities	2,899	24.7	621	25.7
Affective and nonpsychotic mental disorders	2,391	20.4	476	19.7
Prosthetic Implants and diseases of the musculoskeletal system	1,064	9.1	255	10.5
Diseases of the trachea and bronchi	1,169	10.0	156	6.4
Diseases of the digestive system	480	4.1	107	4.4
Diseases of the peripheral nerves	327	2.8	101	4.2
Miscellaneous neurological disorders	421	3.6	89	3.7
Diseases of the respiratory system	144	1.2	70	2.9
Organic Diseases of the Central Nervous System	347	3.0	68	2.8
Diseases of the endocrine system	299	2.5	56	2.3
Diseases of the heart	247	2.1	55	2.3
Convulsive disorders	278	2.4	48	2.0
Schizophrenia and other psychotic disorders	296	2.5	46	1.9
Muscle injuries	291	2.5	40	1.7
Diseases of the genitourinary system	135	1.2	33	1.4
Diseases of the Eye or loss of vision	78	0.7	32	1.3
The hemic and lymphatic systems	135	1.2	26	1.1
Diseases of the cranial nerves	101	0.9	24	1.0
Diseases of the arteries and veins	114	1.0	24	1.0
Diseases of the skin	94	0.8	21	0.9
Organic psychotic disorders	125	1.1	19	0.8
Infectious diseases, immune disorders, and nutritional deficiencies	73	0.6	15	0.6
Diseases of the Ear	69	0.6	14	0.6
Gynecological conditions and disorders of the breast	81	0.7	13	0.5
Diseases of the nose and throat	18	0.2	3	0.1
Amputation or anatomical loss of upper and lower extremities	25	0.2	3	0.1
Dental and oral conditions	11	0.1	2	0.1
Injury to the mouth, lips, tongue, and esophagus	4	0.0	1	0.0
Other/Missing	13	0.1	3	0.1
Total	11,729	-	2,421	-

Part II: Disability discharges with an accession record

Numbers of medical disability discharges within the first year of service among Army and Air Force personnel who accessed during 2003 to 2008 are presented in Tables 1.70 through 1.76. 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 the “Disability” section in “Data Sources”).

Table 1.70 shows the numbers of disability discharges reported among individuals accessed into the Army or Air Force enlisted service during each year from 2003 to 2008. Results are shown for each year of accession. The percentages of disability discharges within one year of service are increasing over time, except for 2008. Duty service for accessions in 2007 is underestimated due to incomplete follow-up time.

TABLE 1.70 DISABILITY DISCHARGES FOR ACTIVE DUTY WITHIN ONE YEAR OF SERVICE IN 2003 – 2008: BY YEAR

Year of accession	Total accessed	Discharged within one year of accession	
		Count	%
2003	103,397	642	0.62
2004	84,396	525	0.62
2005	60,628	484	0.80
2006	101,774	814	0.80
2007	95,070	888	0.93
2008	78,436	265	0.34

Table 1.71 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 enlistees.

TABLE 1.71 DISABILITY DISCHARGES FOR ACTIVE DUTY WITHIN ONE YEAR OF SERVICE IN 2003 – 2008: BY SERVICE

Service	Total accessions	Discharged within one year of accession			
		Count	%	Relative risk	95% CI
Army	349,218	2,780	0.80	1.00	-
Air Force	174,483	838	0.48	0.60	(0.56,0.65)

The demographic characteristics of Army and Air Force accessions ending in disability discharge within one year of service are shown in Tables 1.72 through 1.76. Females were more than twice as likely to be discharged for disabilities as males were. The risk of disability discharge also increased with increasing age. Each younger age group had a significantly lower risk of disability discharge relative to the older age group. On comparison of the risk of disability discharge across race groups, whites clearly have a higher risk of discharge compared to all other racial groups except for those who declined to report race. With respect to the level of education attained by accession, the highest risk of disability discharge was observed for enlistees who had some level of college education prior to accession, which was significantly greater relative to accessions with a high school education. The lowest risk of disability discharge was for soldiers with less than a high school education.

TABLE 1.72 DISABILITY DISCHARGES FOR ACTIVE DUTY WITHIN ONE YEAR OF SERVICE IN 2003 – 2008: BY GENDER

Gender	Total accessions	Discharged within one year of accession			
		Count	%	Relative risk	95% CI
Male	422,446	2,255	0.53	1.00	-
Female	101,250	1,363	1.35	2.52	(2.36,2.70)

TABLE 1.73 DISABILITY DISCHARGES FOR ACTIVE DUTY WITHIN ONE YEAR OF SERVICE IN 2003 – 2008: BY AGE

Age	Total accessions	Discharged within one year of service			
		Count	%	Relative risk	95% CI
17 – 21	333,018	1,908	0.57	1.00	-
21 – 25	144,376	1,147	0.79	1.39	(1.29,1.49)
26 – 30	30,581	345	1.13	1.97	(1.76,2.21)
> 30	12,584	205	1.63	2.84	(2.46,3.28)

TABLE 1.74 DISABILITY DISCHARGES FOR ACTIVE DUTY WITHIN ONE YEAR OF SERVICE IN 2003 – 2008: BY RACE

Race [†]	Total accession	Discharged within one year of service			
		Count	%	Relative risk	95% CI
White	343,344	2,459	0.72	1.00	-
Black	70,554	300	0.43	0.60	(0.53,0.67)
Other	34,778	208	0.60	0.84	(0.73,0.96)
Declined	75,025	651	0.87	1.21	(1.11,1.32)

[†] Note: New categories for race were available beginning in 2003. However, greater numbers of applicants chose not to indicate their race.

TABLE 1.75 DISABILITY DISCHARGES FOR ACTIVE DUTY WITHIN ONE YEAR OF SERVICE IN 2003 – 2008: BY EDUCATION

Education level	Total accessions	Discharged within one year of service			
		Count	%	Relative risk	95% CI
Below HS graduate [†]	1,287	4	0.31	0.44	(0.17,1.18)
HS diploma	431,332	3,033	0.70	1.00	-
Some college	14,498	147	1.01	1.44	(1.22,1.70)
Bachelor's and higher	13,762	114	0.83	1.18	(0.98,1.42)
Missing	62,822	320	0.51	-	-

[†] 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 but is not yet a senior.

Table 1.76 shows the numbers and likelihood of disability discharge within the first year of service by AFQT percentile score. All the discharge rates were similar to each other and no significant difference was found when comparing the likelihood of disability discharge within one year of service between any two AFQT score categories.

TABLE 1.76 DISABILITY DISCHARGES FOR ACTIVE DUTY WITHIN ONE YEAR OF SERVICE IN 2003 – 2008: BY AFQT SCORE

AFQT score	Total accessions	Discharged within one year of service			
		Count	%	Relative risk	95% CI
93 – 99	30,908	213	0.69	1.00	-
65 – 92	187,241	1,386	0.74	1.07	(0.93,1.24)
50 – 64	132,791	938	0.71	1.03	(0.88,1.19)
30 – 49	139,174	884	0.64	0.92	(0.79,1.07)
11 – 29 [†]	28,206	174	0.62	0.90	(0.73,1.09)
Missing	4,260	15	-	-	-

[†] Individuals scoring in the 10th percentile or lower are prohibited from applying, although some exceptions have been noted.

Table 1.77 shows the leading diagnoses for disability discharge for the Army within the first year of service. Data are shown in aggregate for 2003-2006 compared to aggregate 2007-2008. Disability discharges for impairments and disease of the spine, skull, limbs, and extremities, as well as other diseases of the musculoskeletal system (including joint replacement) accounted for 35.9% of all Army disability discharges in 2007-2008 followed by prosthetic implants and other musculoskeletal injuries (24.8%). For 2007-2008 in aggregate around 60.7% of all disability discharges were related to musculoskeletal issues while all other disability discharges among first-year soldiers collectively account for only 39.3%. Nonpsychotic mental disorders were the third leading cause of disability discharges accounting for 7.6%.

TABLE 1.77 DIAGNOSIS CATEGORIES FOR DISABILITY DISCHARGES AMONG FIRST-TIME ACTIVE DUTY PERSONNEL WITHIN THE FIRST YEAR OF SERVICE FOR 2003 – 2006 VS. 2007-2008: ARMY

Diagnosis category	2003 - 2006		2007 - 2008	
	Count	%	Count	%
Impairment, limitation, ankylosis of joints, spine, skull, limbs, and extremities	645	34.2	322	35.9
Prosthetic Implants and diseases of the musculoskeletal system	420	22.3	222	24.8
Affective and nonpsychotic mental disorders	132	7.0	68	7.6
Organic Diseases of the Central Nervous System	62	3.3	34	3.8
Diseases of the trachea and bronchi	85	4.5	28	3.1
Schizophrenia and other psychotic disorders	64	3.4	27	3.0
Diseases of the digestive system	35	1.9	24	2.7
Diseases of the peripheral nerves	64	3.4	20	2.2
Muscle injuries	39	2.1	18	2.0
Diseases of the heart	31	1.6	16	1.8
Infectious diseases, immune disorders, and nutritional deficiencies	32	1.7	14	1.6
Convulsive disorders	21	1.1	14	1.6
Diseases of the skin	18	1.0	11	1.2
Diseases of the genitourinary system	13	0.7	11	1.2
Diseases of the endocrine system	36	1.9	9	1.0
Miscellaneous neurological disorders	40	2.1	8	0.9
Amputation or anatomical loss of upper and lower extremities	18	1.0	8	0.9
Diseases of the respiratory system	19	1.0	7	0.8
The hemic and lymphatic systems	27	1.4	6	0.7
Organic psychotic disorders	14	0.7	6	0.7
Diseases of the arteries and veins	25	1.3	5	0.6
Diseases of the Eye or loss of vision	18	1.0	5	0.6
Diseases of the cranial nerves	7	0.4	5	0.6
Gynecological conditions and disorders of the breast	5	0.3	1	0.1
Other and unspecified disorders of the sensory organs	3	0.2	1	0.1
Diseases of the Ear	2	0.1	1	0.1
Dental and oral conditions	2	0.1	0	-
Injury to the mouth, lips, tongue, and esophagus	2	0.1	0	-
Other/Missing	5	0.3	5	0.6
Total	1,884	-	896	-

Table 1.78 shows the leading diagnoses for disability discharge for the Air Force within the first year of service. Data are shown in aggregate for 2003-2006 compared to in aggregate for 2007-2008. As was observed for first-year Army soldiers, disability discharges for impairments and disease of the spine, skull, limbs, and extremities (50.6%), as well as prosthetic implants and other diseases of the musculoskeletal system (14.5%) were the largest single categories for disability discharges among first-year Air Force enlistees.

TABLE 1.78 DIAGNOSIS CATEGORIES FOR DISABILITY DISCHARGES AMONG FIRST-TIME ACTIVE DUTY PERSONNEL WITHIN THE FIRST YEAR OF SERVICE FOR 2003 – 2006 VS. 2007-2008: AIR FORCE

Diagnosis category	2003 - 2006		2007 - 2008	
	Count	%	Count	%
Impairment, limitation, ankylosis of joints, spine, skull, limbs, and extremities	185	31.8	129.0	50.6
Prosthetic Implants and diseases of the musculoskeletal system	110	18.9	37.0	14.5
Schizophrenia and other psychotic disorders	50	8.6	25	9.8
Affective and nonpsychotic mental disorders	52	9.0	11	4.3
Diseases of the digestive system	11	1.9	10	3.9
Diseases of the trachea and bronchi	48	8.3	7	2.8
Muscle injuries	17	2.9	7	2.8
Diseases of the peripheral nerves	12	2.1	7	2.8
Miscellaneous neurological disorders	11	1.9	5	2.0
Convulsive disorders	17	2.9	2	0.8
Diseases of the endocrine system	8	1.4	2	0.8
Diseases of the respiratory system	6	1.0	2	0.8
Diseases of the skin	5	0.9	2	0.8
The hemic and lymphatic systems	3	0.5	2	0.8
Infectious diseases, immune disorders, and nutritional deficiencies	1	0.2	2	0.8
Diseases of the genitourinary system	10	1.7	1	0.4
Organic Diseases of the Central Nervous System	10	1.7	1	0.4
Diseases of the heart	8	1.4	1	0.4
Diseases of the arteries and veins	7	1.2	1	0.4
Diseases of the Eye or loss of vision	1	0.2	1	0.4
Organic psychotic disorders	3	0.5	0	-
Dental and oral conditions	2	0.3	0	-
Diseases of the cranial nerves	2	0.3	0	-
Diseases of the nose and throat	1	0.2	0	-
Gynecological conditions and disorders of the breast	1	0.2	0	-
Total	583	-	255	-

2. DATA SOURCES

The Accession Medical Standards Analysis and Research Activity (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 Military Entrance Processing Stations (MEPS) sites. These data, provided by US Military Entrance Processing Command (USMEPCOM) 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 non-applicants receiving periodic physical examinations.

From the data records provided by USMEPCOM, 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 the 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 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 such as age, education, and Armed Forces Qualification Test (AFQT) score at the time of accession; and service information including date of entry and Initial Entry Training (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 Inter-service Separation Code (ISC) 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 ISC 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 ISC 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 Existing Prior to Service (EPTS) pregnancy might be coded "pregnancy," "condition existing prior to service," or "fraudulent enlistment." This lack of specificity, as well as inter-service 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 [1].

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 (prior to 2006) and Marines code waiver conditions according to the subset of ICD-9 codes presented in DoD Instruction 6130.3 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 (fully qualified recruits), 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 including the manpower needs of the services. AMSARA will work with the services' waiver authorities to reconcile these findings.

Air Force

The US 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, action (e.g., approved, disapproved, other), and date of waiver consideration. In addition, ICD-9 codes are used to define the medically disqualifying condition(s) for which the waiver is being considered.

Army

The US Army Recruiting Command (USAREC, 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, ICD-9 codes are used to define the medically disqualifying condition(s) for which the waiver is being considered. Beginning in fiscal year 2008, only one ICD-9 code, which represents the primary condition for which a waiver was considered, will be reported as opposed to previous years in which multiple ICD-9 codes were reported per individual (USAREC, personal communication).

Marines

The US 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 Reserve Officers' Training Corps (ROTC) and the Naval Academy. Data include name, SSN, date of waiver consideration, and recommended action (e.g., approved, disapproved, other). In addition, the subset of ICD-9 codes listed in DoD Instruction (DoDI) 6130.3 is used to indicate the medically disqualifying condition(s) for which the waiver is being considered.

Navy

The Office of the Commander, US Navy Recruiting Command (Millington, TN) provides accession medical waiver data on applicants for enlisted service in the Navy since May 2000. Prior to 2006, medically disqualifying conditions were encoded by the subset of ICD-9 codes defined by DoDI 6130.3. However, in 2006, 2007 and 2008, a hybrid coding system employing elements of both DoDI 6130.3 and the revised instruction, DoDI 6130.4 was in use.

Hospitalization

The US Medical Command (USMEDCOM) Patient Administration Systems and Biostatistics Activity (PASBA) at Fort Sam Houston, TX provide 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 ICD-9, 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. USMEPCOM 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 USMEPCOM 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 2.1 summarizes the numbers of records provided to AMSARA over 2003-2008. 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 were considerably lower in 2005 and 2006. Furthermore, No EPTS discharges were reported by this training site in 2007

and 2008. Although some variability in numbers of EPTS records over time is expected, underreporting is clearly a major source of the fluctuations.

TABLE 2.1 EPTS DISCHARGE DATA REPORTED TO USMEPCOM BY TRAINING SITE AND YEAR[†]

Training Site		Fiscal Year of EPTS Discharge						
		2003	2004	2005	2006	2007	2008	Total
Army	Fort Benning	1127	1391	1474	621	356	858	5827
	Fort Jackson	1192	1104	1084	882	997	689	5948
	Fort Knox	542	355	307	135	259	340	1938
	Fort Leonard Wood	757	675	643	336	421	802	3634
	Fort Sill	587	685	264	168	281	335	2320
Navy	Great Lakes	1454	840	1200	1294	1894	1888	8570
Marines [‡]	Parris Island	892	1066	1227	1354	1363	1297	7199
	San Diego	527	573	246	348	-	-	1694
Air Force	Lackland AFB	646	782	453	964	1192	1125	5162
Coast Guard	Cape May	179	181	159	210	259	315	1303
Total		7903	7652	7057	6312	7022	7649	43595

[†] 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.

[‡] EPTS discharges were not reported by the San Diego Marine Corps training site in Fiscal Years 2007 and 2008.

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 1995–2008 and continues to provide these data. The Air Force agency has also provided data to cover the period of 1995–2008. 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 1.

The Army Physical Disability Agency (PDA) provides information on all disability cases considered, including personal identifiers (e.g., name and SSN), program (e.g., regular enlisted, academy, or officer), date of consideration, and disposition (e.g., permanent disability, separation with or without benefits, temporary disability, or return to duty as fit). For individuals receiving a disability discharge, medical condition codes and degree of disability (rating) 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 (VASRD). This set is less comprehensive than the ICD-9 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. These categories are defined in Table 2.2 and reflect revisions made for the fiscal year 2008 Annual Report.

TABLE 2.2 VASRD CODE GROUPINGS

VASRD code range	Conditions encompassed	VASRD code range	Conditions encompassed
5000 - 5099	Prosthetic Implants and diseases of the musculoskeletal system	7300 - 7399	Diseases of the digestive system
5100 - 5199	Amputation or anatomical loss of upper and lower extremities	7500 - 7599	Diseases of the genitourinary system
5200 - 5299	Impairment, limitation, ankylosis of joints, spine, skull, limbs, and extremities	7600 - 7699	Gynecological conditions and disorders of the breast
5300 - 5399	Muscle injuries	7700 - 7799	The hemic and lymphatic systems
6000 - 6099	Diseases of the Eye or loss of vision	7800 - 7899	Diseases of the skin
6200 - 6269	Diseases of the Ear	7900 - 7999	Diseases of the endocrine system
6270 - 6279	Diseases of other sense organs (smell and taste)	8000 - 8099	Organic Diseases of the Central Nervous System
6280 - 6299	Other and unspecified disorders of the sensory organs	8100 - 8199	Miscellaneous neurological disorders
6300 - 6399	Infectious diseases, immune disorders, and nutritional deficiencies	8200 - 8499	Diseases of the cranial nerves
6500 - 6599	Diseases of the nose and throat	8500 - 8799	Diseases of the peripheral nerves
6600 - 6699	Diseases of the trachea and bronchi	8900 - 8999	Convulsive disorders
6700 - 6799	Tuberculosis	9200 - 9299	Schizophrenia and other psychotic disorders
6800 - 6899	Diseases of the respiratory system	9300 - 9399	Organic psychotic disorders
7000 - 7099	Diseases of the heart	9400 - 9599	Affective and nonpsychotic mental disorders
7100 - 7199	Diseases of the arteries and veins	9900 - 9999	Dental and oral conditions
7200 - 7299	Injury to the mouth, lips, tongue, and esophagus		

REFERENCES

1. Niebuhr DW, Powers TE, Krauss MR, Cuda A, Johnson K. A Review of Initial Entry Training Discharges at Fort Leonard Wood, MO for Accuracy of Discharge Classification Type: Fiscal Year 2003. *Mil Med.* 2006 Nov;171 (11):1142-6.

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. 20307-1200

DEC 08 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. Mattes / sm
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

ACL	anterior cruciate ligament	GED	general educational development
ADD	attention deficit disorder		
ADHD	attention deficit and hyperactivity disorder	HS	high school
AFB	Air Force base	ICD-9	<i>International Classification of Diseases, 9th Revision</i>
AFQT	Armed Forces Qualification Test	IET	Initial Entry Training
AMSARA	Accession Medical Standards Analysis and Research Activity	ISC	Interservice Separation Code
AMSWG	Accession Medical Standards Working Group	MEPS	Military Entrance Processing Station
ARMS	Assessment of Recruit Motivation and Strength	MIA	Missing in Action
AWOL	Absent Without Leave	MTF	Military Medical Treatment Faculty
BCT	Basic Combat Training	OMF	Objective Medical Findings
BMI	body mass index	POW	Prisoner of War
BUMED	Navy Bureau of Medicine and Surgery	RIF	Reduction in Force
CY	Calendar year	ROTC	Reserve Officer Training Corps
DEP	Delayed Entry Program	SSB	Special Separation with Benefits
DMDC	Defense Manpower Data Center	SSN	social security number
DoD	Department of Defense	USMEDCOM	US Medical Command
		USMEPCOM	US Military Entrance Processing Command
DoDMERB	Department of Defense Medical Examination Review Board	VASRD	Veterans Administration Schedule for rating Disability
EPTS	existed prior to service	VSI	Voluntary Separation Incentive
FY	fiscal year	WRAIR	Walter Reed Army Institute of Research



Accession Medical Standards Analysis & Research Activity

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