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Hospitalizations among Active Component Members, US Armed Forces, 2003

This report documents frequencies, rates, trends (since 1993), and characteristics of hospitalizations of active component members of the US Armed Forces during 2003 (as documented by standardized, automated records mainained in the Defense Medical Surveillance System). Specifically, this report summarizes hospitalizations of servicemembers in U.S. military hospitals (Standard Inpatient Data Records [SIDR]) since 1993 and in non-military hospitals (Health Care Service Records [HCSR]) since 1995 based on the first three digits of first listed ("primary") discharge diagnoses (International Classification of Diseases, 9th revision, clinical modifications). Records of hospitalizations not documented with automated records (e.g., during deployments, field training exercises, shipboard) are not included.

Frequencies, rates, and trends. During 2003, there were 72,252 automated reports of hospitalizations of active component servicemembers (table 1)—approximately one-fifth (20.6%) of the hospitalizations were in non-military facilities (documented with HCSR records). In 2003, the hospitalization rate (all causes) was 51.2 per 1,000 servicemembers per year. The crude rate in 2003 was slightly lower (-3.4%) than the rate in 2002 but approximately 50% lower than the rates prior to 1997 (figure 1).

Hospitalizations, by illness and injury categories. In general, the distribution of hospitalizations by major diagnostic categories in 2003 was similar to distributions in prior years (table 1). In 2003, pregnancy-related conditions (including labor and delivery) (24.1%), "injuries and poisonings" (15.0%) and "mental disorders" (13.6%) accounted for more than half of all hospitalizations of servicemembers (table 1).

Of note, in 2003 compared to 1999, the largest increases in hospitalizations were for pregnancy-related conditions (2003 vs 1999: +1,553 hospitalizations; +9.8%), "injuries and poisonings" (2003 vs 1999: +1,475 hospitalizations; +15.8%), "signs, symptoms, and ill-defined conditions" (2003 vs 1999: +637 hospitalizations; +16.1%), and "disorders of skin and subcutaneous tissue" (2003 vs 1999: +451 hospitalizations; +31.6%), while the largest decrease was for "musculoskeletal disorders" (2003 vs 1999: -3,327 hospitalizations; -34.7%) (table 1).

In 2003, the hospitalization rate (all causes) among females was 3.8 times higher than among males (crude overall rates, females: 135.9 per 1,000 per year; males: 36.2 per 1,000 per year). Excluding pregnancy-related hospitalizations, the crude rate among females (53.8 per 1,000 per year) was 1.5 times higher than among males. The largest differences in rates between females and males were for "genitourinary disorders," "mental disorders," and "neoplasms" (figure 3). Of note, hospitalization rates were higher among males than females for "injuries and poisonings," "musculoskeletal disorders," "respiratory disorders," "circulatory disorders," and "skin and subcutaneous tissue disorders" (figure 3).

Hospitalization rates in relation to age markedly varied across major diagnostic categories (figure 2). For example, hospitalization rates for "neoplasms," "circulatory disorders," and "musculoskeletal disorders" sharply increased with age, while hospitalization rates for "infectious and parasitic diseases," "mental disorders," "respiratory disorders," and "injuries and poisonings" generally declined with age (table 2). In general, relationships between diagnostic category-specific hospitalization rates and age were similar among males and females (figure 2).

Most frequent diagnoses. In 2003, seven diagnoses (as specified by 3-digit ICD-9-CM codes) accounted for more than 1,000 hospitalizations each among male servicemembers: "adjustment reactions"(n=2,431), "affective psychoses" (n=1,678), "intervertebral disc disorders" (n=1,607), "acute appendicitis" (n=1,496), "symptoms involving respiratory/other chest symptoms" (n=1,428), "other cellulitis and abscess" (n=1,229), and "pneumonia, organism unspecified" (n=1,088) (table 2).

Four diagnoses (all related to labor and delivery) accounted for at least 1,000 hospitalizations

each among females: "trauma to perineum and vulva during delivery" (n=4,082), "delivery in a completely normal case" (n=1,487), "abnormality of forces of labor" (n=1,189), and "early or threatened labor" (n=1,116] (table 3). Other leading causes of hospitalizations of females were "adjustment reaction" (n=849), "affective psychoses" (n=679), "uterine leiomyoma" (n=471), and "other symptoms involving the abdomen/pelvis" (n=361) (table 3).

Durations of hospitalizations. In 2003, median durations of hospitalizations were similar—but ranges of lengths of hospitalizations varied—across illness and injury categories (figure 4). For example, hospitalizations for "mental disorders," "injuries/ poisonings," and "neoplasms" were relatively longer than hospitalizations for other conditions (figure 3). In general, medians and ranges of lengths of hospitalizations have been stable since 1997 (figure 4).

Intentions and activities associated with injuries and poisonings. In 2003, "injuries and poisonings" accounted for more hospitalizations of servicemembers than any other major category of diagnoses (excluding pregnancy-related conditions). Most (87.7%) injuries/poisonings that resulted in hospitalizations were considered unintentional; however, 6.9% (n=752) were reported as "war related." Of hospitalizations for unintentional injuries, the most frequently reported specific "causes" were "falls and miscellaneous," "land transport," "complications of medical care," and "athletics" (table 4).

Data analysis by Barbara Nagaraj, MPH, Analysis Group, Army Medical Surveillance Activity.

Figure 1. Rate of hospitalizations by calendar year, US Armed Forces, 1993-2003.

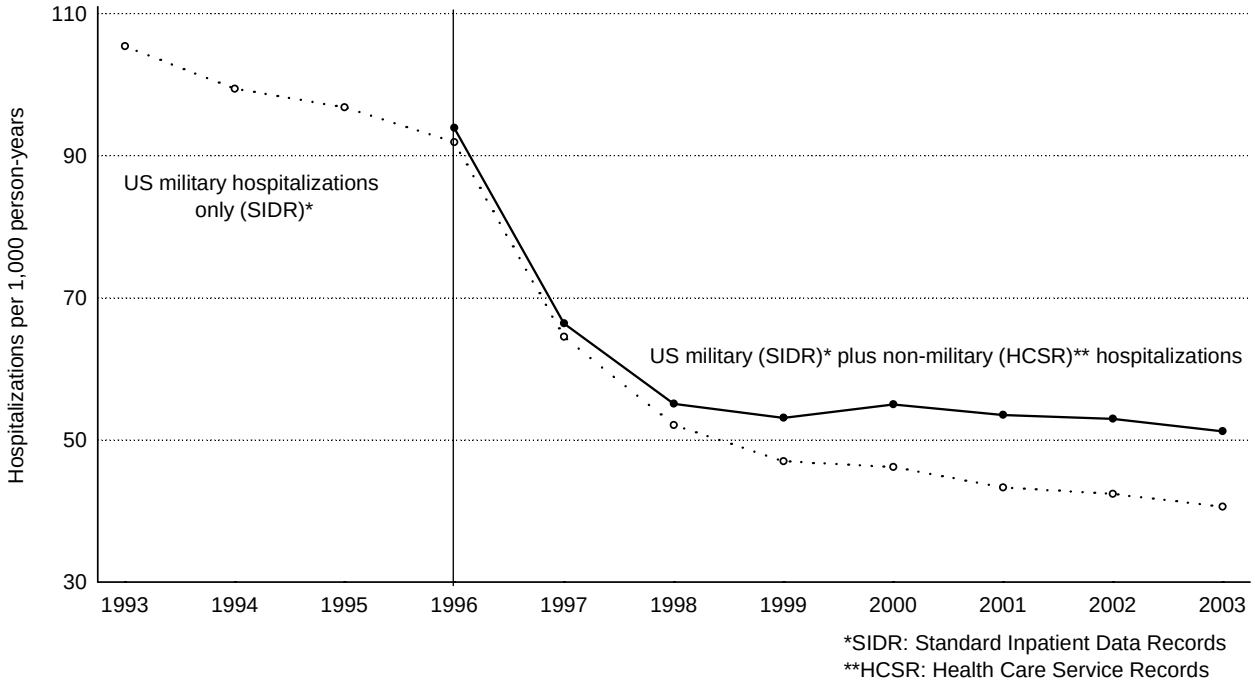
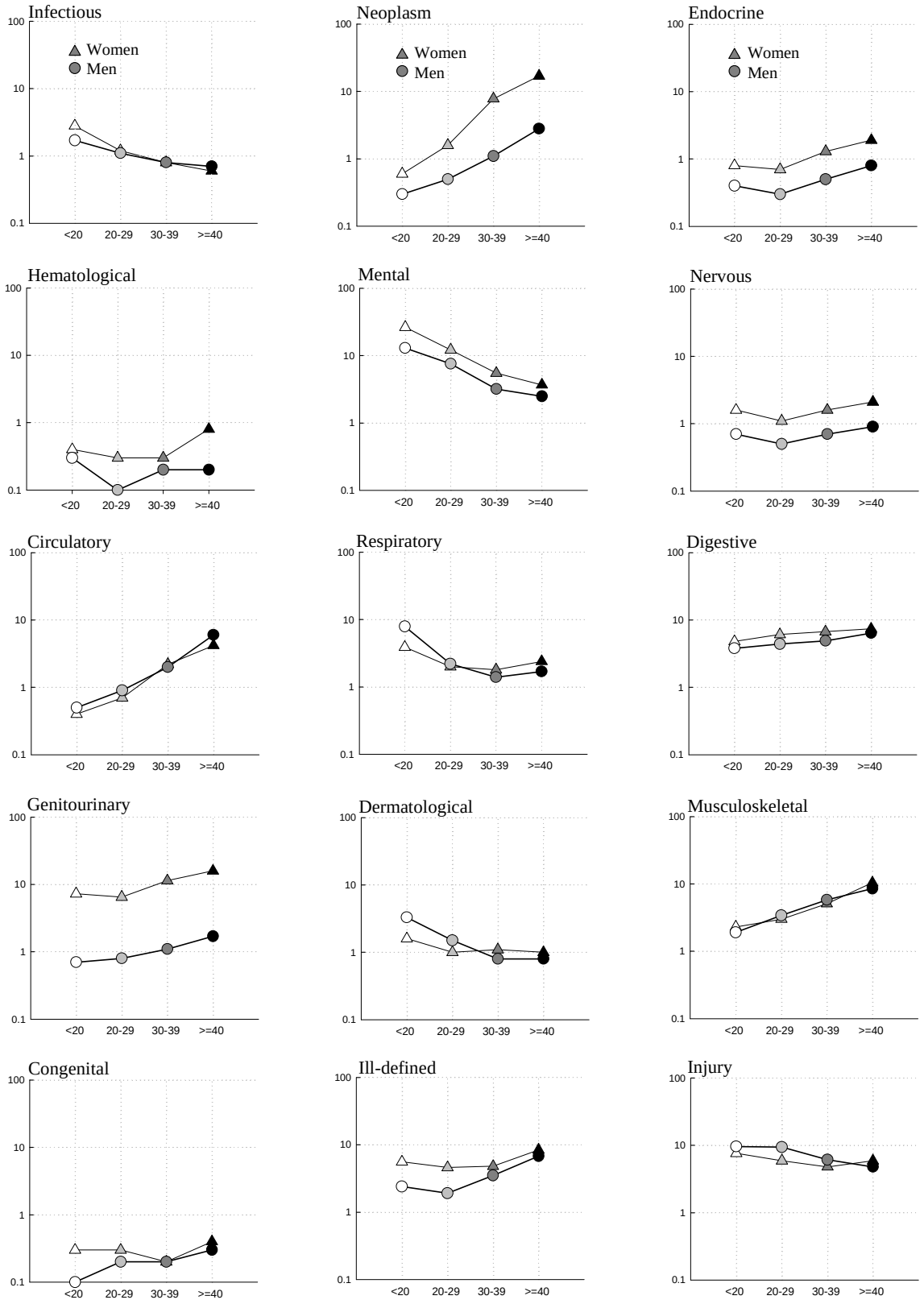


Figure 2. Rate* of hospitalizations, by major diagnostic categories, by age and gender, US Armed Forces, 2003.



*Rates expressed as hospitalizations per 1,000 person-years

Figure 3. Length of hospital stay, by major diagnostic category, US Armed Forces, 2003.

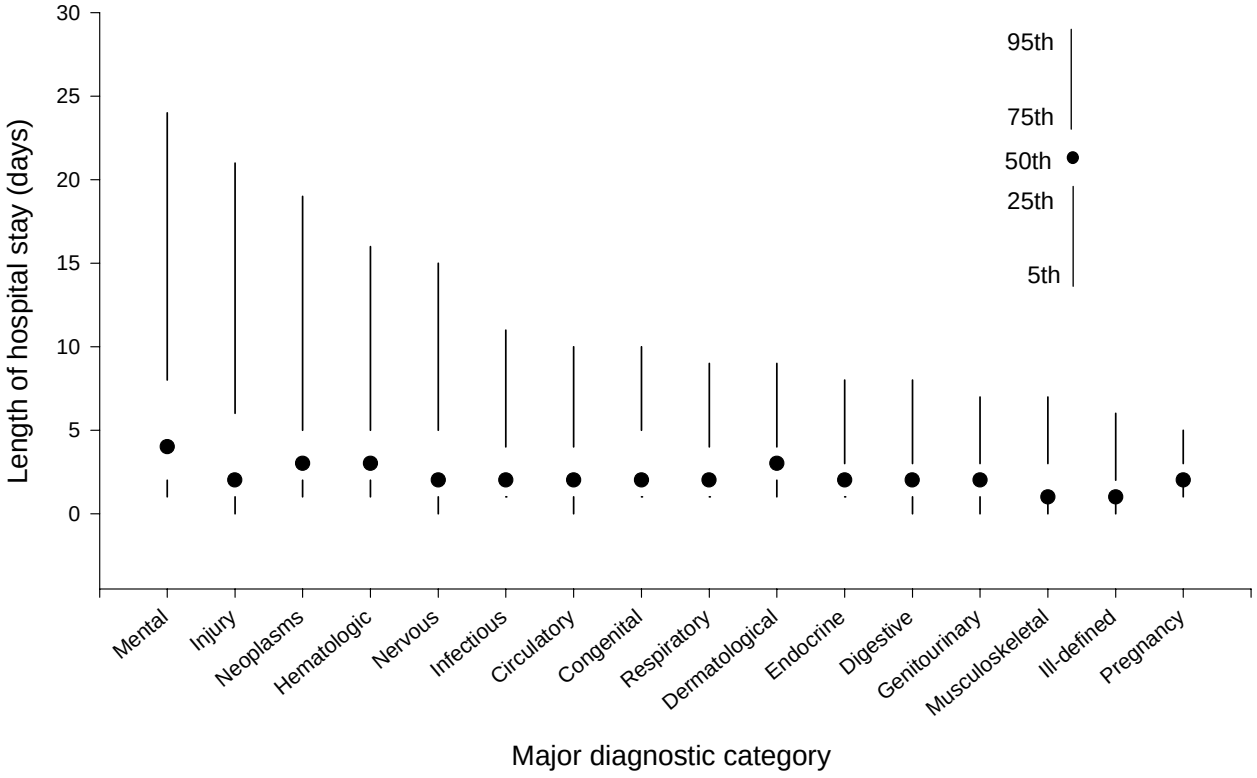


Figure 4. Length of hospital stay, by year, US Armed Forces, 1993-2003.

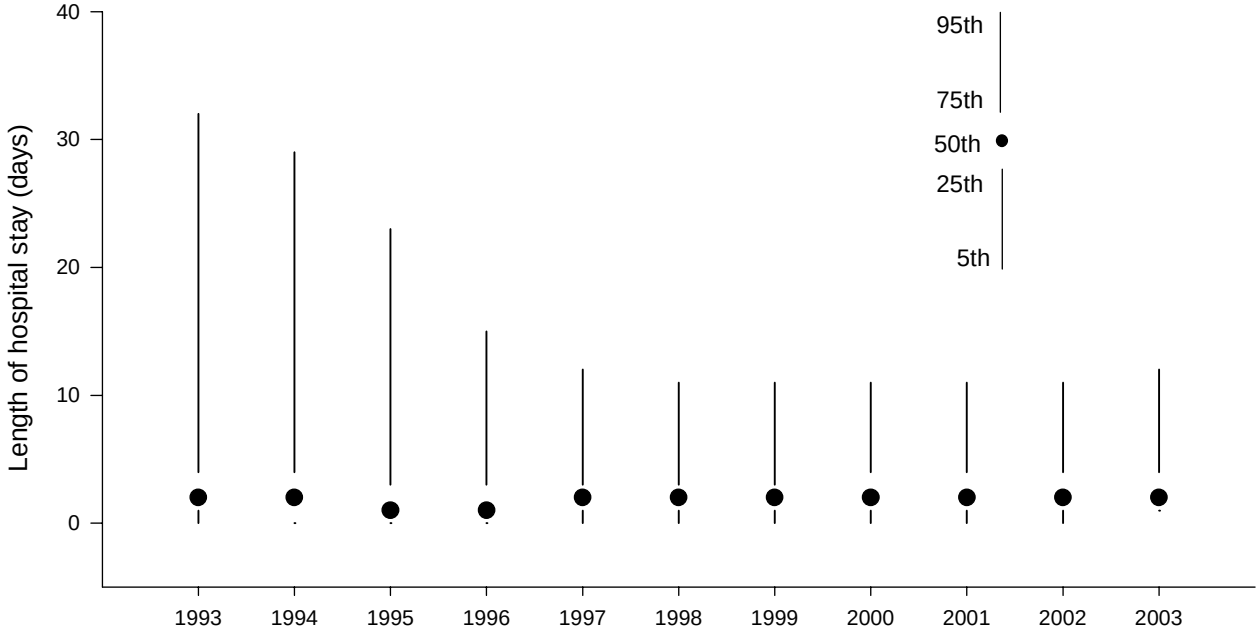


Table 2. Most frequent diagnoses during hospitalization, by major diagnostic category, males, US Armed Forces, 2003

Diagnostic category	No.	%	Diagnostic category	No.	%
Infectious and parasitic diseases (001-139)	1,203		**Digestive system (520 - 579)**	5,671	
Meningitis due to enterovirus	270	22.4	Acute appendicitis	1,496	26.4
Viral & chlamydial infection	155	12.9	Dentofacial anomalies, including malocclusion	547	9.6
Malaria	113	9.4	Diseases of esophagus	417	7.4
Intestinal infections due to other organisms	105	8.7	Inguinal hernia	387	6.8
Streptococcal sore throat and scarlatina	71	5.9	Other noninfective gastroenteritis and colitis	328	5.8
Neoplasms (140 - 239)	1,068		**Genitourinary system (580 - 629)**	1,179	
Cancer of testis	79	7.4	Calculus of kidney and ureter	491	41.6
Cancer of prostate	75	7.0	Other disorders of male genital organs	113	9.6
Cancer of brain	71	6.6	Acute renal failure	82	7.0
Cancer of thyroid gland	56	5.2	Urethral stricture	77	6.5
Other cancer of lymphoid and histiocytic tissue	49	4.6	Other disorders of kidney and ureter	75	6.4
Endocrine, nutrition, immunity (240 - 279)	509		**Pregnancy complications (630 - 679)**	-	-
Diabetes mellitus	191	37.5	-	-	-
Disorders of fluid, electrolyte and acid-base balance	164	32.2	-	-	-
Thyrotoxicosis with or without goiter	26	5.1	-	-	-
Nontoxic nodular goiter	24	4.7	-	-	-
Other disorders of pancreatic internal secretion	18	3.5	-	-	-
Hematologic disorders (280 - 289)	230		**Dermatological diseases (680 - 709)**	1,657	
Diseases of white blood cells	77	33.5	Other cellulitis and abscess	1,229	74.2
Other diseases of blood and blood-forming organs	44	19.1	Pilonidal cyst	135	8.1
Purpura and other hemorrhagic conditions	38	16.5	Cellulitis and abscess of finger and toe	101	6.1
Aplastic anemia	22	9.6	Other infections of skin/subcutaneous tissue	36	2.2
Other and unspecified anemias	17	44.7	Diseases of sebaceous glands	20	1.2
Mental disorders (290 - 319)	7,450		**Musculoskeletal system (710 - 739)**	5,401	
Adjustment reaction	2,431	32.6	Intervertebral disc disorders	1,607	29.8
Affective psychoses	1,678	22.5	Internal derangement of knee	823	15.2
Alcohol dependence syndrome	683	9.2	Other derangement of joint	554	10.3
Neurotic disorders	490	6.6	Other disorders of bone and cartilage	389	7.2
Depressive disorder, nec	467	6.3	Other and unspecified disorders of back	295	5.5
Nervous system (320 - 389)	780		**Congenital anomalies (740 - 759)**	256	
Migraine	110	14.1	Other congenital anomalies of circulatory system	52	20.3
Epilepsy	54	6.9	Other congenital musculoskeletal anomalies	46	18.0
Other and unspecified disorders	43	5.5	Congenital anomalies of urinary system	36	14.1
Other conditions of brain	42	5.4	Bulbus cordis and cardiac septal closure	20	7.8
Mononeuritis of upper limb and mononeuritis	35	4.5	Other congenital anomalies of digestive system	16	6.3
Circulatory system (390 - 459)	2,067		**Ill-defined conditions (780 - 799)**	3,536	
Cardiac dysrhythmias	420	20.3	Symptoms involving respiratory system & chest	1,428	40.4
Other forms of chronic ischemic heart disease	244	11.8	General symptoms	908	25.7
Acute myocardial infarction	231	11.2	Other symptoms involving abdomen and pelvis	455	12.9
Hemorrhoids	111	5.4	Other ill-defined & unknown causes of morbidity	242	6.8
Acute pulmonary heart disease	108	5.2	Symptoms involving head and neck	159	4.5
Respiratory system (460 - 519)	2,822		**Injury and poisoning (800 - 999)**	9,605	
Pneumonia, organism unspecified	1,088	38.6	Other complications of procedures, nec	652	6.8
Pneumothorax	188	6.7	Fracture of ankle	588	6.1
Peritonsillar abscess	177	6.3	Fracture of face bones	504	5.2
Asthma	161	5.7	Fracture of tibia and fibula	420	4.4
Acute pharyngitis	130	4.6	Fracture of radius and ulna	327	3.4

Table 3. Most frequent diagnoses during hospitalization, by major diagnostic category, females, US Armed Forces, 2003

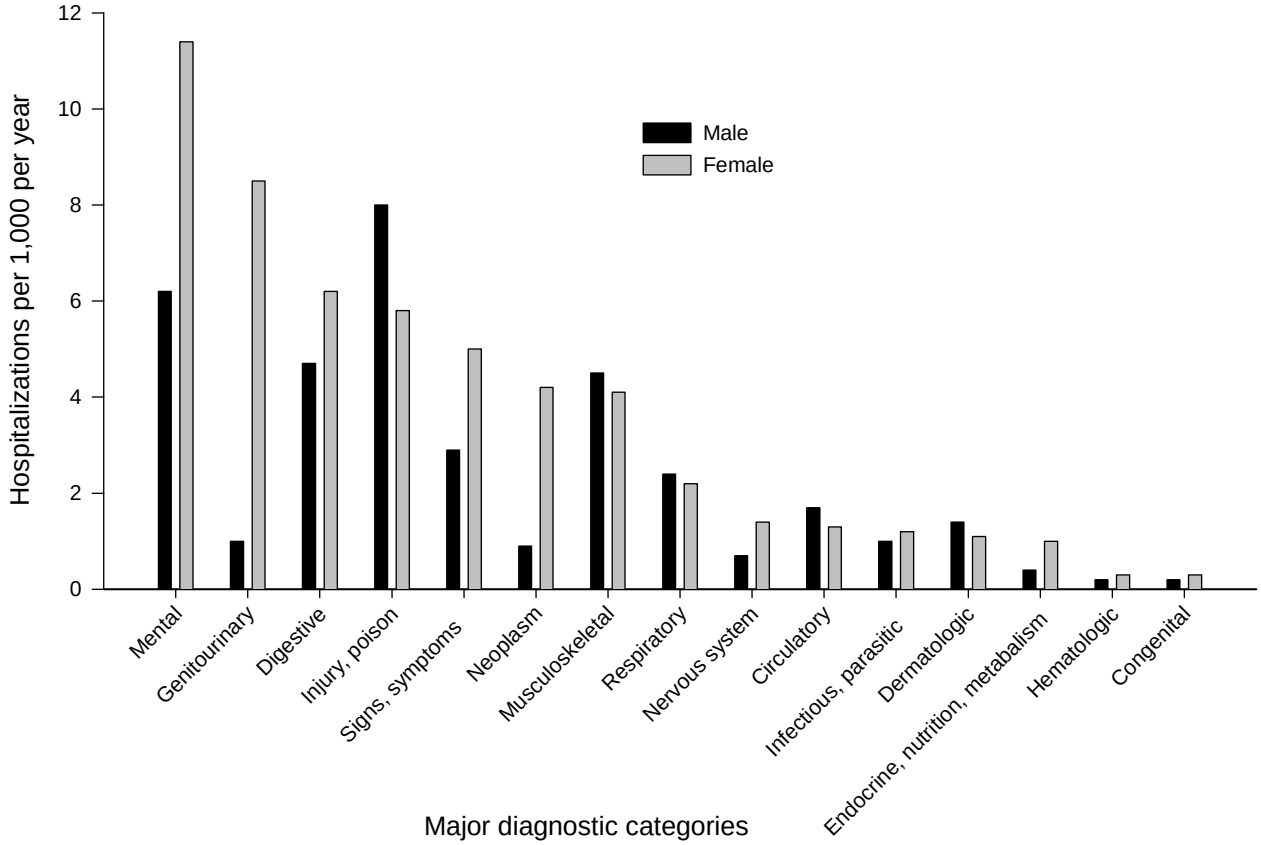
Diagnostic category	No.	%	Diagnostic category	No.	%
Infectious and parasitic diseases (001-139)	252		**Digestive system (520 - 579)**	1,311	
Meningitis due to enterovirus	63	25.0	Acute appendicitis	221	16.9
Viral & chlamydial infection	50	19.8	Dentofacial anomalies, including malocclusion	204	15.6
Intestinal infections due to other organisms	39	15.5	Cholelithiasis	149	11.4
Streptococcal sore throat and scarlatina	14	5.6	Other noninfective gastroenteritis and colitis	102	7.8
Ill-defined intestinal infections	11	4.4	Diseases of pancreas	71	5.4
Neoplasms (140 - 239)	891		**Genitourinary system (580 - 629)**	1,799	
Uterine leiomyoma	471	52.9	Pain & other symptoms	230	12.8
Benign neoplasm of ovary	65	7.3	Infections of kidney	219	12.2
Cancer of thyroid gland	45	5.1	Noninflammatory disorder ovary, fallopian tube	210	11.7
Cancer of female breast	35	3.9	Menstrual disorder, other abnormal bleeding	186	10.3
Other benign neoplasm of uterus	24	2.7	Other disorders of breast	183	10.2
Endocrine, nutrition, immunity (240 - 279)	204		**Pregnancy complications (630 - 679)**	17,385	
Disorders of fluid, electrolyte & acid-base balance	64	31.4	Trauma to perineum and vulva during delivery	4,082	23.5
Nontoxic nodular goiter	26	12.7	Delivery in a completely normal case	1,487	8.6
Obesity and other hyperalimentation	22	10.8	Abnormality of forces of labor	1,189	6.8
Thyrotoxicosis with or without goiter	20	9.8	Early or threatened labor	1,116	6.4
Diabetes mellitus	13	6.4	Other current conditions	979	5.6
Hematologic disorders (280 - 289)	73		**Dermatological diseases (680 - 709)**	223	
Diseases of white blood cells	14	19.2	Other cellulitis and abscess	107	48.0
Other diseases of blood/blood-forming organs	14	19.2	Other hypertrophic and atrophic conditions of skin	32	14.3
Iron deficiency anemias	13	17.8	Pilonidal cyst	26	11.7
Purpura and other hemorrhagic conditions	12	16.4	Other disorders of skin and subcutaneous tissue	21	9.4
Other and unspecified anemias	11	15.1	Cellulitis and abscess of finger and toe	6	2.7
Mental disorders (290 - 319)	2,406		**Musculoskeletal system (710 - 739)**	859	
Adjustment reaction	849	35.3	Intervertebral disc disorders	211	24.6
Affective psychoses	679	28.2	Internal derangement of knee	87	10.1
Depressive disorder, nec	198	8.2	Other disorders of bone and cartilage	81	9.4
Neurotic disorders	168	7.0	Other derangement of joint	68	7.9
Personality disorders	149	6.2	Other and unspecified disorders of back	64	7.5
Nervous system (320 - 389)	291		**Congenital anomalies (740 - 759)**	61	
Migraine	112	38.5	Other congenital musculoskeletal anomalies	8	13.1
Epilepsy	19	6.5	Congenital anomalies of urinary system	7	11.5
Other conditions of brain	16	5.5	Certain congenital musculoskeletal deformities	7	11.5
Multiple sclerosis	13	4.5	Other congenital anomalies of limbs	7	11.5
Other and unspecified disorders	13	4.5	Anomalies of bulbus cordis/cardiac septal closure	5	8.2
Circulatory system (390 - 459)	274		**Ill-defined conditions (780 - 799)**	1,069	
Cardiac dysrhythmias	46	16.8	Other symptoms involving abdomen and pelvis	361	33.8
Acute pulmonary heart disease	36	13.1	General symptoms	203	19.0
Other venous embolism and thrombosis	25	9.1	Symptoms involving respiratory system & chest	182	17.0
Essential hypertension	19	6.9	Other ill-defined & unknown causes of morbidity	147	13.8
Hemorrhoids	16	5.8	Symptoms involving head and neck	54	5.1
Respiratory system (460 - 519)	462		**Injury and poisoning (800 - 999)**	1,228	
Pneumonia, organism unspecified	99	21.4	Other complications of procedures, nec	153	12.5
Asthma	81	17.5	Fracture of ankle	99	8.1
Acute pharyngitis	44	9.5	By analgesics, antipyretics, antirheumatics	85	6.9
Peritonsillar abscess	29	6.3	Complications to certain specified procedures	53	4.3
Chronic disease of tonsils and adenoids	25	5.4	Fracture of tibia and fibula	48	3.9

Table 4. Injury hospitalizations, by causal agent,* US Armed Forces, 2003.

Cause	No.	Percent
Unintentional		
Unknown	2,630	24.3
Falls and miscellaneous	1,834	16.9
Land transport	1,282	11.8
Complications of medical care	1,135	10.5
Athletics	833	7.7
Guns, explosives, except in war	401	3.7
Machinery, tools	383	3.5
Poisons and fire	377	3.5
Air transport	315	2.9
Environmental factors	268	2.5
Water transport	43	0.4
Intentional		
War	752	6.9
Violence	310	2.9
Self-inflicted	270	2.5

*Causal agents were determined by STANAG codes.

Figure 5. Hospitalizations (excluding pregnancy-related) per 1,000 per year, by major diagnostic categories, by gender, active component, US Armed Forces, 2003.



Ambulatory Visits among Active Component Members, US Armed Forces, 2003

This report documents frequencies, rates, trends, and characteristics of ambulatory visits of active component members of the US Armed Forces during 2003 (as documented by routine, standardized, automated reports of the Military Health System). For this summary, ambulatory visits were categorized based on the first three digits of first listed ("primary") diagnosis codes (International Classification of Diseases, 9th revision, clinical modifications) reported on automated records of ambulatory visits of U.S. servicemembers. Records of ambulatory visits not documented with automated records (e.g., during deployments, field training exercises, shipboard) are not included. All records for the report were included in the Defense Medical Surveillance System

Frequencies, rates, and trends. During 2003, there were 11,635,02 reports of ambulatory visits of active component servicemembers (table 1). The crude rate was 8,240.3 visits per 1,000 servicemembers per year; thus, the average number of ambulatory visits per servicemember during 2003 was 8.2. The crude rate in 2003 was approximately 3.7% higher than in 2002 (figure 1).

Distribution of visits, by diagnostic categories. The general distribution of ambulatory visits by major diagnostic category was similar in 2003 compared to recent years (table 1). As in prior years, the most ambulatory visits (42.1% of the total) by far were for "other contact with health services." This category (indicated by "V" codes of the ICD-9-CM) includes health care not related to current illnesses or injuries (e.g., prophylactic immunizations, management of normal pregnancies, routine physical examinations, health promotion counseling). Of all other major categories, "musculoskeletal disorders" (12.5% of total), "signs, symptoms, and ill-defined conditions" (7.5% of total), and "injuries and poisonings" (7.3% of total) accounted for the most ambulatory visits among servicemembers (table 1). Of note, since 2001, reports of "musculoskeletal disorders" and "injuries and poisonings" significantly declined (-12.5% and -16.3%, respectively), while reports of "signs, symptoms, and ill-defined conditions" sharply increased (+17.5%) (table 1).

Of all 3-digit level diagnoses, the most frequently reported among males were "disorders of refraction and accommodation" (n=273,359);

Table 1. Ambulatory visits, by major diagnostic categories, US Armed Forces, 1999, 2001, and 2003.

	1999		2001		2003	
Major diagnostic category (ICD-9-CM)	**Number**	**(Rank)**	**Number**	**(Rank)**	**Number**	**(Rank)**
Other contact with health services	3,713,634	(1)	4,167,567	(1)	4,903,021	(1)
Musculoskeletal	1,425,030	(2)	1,668,060	(2)	1,458,962	(2)
Ill-defined	482,375	(6)	744,385	(5)	874,460	(3)
Injury	844,251	(3)	1,012,752	(3)	847,341	(4)
Respiratory	656,284	(4)	746,938	(4)	717,425	(5)
Nervous	536,647	(5)	655,012	(6)	695,905	(6)
Mental	446,429	(7)	568,817	(7)	584,675	(7)
Dermatological	266,578	(9)	295,984	(8)	312,866	(8)
Infectious	292,765	(8)	291,822	(9)	310,707	(9)
Genitourinary	206,183	(11)	236,843	(10)	241,743	(10)
Digestive	210,841	(10)	224,413	(11)	227,360	(11)
Circulatory	116,384	(12)	129,415	(12)	129,117	(12)
Endocrine	108,667	(13)	122,123	(13)	120,437	(13)
Pregnancy	43,483	(15)	66,746	(15)	87,834	(14)
Neoplasms	74,076	(14)	84,933	(14)	86,321	(15)
Congenital	15,856	(16)	21,201	(16)	21,100	(16)
Hematologic	10,586	(17)	16,132	(17)	15,746	(17)

"unspecified disorders of joint(s)" (n=270,799) and "back" (n=227,401); "other ill-defined/unknown causes of morbidity/mortality" (n=207,219); "acute upper respiratory infection of multiple/unspecified site" (n=197,613); "peripheral enthesopathies and allied syndromes" (n=106,149); and "alcohol dependence syndrome" (n=99,653) (tables 2).

Among females, the most frequently reported 3-digit level diagnoses were "other/unspecified disorders of joint(s)" (n=82,652) and "back" (n=69,531); "other ill-defined/unknown causes of morbidity/mortality" (n=79,539); "disorders of refraction and accommodation" (n=72,464); "acute upper respiratory infection of multiple/unspecified site" (n= 62,183); "other symptoms involving abdomen/pelvis" (n=40,035); and "adjustment reaction" (n=39,869) (table 3).

Approximately three-fourths (73.5%) of all ambulatory visits were among males. However, the crude rate among females (rate, all causes: 14,540 per 1,000 p-yrs) was approximately twice as high as among males (rate, all causes: 7,130 per 1,000 p-yrs); and females had higher rates than males of diagnoses in every major category (figure 2).

In most major diagnostic categories, relationships between ambulatory visit rates and age were similar among males and females (figure 2). However, rates of diagnoses of "genitourinary" disorders slightly declined with age among females but steadily increased with age among males. Of note, among both males and females, rates of diagnoses of "infectious and parasitic" disorders steadily declined, while rates of "neoplasms," "circulatory disorders," and "endocrine, metabolic, and nutritional" disorders sharply increased with age (figure 2).

Finally, dispositions of patients after ambulatory visits provide insights into the relative severities and operational impacts of various conditions. After approximately 85% of all ambulatory visits for current illnesses and injuries (e.g., excluding medical examinations, immunizations, counselling), servicemembers returned to duty without limitations. However, approximately one of every nine (11.3%) illness and injury-related visits resulted in limited duty dispositions; and approximately one of every 30 (3.2%) visits resulted in dispositions of "quarters" for convalescence.

Visits for "musculoskeletal disorders" (22.5%) and "injuries and poisonings" (22.2%) were the most likely to result in limited duty restrictions; in turn, they also accounted for the largest numbers of limited duty restrictions (n=279,063 and 152,747, respectively) (figure 3). Visits for "digestive" (11.6%) and "infectious and parasitic" (10.0%) disorders were the most likely to result in dispositions to quarters; however, the most dispositions to quarters were related to "respiratory disorders" (n=54,579) (figure 3).

Data analysis by Barbara Nagaraj, MPH, Analysis Group, Army Medical Surveillance Activity

Figure 1. Rate of ambulatory visits by calendar year, US Armed Forces, 1998-2003.

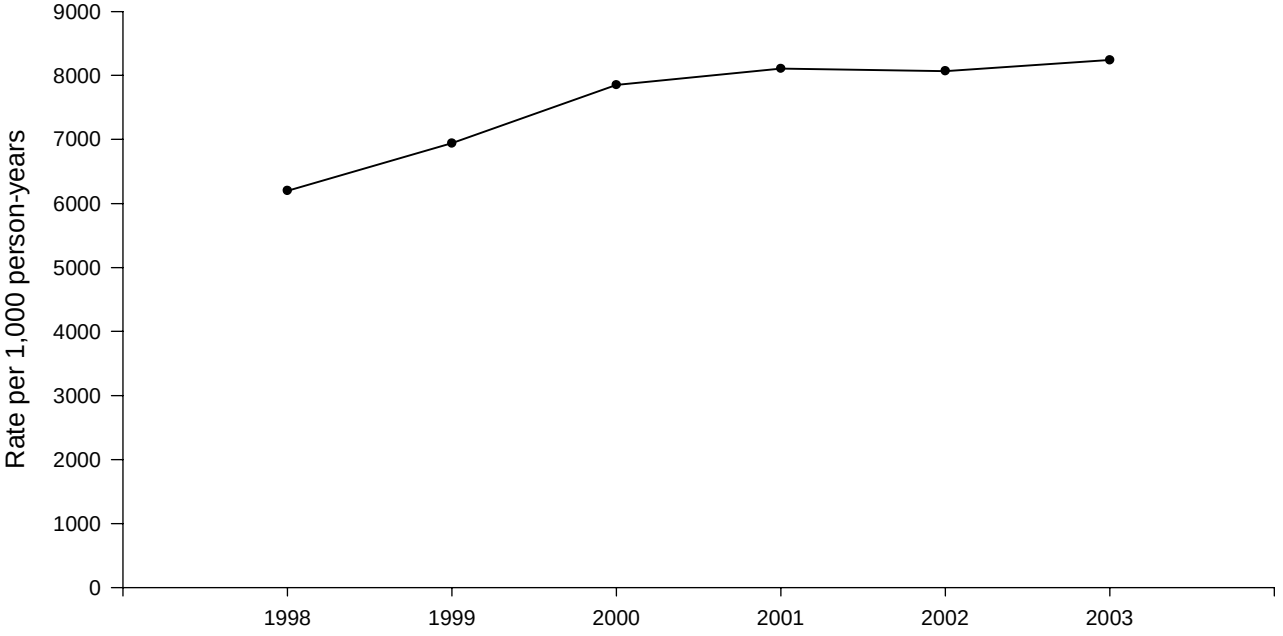
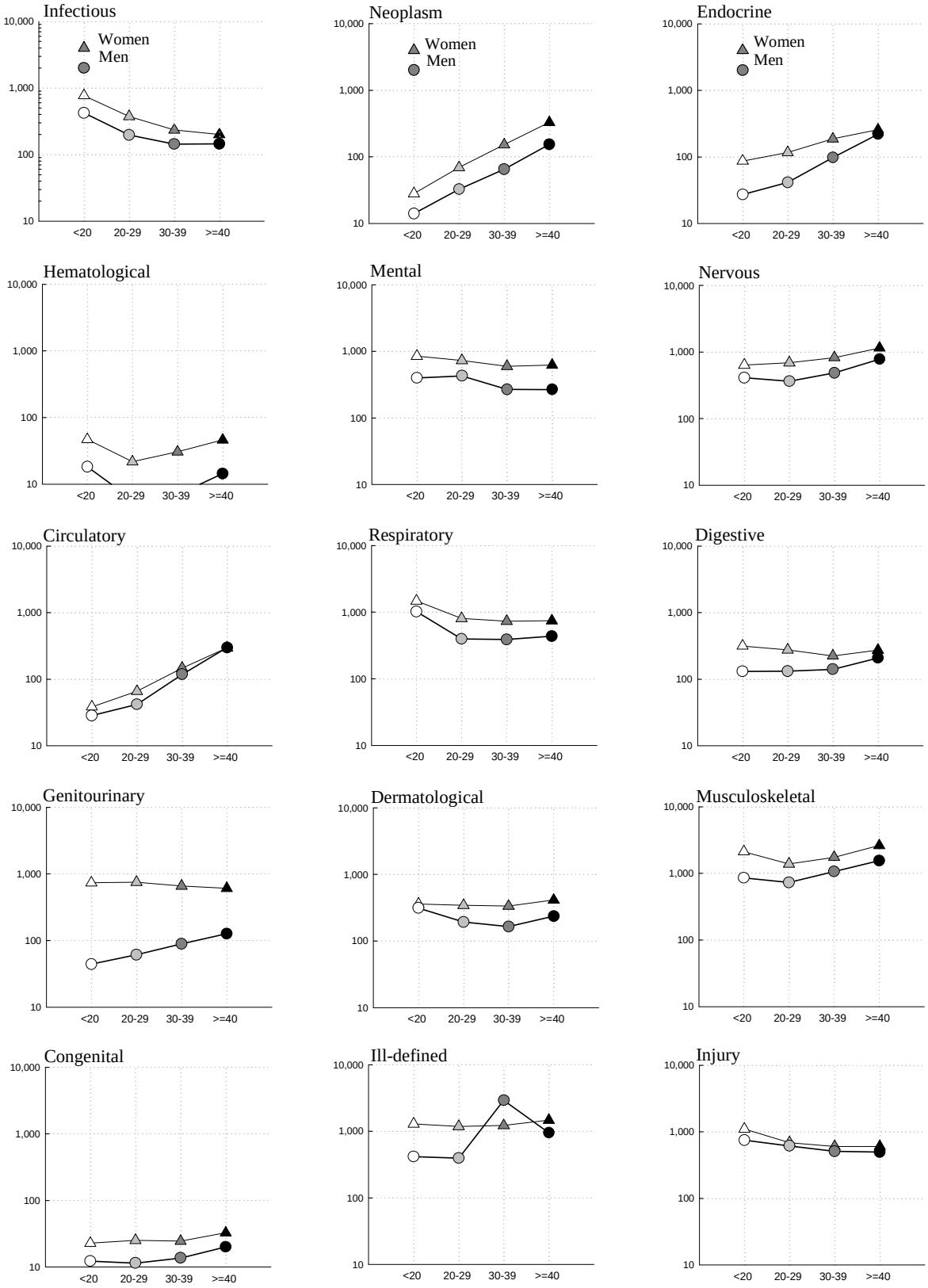


Figure 2. Rate* of ambulatory visits, by major diagnostic category, by age and gender, US Armed Forces, 2003.



*Rates expressed as ambulatory visits per 1,000 person-years

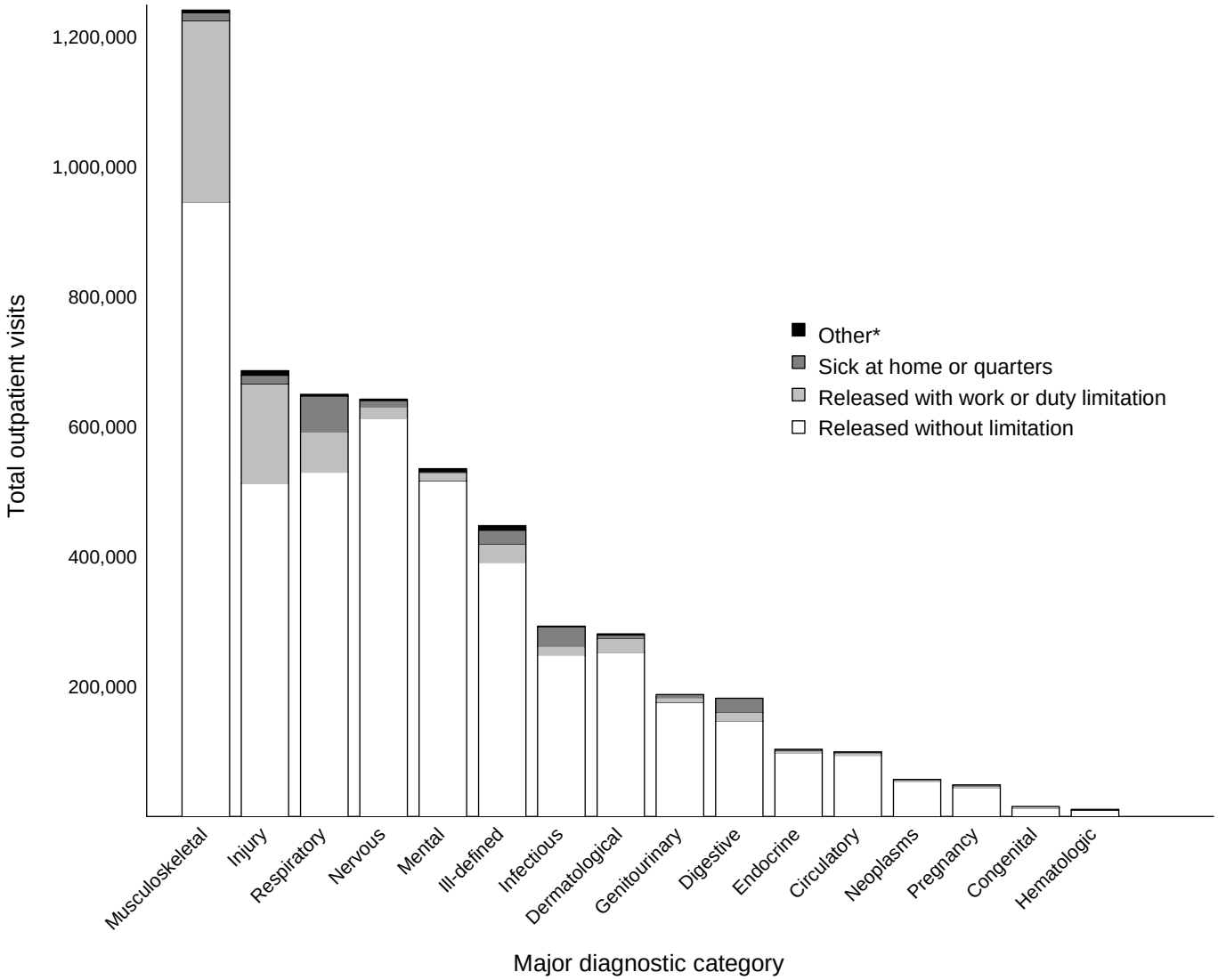
Table 2. Most frequent diagnoses during ambulatory visits, by major diagnostic category, males, US Armed Forces, 2003

Diagnostic category	No.	%	Diagnostic category	No.	%
Infectious and parasitic diseases (001-139)	233,055		**Digestive system (520 - 579)**	170,718	
Viral & chlamydial infection cond classed elsewhere	83,121	35.7	Other noninfective gastroenteritis and colitis	45,021	26.4
Other diseases due to viruses and chlamydiae	39,993	17.2	Diseases of esophagus	29,495	17.3
Dermatophytosis	27,177	11.7	Inguinal hernia	13,457	7.9
Intestinal infections due to other organisms	10,429	4.5	Gastritis and duodenitis	10,682	6.3
Streptococcal sore throat and scarlatina	9,975	4.3	Other hernia of abdominal cavity w/o obstruction	7,586	4.4
Neoplasms (140 - 239)	63,790		**Genitourinary system (580 - 629)**	89,512	
Benign neoplasm of skin	13,752	21.6	Calculus of kidney and ureter	14,427	16.1
Lipoma	7,942	12.5	Other disorders of male genital organs	13,405	15.0
Neoplasm of uncertain behavior	5,947	9.3	Other disorders of urethra and urinary tract	12,538	14.0
Other cancer of lymphoid and histiocytic tissue	3,140	4.9	Orchitis and epididymitis	9,739	10.9
Benign neoplasm of other parts of digestive system	2,836	4.4	Disorders of penis	5,912	6.6
Endocrine, nutrition, immunity (240 - 279)	90,415		**Pregnancy complications (630 - 679)**	-	-
Disorders of lipoid metabolism	28,850	31.9	-	-	-
Obesity and other hyperalimentation	20,093	22.2	-	-	-
Diabetes mellitus	16,763	18.5	-	-	-
Disorders of fluid, electrolyte and acid-base balance	5,933	6.6	-	-	-
Gout	5,267	5.8	-	-	-
Hematologic disorders (280 - 289)	9,753		**Dermatological diseases (680 - 709)**	238,809	
Hereditary hemolytic anemias	2,341	24.0	Contact dermatitis and other eczema	40,649	17.0
Other and unspecified anemias	1,797	18.4	Other cellulitis and abscess	34,326	14.4
Other diseases of blood and blood-forming organs	1,635	16.8	Diseases of sebaceous glands	33,215	13.9
Diseases of white blood cells	966	9.9	Diseases of hair and hair follicles	27,057	11.3
Purpura and other hemorrhagic conditions	914	9.4	Diseases of nail	15,972	6.7
Mental disorders (290 - 319)	435,955		**Musculoskeletal system (710 - 739)**	1,109,161	
Alcohol dependence syndrome	99,653	22.9	Other and unspecified disorders of joint	270,799	24.4
Nondependent abuse of drugs	87,673	20.1	Other and unspecified disorders of back	227,401	20.5
Adjustment reaction	76,594	17.6	Peripheral enthesopathies and allied syndromes	106,149	9.6
Neurotic disorders	44,884	10.3	Other disorders of soft tissues	87,070	7.9
Affective psychoses	40,966	9.4	Internal derangement of knee	58,375	5.3
Nervous system (320 - 389)	535,727		**Congenital anomalies (740 - 759)**	15,694	
Disorders of refraction and accommodation	273,359	51.0	Certain congenital musculoskeletal deformities	4,518	28.8
Disorders of conjunctiva	33,268	6.2	Other congenital musculoskeletal anomalies	2,550	16.2
Hearing loss	30,409	5.7	Other congenital anomalies of limbs	1,938	12.3
Migraine	18,054	3.4	Congenital anomalies of the integument	1,383	8.8
Suppurative and unspecified otitis media	17,128	3.2	Congenital anomalies of urinary system	804	5.1
Circulatory system (390 - 459)	107,652		**Ill-defined conditions (780 - 799)**	614,333	
Essential hypertension	49,914	46.4	Other ill-defined & unknown causes of morbidity	207,219	33.7
Hemorrhoids	12,464	11.6	Symptoms involving respiratory system & chest	92,189	15.0
Cardiac dysrhythmias	8,944	8.3	General symptoms	86,927	14.1
Diseases of capillaries	4,691	4.4	Other symptoms involving abdomen and pelvis	50,988	8.3
Other forms of chronic ischemic heart disease	4,216	3.9	Symptoms involving head and neck	43,148	7.0
Respiratory system (460 - 519)	537,418		**Injury and poisoning (800 - 999)**	698,529	
Acute upper respiratory infection of multiple sites	197,613	36.8	Sprains and strains of ankle and foot	74,184	10.6
Allergic rhinitis	68,718	12.8	Sprains and strains of knee and leg	63,464	9.1
Acute pharyngitis	57,139	10.6	Sprains and strains of other unspecified & back	55,351	7.9
Acute sinusitis	36,717	6.8	Injury, other and unspecified	39,792	5.7
Acute bronchitis and bronchiolitis	31,582	5.9	Sprains and strains of shoulder and upper arm	32,162	4.6

Table 3. Most frequent diagnoses during ambulatory visits, by major diagnostic category, females, US Armed Forces, 2003

Diagnostic category	No.	%	Diagnostic category	No.	%
Infectious and parasitic diseases (001-139)	77,634		**Digestive system (520 - 579)**	56,616	
Viral & chlamydial infection classed elsewhere	29,086	37.5	Other noninfective gastroenteritis and colitis	19,505	34.5
Other diseases due to viruses and chlamydia	9,423	12.1	Functional digestive disorders, nec	6,928	12.2
Candidiasis	8,321	10.7	Diseases of esophagus	6,858	12.1
Dermatophytosis	5,131	6.6	Gastritis and duodenitis	4,490	7.9
Intestinal infections due to other organisms	4,187	5.4	Dentofacial anomalies, including malocclusion	1,889	3.3
Neoplasms (140 - 239)	22,517		**Genitourinary system (580 - 629)**	152,210	
Benign neoplasm of skin	4,467	19.8	Other disorders of urethra and urinary tract	23,425	15.4
Uterine leiomyoma	2,944	13.1	Noninflammatory disorders of cervix	21,651	14.2
Cancer of female breast	2,914	12.9	Inflammatory disease of cervix, vagina and vulva	19,624	12.9
Neoplasm of uncertain behavior	1,619	7.2	Menstrual disorder, other abnormal bleeding	18,219	12.0
Lipoma	1,108	4.9	Pain & other symptoms associated with genitalia	18,142	11.9
Endocrine, nutrition, immunity (240 - 279)	30,007		**Pregnancy complications (630 - 679)**	87,271	
Obesity and other hyperalimentation	10,248	34.2	Early or threatened labor	11,487	13.2
Acquired hypothyroidism	4,127	13.8	Other current conditions complicating pregnancy	10,767	12.3
Disorders of fluid, electrolyte, acid-base balance	2,924	9.7	Other complications of pregnancy, nec	9,146	10.5
Disorders of lipoid metabolism	2,621	8.7	Hemorrhage in early pregnancy	7,586	8.7
Diabetes mellitus	2,115	7.0	Fetal & placental problems affecting management	5,321	6.1
Hematologic disorders (280 - 289)	5,981		**Dermatological diseases (680 - 709)**	74,026	
Other and unspecified anemias	1,723	28.8	Diseases of sebaceous glands	14,892	20.1
Iron deficiency anemias	1,574	26.3	Contact dermatitis and other eczema	13,126	17.7
Other diseases of blood/blood-forming organs	619	10.3	Other disorders of skin and subcutaneous tissue	6,705	9.1
Other deficiency anemias	554	9.3	Other cellulitis and abscess	6,165	8.3
Hereditary hemolytic anemias	548	9.2	Diseases of hair and hair follicles	4,995	6.7
Mental disorders (290 - 319)	148,656		**Musculoskeletal system (710 - 739)**	349,664	
Adjustment reaction	39,869	26.8	Other and unspecified disorders of joint	82,652	23.6
Affective psychoses	26,781	18.0	Other and unspecified disorders of back	69,531	19.9
Neurotic disorders	21,004	14.1	Other disorders of soft tissues	34,240	9.8
Depressive disorder, nec	18,547	12.5	Peripheral enthesopathies & allied syndromes	28,225	8.1
Alcohol dependence syndrome	11,209	7.5	Nonallopathic lesions, nec	20,947	6.0
Nervous system (320 - 389)	159,986		**Congenital anomalies (740 - 759)**	5,399	
Disorders of refraction and accommodation	72,464	45.3	Certain congenital musculoskeletal deformities	1,273	23.6
Migraine	19,953	12.5	Congenital anomalies of the integument	1,057	19.6
Disorders of conjunctiva	10,482	6.6	Other congenital musculoskeletal anomalies	757	14.0
Mononeuritis of upper limb/mononeuritis multiplex	6,616	4.1	Other congenital anomalies of limbs	657	12.2
Suppurative and unspecified otitis media	5,301	3.3	Congenital anomalies of genital organs	231	4.3
Circulatory system (390 - 459)	21,446		**Ill-defined conditions (780 - 799)**	260,023	
Essential hypertension	6,926	32.3	Other ill-defined & unknown causes of morbidity	79,539	30.6
Hemorrhoids	2,925	13.6	Other symptoms involving abdomen and pelvis	40,035	15.4
Diseases of capillaries	2,414	11.3	Symptoms involving respiratory system	27,312	10.5
Cardiac dysrhythmias	2,127	9.9	Symptoms involving head and neck	23,255	8.9
Varicose veins of lower extremities	1,251	5.8	General symptoms	22,419	8.6
Respiratory system (460 - 519)	179,980		**Injury and poisoning (800 - 999)**	148,667	
Acute upper respiratory infection unspec site	62,183	34.5	Sprains and strains of ankle and foot	16,827	11.3
Allergic rhinitis	26,851	14.9	Sprains and strains of unspecified back	16,711	11.2
Acute pharyngitis	19,982	11.1	Sprains and strains of knee and leg	14,203	9.6
Acute sinusitis	15,684	8.7	Certain adverse effects, nec	7,406	5.0
Asthma	11,207	6.2	Injury, other and unspecified	7,185	4.8

Figure 3. Dispositions after ambulatory visits, by major categories, US Armed Forces, 2003.



*Other includes immediate referral, left without being seen, left against medical advice, admitted, and expired.

Estimates of Absolute and Relative Morbidity Burdens Attributable to Various Illnesses and Injuries, US Armed Forces, 2003

Priorities and resources to counter specific illnesses and injuries depend on perceptions regarding their relative importance. This report is the fourth in a series of *MSMR* articles[1-3] that estimate morbidity burdens attributable to various illnesses and injuries among members of the US Armed Forces.

Several classification systems/measures have been developed to quantify public health burdens attributable to various illnesses and injuries in defined populations and settings. Not surprisingly, different classification systems/measures lead to different rankings of illness and injury-specific morbidity burdens. For example, in a given population and setting, the illnesses and injuries that account for the most hospitalizations may differ from those that account for the most outpatient encounters; and the illnesses and injuries that account for the most medical encounters overall may differ from those that affect the most individuals. Thus, in a given population and setting, the classification system or measure that is used to quantify illness and injury-specific morbidity burdens determines, to some extent, conclusions regarding the relative importance of various conditions.

Methods. For this report (as for previous *MSMR* reports regarding the same subject), we modified the classification system used for the Global Burden of Disease Study.[4] In general, the system groups ICD-9-CM coded diagnoses that have common pathophysiologic or etiologic bases and/or significant international health policymaking importance. Our modifications included breaking out injuries (as for the monthly installation-specific injury reports that are produced by AMSA[5]) and other diagnoses (e.g., mental disorders) that have particular military importance. For our analysis, we combined servicemembers' inpatient and outpatient experiences for 2003 to estimate the numbers of medical encounters for, and the numbers of servicemembers affected by, each illness and injury-specific subgroup. We also quantified hospital bed-days associated with diagnostic subgroups as an indicator of their relative severities and associated health care costs.

Medical encounters, overall. "All other signs and symptoms," upper respiratory infections, and injuries of the back/abdomen were the leading sources of medical encounters among active duty servicemembers in 2003. Disorders of refraction/accommodation, "all other musculoskeletal disorders," and knee injuries were the next leading sources of medical encounters. Half (50.0%) of all medical encounters during the year were attributable to the ten conditions that accounted for the most encounters. In relation to broad categories, injuries and poisonings, signs and symptoms, mental disorders, and diseases of sense organs (e.g., vision abnormalities) accounted for the most medical encounters.

Individuals affected. More servicemembers received medical care for upper respiratory infections than any other condition. "All other signs and symptoms," disorders of refraction and accommodation, injuries involving the back/abdomen, and "all other musculoskeletal diseases" affected the next highest numbers of servicemembers. In relation to broad categories, injuries and poisonings, signs and symptoms, diseases of sense organs (e.g., vision abnormalities), and respiratory infections affected the highest numbers of servicemembers.

Hospital bed-days. During 2003, deliveries of newborn infants and complications of pregnancy accounted for the first and third most hospital bed-days, respectively. Mood disorders, adjustment disorders, injuries of the head and neck, and substance abuse disorders accounted for the second, fourth, fifth, and sixth most hospital bed-days, respectively. During the year, more than half (51.9%) of all hospital bed-days were attributable to the ten conditions that accounted for the most hospital bed-days. In relation to broad categories, injuries and poisonings, mental disorders, and pregnancies and deliveries accounted for the most bed-days.

Relationships between morbidity burden indicators. In general, there was a strong correlation between the number of individuals affected by a condition and the number of medical encounters attributable to the condition (linear regression, total medical encounters = 1.8 x individuals affected, R^2=0.90). In contrast, the number of hospital bed-days attributable to a condition was not strongly correlated with either the number of individuals affected by or the number of medical encounters attributable to the condition. Thus, in the US military, relatively unique insights into morbidity burdens may be gained by assessing (1) hospital bed-days attributable to particular conditions; and (2) either the number of individuals affected by or the total numbers of medical encounters attributable to conditions.

Editorial comment. Illnesses and injuries are "burdens" to the US Armed Forces to the extent that they degrade the health, fitness, and operational capabilities of servicemembers and consume resources for diagnosis, treatment, rehabilitation, and disability compensation. To some extent, prevention priorities (and associated resources) should target illnesses and injuries that account for the largest morbidity burdens.

As in recent years, the summaries presented here document that estimates of "morbidity burdens" attributable to various illnesses and injuries among US servicemembers vary based on the criteria used for grouping diagnoses and the methods used for quantifying burdens; and relatively few illnesses and injuries account for most of the morbidity that affects servicemembers, regardless of the metric used to measure it.

Similar to experiences of past years, in this summary, mental disorders and pregnancy-related conditions accounted for approximately 40% of all hospital bed days but only 10.2% of total medical encounters. Thus, based on hospital usage alone, these categories would be considered the major sources of morbidity among US servicemembers. In contrast, upper respiratory infections, injuries of the back and abdomen, and disorders of refraction/accommodation (e.g., disorders of visual acuity) affected very large numbers of servicemembers but accounted for very few hospital bed-days.

Figure 1. Medical encounters, individuals affected, and hospital bed days, by burden of disease categories, US Armed Forces, 2003.

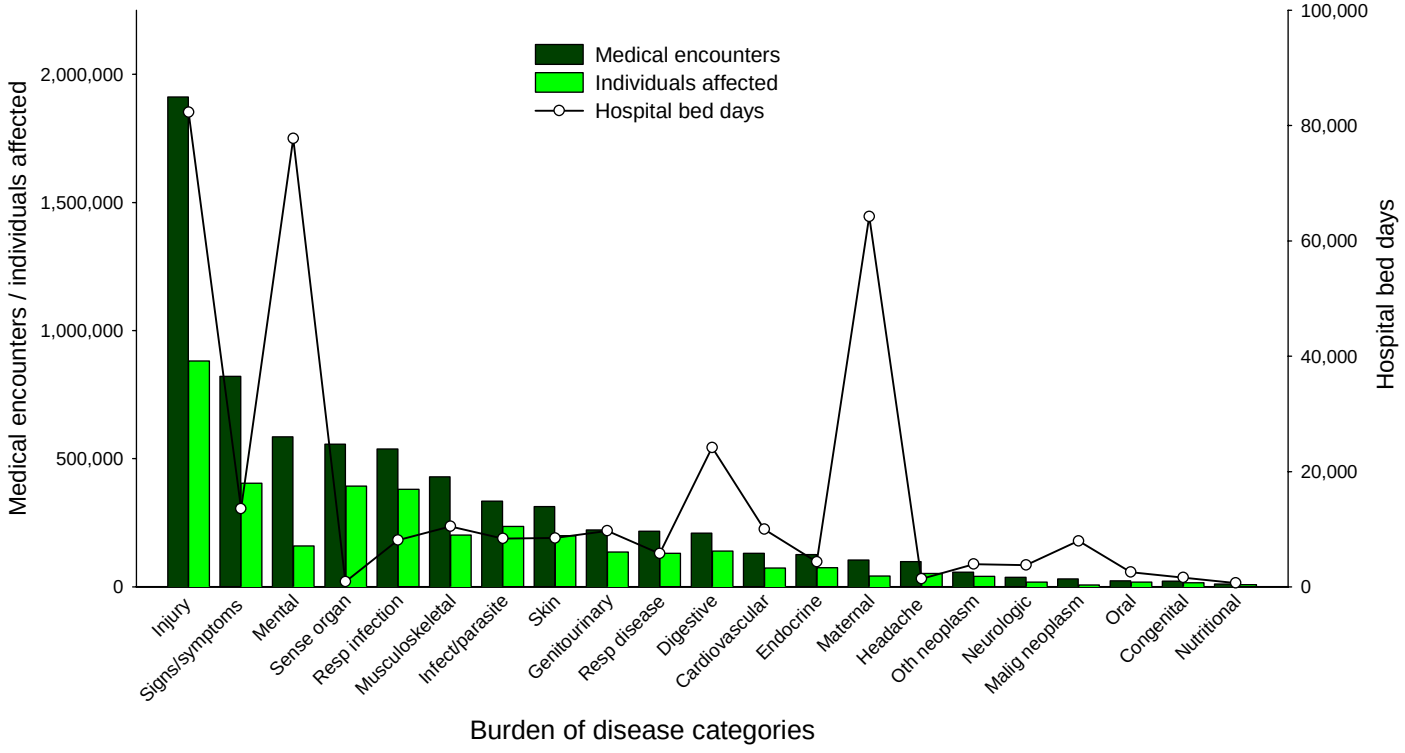


Table 1. Morbidity burdens attributable to selected diseases and injuries, US Armed Forces, 2003

Category	Medical encounters[1]		Individuals affected[2]		Hospital bed days	
	No.	Rank	No.	Rank	No.	Rank
Injury and poisoning						
Back and abdomen	392,224	(3)	153,885	(4)	13,057	(7)
Knee	318,134	(6)	116,066	(10)	4,647	(22)
Foot and ankle	284,092	(7)	135,130	(7)	6,949	(15)
Arm and shoulder	248,956	(8)	88,861	(12)	8,081	(12)
Unspecified injury	223,481	(9)	146,423	(6)	5,849	(19)
Head and neck	152,183	(14)	76,858	(13)	15,912	(5)
Hand and wrist	140,166	(15)	72,663	(16)	4,076	(25)
Leg	73,702	(26)	33,648	(28)	11,402	(9)
Environmental	27,414	(46)	22,237	(41)	1,043	(50)
Other injury from external causes	18,156	(58)	13,735	(54)	325	(80)
Other complications NOS	14,063	(64)	9,280	(60)	7,707	(13)
Poisoning, nondrug	4,319	(80)	3,289	(77)	384	(76)
Poisoning, drugs	3,704	(86)	2,574	(79)	2,233	(36)
All other injury	10,162	(67)	6,885	(62)	626	(64)
Signs and symptoms						
Respiratory and chest	120,190	(17)	73,859	(15)	3,753	(27)
Abdomen and pelvis	91,107	(23)	55,686	(18)	2,710	(32)
All other signs and symptoms	610,455	(1)	275,418	(2)	7,065	(14)
Mental disorders						
Substance abuse disorders	203,695	(11)	27,515	(33)	13,715	(6)
Mood	135,901	(16)	35,288	(26)	27,438	(2)
Adjustment	104,269	(20)	36,855	(25)	16,238	(4)
Anxiety	54,948	(31)	18,927	(45)	3,954	(26)
Tobacco dependence	17,075	(60)	9,307	(59)	8	(118)
Personality	14,220	(63)	5,987	(68)	3,215	(29)
Psychotic	6,427	(75)	1,229	(90)	8,857	(10)
Somatoform	3,865	(84)	1,416	(86)	708	(60)
All other mental disorders	44,287	(36)	22,548	(39)	3,593	(28)
Sense organ diseases						
Refraction/accommodation	345,520	(4)	254,810	(3)	0	(121)
Glaucoma	11,899	(65)	7,508	(61)	26	(111)
Cataracts	1,798	(100)	1,111	(94)	16	(114)
All other sense organ diseases	197,833	(12)	129,515	(8)	851	(55)
Respiratory infections						
Upper respiratory	423,889	(2)	296,069	(1)	1,283	(46)
Lower respiratory	77,225	(25)	55,452	(19)	6,753	(16)
Otitis media	36,639	(41)	29,340	(32)	43	(107)
Musculoskeletal disease						
Other back problems	68,943	(27)	30,337	(31)	2,340	(35)
Other knee disorders	10,723	(66)	6,118	(66)	964	(51)
Osteoarthritis	9,882	(68)	6,576	(64)	523	(71)
Other shoulder disorders	8,064	(72)	4,898	(72)	270	(86)
Rheumatoid arthritis	2,857	(91)	1,120	(93)	61	(103)
All other musculoskeletal disease	327,919	(5)	153,427	(5)	6,309	(18)

1. Medical encounters: hospitalizations and ambulatory visits.
2. Individuals affected: individuals with a hospitalization or ambulatory visit.

Table 1. (Continued) Morbidity burdens attributable to selected diseases and injuries, US Armed Forces, 2003

Category	Medical encounters[1]		Individuals affected[2]		Hospital bed days	
	No.	Rank	No.	Rank	No.	Rank
Infectious and parasitic disease						
Unspecified viral infection	106,948	(19)	75,736	(14)	603	(65)
STDs	29,113	(45)	22,460	(40)	899	(54)
Diarrhoeal disease	23,973	(48)	21,248	(42)	674	(62)
Chlamydia	6,221	(76)	5,536	(70)	4	(120)
Tuberculosis	4,866	(79)	3,612	(76)	196	(91)
Hep B and C	3,647	(87)	1,358	(88)	273	(85)
Tropical cluster	2,338	(93)	337	(106)	15	(115)
Bacterial meningitis	783	(111)	440	(104)	513	(72)
Malaria	383	(114)	205	(112)	503	(73)
Intestinal nematode infection	166	(118)	151	(114)	0	(121)
All other infectious and parasitic diseases	155,354	(13)	104,167	(11)	4,678	(21)
Skin disease						
Contact dermatitis	52,405	(33)	41,808	(24)	59	(104)
Sebaceous gland diseases	47,977	(34)	31,378	(29)	63	(102)
All other skin disease	211,891	(10)	125,930	(9)	8,342	(11)
Genitourinary disease						
Other urethra/urinary tract disorders	35,901	(42)	26,218	(35)	543	(70)
Female genital pain	18,397	(55)	12,521	(56)	692	(61)
Menstrual disorders	18,362	(56)	13,209	(55)	546	(69)
Kidney stones	17,116	(59)	6,679	(63)	1,952	(38)
Other breast disorders	16,994	(61)	9,316	(58)	559	(68)
Nephritis and nephrosis	3,928	(83)	1,317	(89)	764	(57)
Benign prostatic hypertrophy	1,883	(98)	1,394	(87)	32	(110)
All other genitourinary disease	109,068	(18)	65,512	(17)	4,585	(23)
Respiratory disease						
Allergic rhinitis	95,338	(22)	53,467	(21)	4	(120)
Asthma	36,851	(39)	18,366	(46)	802	(56)
Chronic sinusitis	20,337	(51)	15,196	(51)	207	(89)
COPD	19,788	(53)	17,474	(48)	307	(82)
All other respiratory disease	44,100	(37)	26,040	(36)	4,435	(24)
Digestive disease						
Other gastroenteritis and colitis	64,733	(28)	54,449	(20)	1,715	(39)
Esophagus disease	36,672	(40)	23,520	(37)	1,433	(43)
Inguinal hernia	14,247	(62)	6,494	(65)	1,053	(49)
Appendicitis	5,789	(78)	2,743	(78)	6,750	(17)
Peptic ulcer	1,678	(102)	1,138	(92)	585	(66)
Cirrhosis	1,073	(107)	694	(100)	203	(90)
All other digestive disease	85,797	(24)	49,748	(23)	12,401	(8)
Cardiovascular disease						
Essential hypertension	56,632	(30)	31,112	(30)	259	(87)
Ischemic	9,438	(69)	3,873	(75)	2,620	(33)
Cerebrovascular	3,615	(88)	1,452	(84)	1,574	(42)
Inflammatory	1,793	(101)	871	(98)	660	(63)
Rheumatic	608	(113)	504	(103)	39	(108)
All other cardiovascular disease	58,438	(29)	35,005	(27)	4,820	(20)
Endocrine disorders						
Lipoid metabolism disorders	31,338	(43)	22,627	(38)	58	(105)
Obesity	30,361	(44)	19,197	(44)	163	(94)
Diabetes mellitus	18,953	(54)	5,258	(71)	949	(52)
All other endocrine disorders	44,804	(35)	26,559	(34)	3,143	(30)

1. Medical encounters: hospitalizations and ambulatory visits.
2. Individuals affected: individuals with a hospitalization or ambulatory visit.

Table 1. (Continued) Morbidity burdens attributable to selected diseases and injuries, US Armed Forces, 2003

Category	Medical encounters[1]		Individuals affected[2]		Hospital bed days	
	No.	Rank	No.	Rank	No.	Rank
Maternal conditions						
Pregnancy complications	54,703	(32)	19,640	(43)	19,984	(3)
Delivery	40,001	(38)	17,159	(49)	42,591	(1)
Ectopic/miscarriage/abortion	7,699	(74)	4,021	(74)	917	(53)
Puerperium complications	1,991	(97)	1,429	(85)	718	(59)
Headache	97,751	(21)	52,433	(22)	1,373	(44)
Other neoplasms						
Benign skin neoplasm	18,174	(57)	14,415	(52)	5	(119)
Lipoma	9,068	(70)	5,866	(69)	96	(98)
Uterine leiomyoma	3,393	(89)	1,779	(81)	1,597	(41)
All other neoplasms	25,617	(47)	18,177	(47)	2,218	(37)
Neurologic conditions						
Oth mononeuritis - upper and lower limbs	7,970	(73)	4,485	(73)	146	(95)
Epilepsy	3,763	(85)	1,662	(82)	322	(81)
Multiple sclerosis	2,123	(95)	550	(101)	220	(88)
Parkinson disease	119	(123)	51	(120)	0	(121)
All other neurologic conditions	22,690	(49)	11,001	(57)	3,075	(31)
Malignant neoplasms						
Lymphomas and multiple myeloma	6,205	(77)	930	(96)	1,313	(45)
Melanoma and skin cancer	4,279	(81)	2,200	(80)	481	(74)
Breast	2,989	(90)	364	(105)	194	(92)
Testicular	2,853	(92)	508	(102)	392	(75)
Leukemia	2,109	(96)	216	(111)	1,185	(48)
Colon and rectum	1,839	(99)	241	(110)	366	(77)
Brain	1,561	(103)	174	(113)	742	(58)
Prostate	1,371	(105)	285	(108)	303	(83)
Thyroid	1,010	(108)	294	(107)	302	(84)
Mouth and oropharynx	800	(110)	268	(109)	73	(101)
Trachea, bronchus, and lung	618	(112)	99	(116)	183	(93)
Stomach	374	(115)	58	(119)	336	(79)
Bladder	298	(116)	102	(115)	50	(106)
Esophagus	212	(117)	23	(122)	81	(100)
Ovarian	164	(119)	71	(117)	36	(109)
Liver	162	(120)	23	(122)	124	(97)
Cervical	160	(121)	51	(120)	18	(113)
Pancreas	128	(122)	23	(122)	133	(96)
Uterine	55	(125)	23	(122)	12	(117)
All other malignant neoplasms	4,225	(82)	1,159	(91)	1,631	(40)
Oral conditions						
Dental caries	1,259	(106)	985	(95)	23	(112)
Periodontal disease	881	(109)	755	(99)	15	(115)
All other oral conditions	20,678	(50)	15,964	(50)	2,524	(34)
Congenital anomalies						
Congenial heart disease	1,486	(104)	914	(97)	364	(78)
All other congenital anomalies	19,854	(52)	14,263	(53)	1,235	(47)
Nutritional deficiencies						
Iron-deficiency anemia	2,279	(94)	1,482	(83)	93	(99)
Protein energy malnutrition	115	(124)	66	(118)	0	(121)
All other nutritional deficiencies	8,689	(71)	6,056	(67)	568	(67)

1. Medical encounters: hospitalizations and ambulatory visits.
2. Individuals affected: individuals with a hospitalization or ambulatory visit.

During calendar year 2003, the ten leading causes of medical encounters accounted for half of all medical encounters, and the ten conditions that required the most hospital bed-days accounted for more than half of all hospital bed-days. Of note, only injuries of the back/abdomen were among the ten leading sources of both medical encounters and hospital bed-days. In addition, there were 15 illness and injury-specific subgroups among the top 25 in all three morbidity burden-related rankings summarized for this report. Of these, 7 were injuries (to the back/abdomen; knee; foot/ankle; arm/shoulder; unspecified; head/neck; and hand/wrist); and the others were adjustment disorders; infections of the lower respiratory tract; and non-specific diagnoses in various categories (i.e., signs and symptoms, musculoskeletal disorders, skin diseases, infectious and parasitic diseases, genitourinary diseases, and digestive disorders).

In summary, this analysis, like those of the past several years, documents that relative rankings of morbidity burdens among active duty servicemembers vary significantly depending on the methods used to classify illnesses and injuries and on the metrics used to quantify burdens. This summary also documents that, regardless of the methods used to quantify burdens, relatively few illnesses and injuries account for majorities of all morbidity among US servicemembers regardless of how it is measured. We suggest that illnesses and injuries that account for disproportionately large amounts of morbidity (regardless of the metric used to measure it) should be targeted for prevention efforts and given high priorities for prevention resources.

Data analysis and report by Karen E. Johnson, MS, Analysis Group, Army Medical Surveillance Activity.

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Reportable Medical Events, Active Components, US Armed Forces, 2003

In the U.S. Armed Forces, data regarding medical events of special surveillance interest are collected and reported using service-specific electronic reporting programs. The Army uses the Reportable Medical Events System (RMES), the Air Force uses the Air Force Reportable Event Surveillance System (AFRESS), and the Navy uses the Navy Reportable Disease System (NDRS).

Army, Air Force, and Navy preventive medicine/public health activities at fixed installations worldwide collect and electronically transmit data regarding notifiable events to their respective service surveillance centers. From these centers, the data are forwarded to the Army Medical Surveillance Activity (AMSA) in Washington, DC. At AMSA, the data are integrated with personnel and other medical event data in the Defense Medical Surveillance System (DMSS) to enable routine and special summaries, analyses, and reports.

Since 1998, 70 medical conditions[1] have been designated as "reportable" by the Department of Defense. The Army began electronic reporting of notifiable events' data in 1994. During calendar year 2000, the medical surveillance centers of the Navy and Air Force began forwarding their reportable medical event case reports to AMSA for integration into the DMSS. The integration of data from all of the services enables summaries and analyses across the entire U.S. Armed Forces. This report summarizes frequencies, rates, and trends (through calendar year 2003) of reportable medical events among active duty military personnel.

General. During 2003, there were 15,470 reports of notifiable medical events among active component members of the U.S. Armed Forces. During the year, there were an average of 22.9, 14.8, and 4.6 case reports per day from Army, Air Force, and Navy medical treatment facilities (MTFs), respectively. In 2003 compared to 2002, the number of reports declined by 22.5%, 2.6%, and 45.8% from Army, Air Force, and Navy MTFs, respectively. For the Army and Air Force, the declines in notifiable event reports in 2003 were the first since automated reporting began (tables 1-3).

Sexually-transmitted infections. In 2003, as in prior years, sexually-transmitted infections (due to chlamydia, gonorrhea, syphilis, and non-gonococcal urethritis) accounted for nearly 9 of every 10 (88.7%) notifiable event reports among active duty servicemembers. *Chlamydia trachomatis* infections remained the most frequently reported notifiable condition overall (n=11,201, 72.4% of all reports).

Environmental. During 2003, military MTFs reported 324 heat- and 63 cold-related injuries. There were significantly fewer reports of heat- and cold-related injuries in 2003 compared to recent years (tables 1-3, figure 1).

Vaccine preventable illnesses. In 2003, there were no reports of diphtheria, measles, rabies, rubella, or tetanus; one report of mumps; two reports of pertussis; five reports of meningococcal disease; and ten reports of hepatitis A among U.S. servicemembers (tables 1-3). Compared to the average of the prior 3 years, there were approximately one-third fewer reports of both hepatitis B (n=51) and varicella (n=36), but approximately 2.7-times more reports of influenza (n=436). It is likely that the sharp increase in influenza reports during 2003 reflects not only relatively high rates of influenza in some military populations and settings but also more aggressive efforts to characterize the etiologies of influenza-like illnesses and to report confirmed cases.[2]

Arthropod-transmitted diseases. In 2003, the most frequently reported arthropod-transmitted disease was cutaneous leishmaniasis (n=345). Most reported cases of cutaneous leishmaniasis affected U.S. Army soldiers who had prolonged and/or intense exposures to endemic areas of leishmaniasis in Persian Gulf/ Middle East areas of operations (e.g., Iraq, Afghanistan, Kuwait).[3,4] During the year, there were 92 reports of malaria (approximately 80% from Army MTFs[5]): 60% of malaria cases were reported as vivax, 11% as falciparum, and the others as "unspecified." During the year, there were 13 reports of Lyme disease among servicemembers. All of the Services reported significantly fewer cases of Lyme disease in 2003 than

in recent years (tables 1-3, figure 1). Finally, in the past year, there were no or single reports of Rocky Mountain spotted fever, dengue, yellow fever, Rift Valley fever, ehrlichiosis, typhus, and other hemorrhagic fevers among active duty servicemembers (tables 1-3, figure 1).

Food/water-transmitted infections. In 2003, the 53 reports of shigellosis among servicemembers continued an increasing trend since 2000 (tables 1-3, figure 1). In contrast, there were fewer reports of campylobacter, giardiasis, and salmonellosis in 2003 than the averages of the 3 prior years (tables 1-3, figure 1). Finally, there were no or single reported cases of cholera, amebiasis, *E. coli* O157:H7, and typhoid fever (tables 1-3).

Editorial comment. In the military, surveillance of reportable conditions is meant to provide military public health officials with timely information regarding current and emerging, potentially significant, public health and/or medical force protection problems. However, general summaries of reported medical conditions (such as presented here) should be interpreted cautiously. For example, in general, notifiable conditions are incompletely reported; and the completeness of reporting varies across Services, MTFs, and conditions themselves.[6-8] In addition, there are few or no reports of notifiable conditions among servicemembers who are engaged in training exercises or combat operations—unless affected individuals receive care for the conditions at fixed military medical facilities (e.g., cutaneous leishmaniasis). Thus, complete assessments of frequencies, rates, and trends of notifiable conditions require reviews of more than reported cases (e.g., ambulatory visits, hospitalizations)

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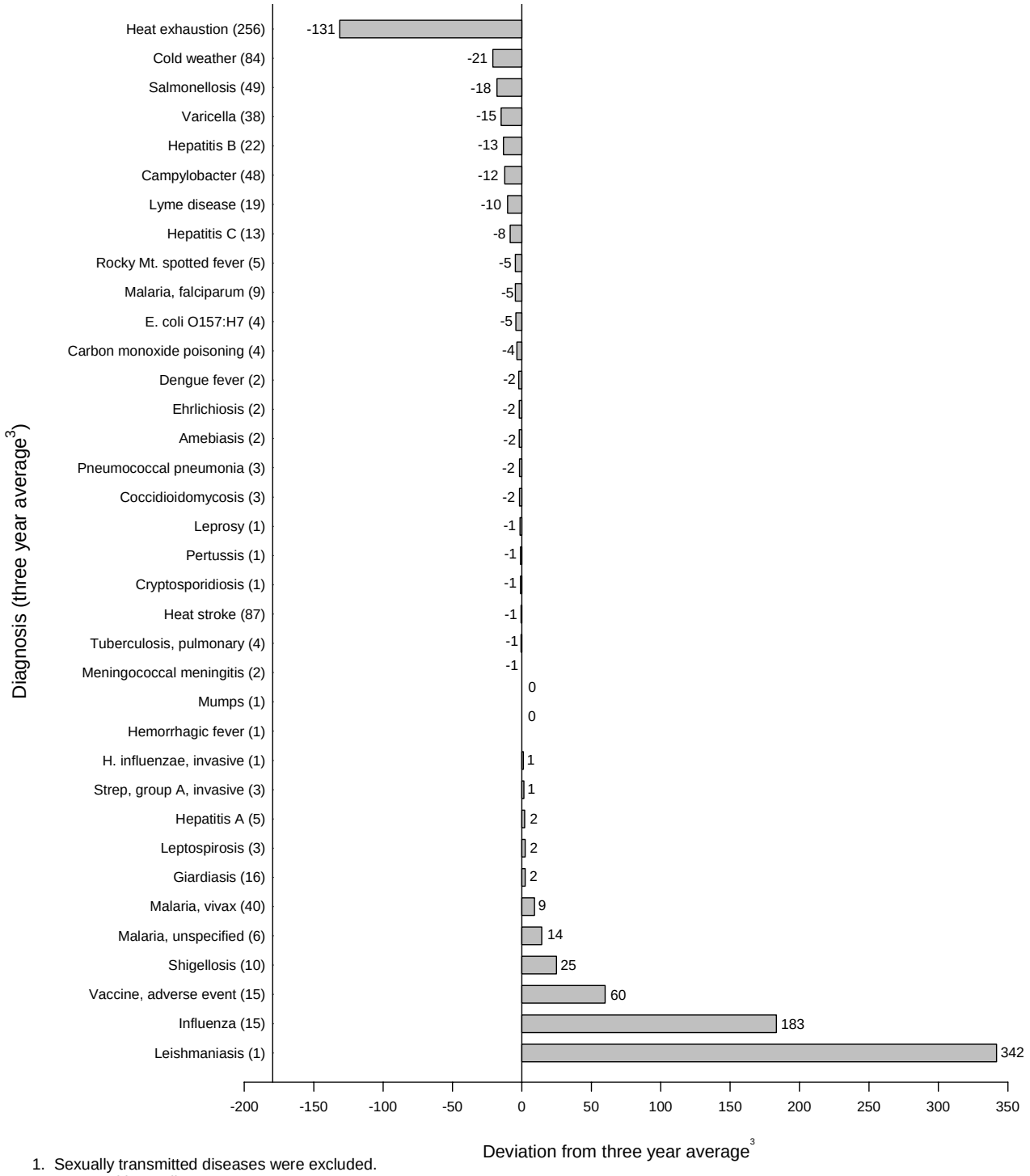
Figure 1. Number of reportable events[1] among active duty personnel during 2003[2] compared to the three year average[3] of 2000-2002, Army medical treatment facilities.



1. Sexually transmitted diseases were excluded.
2. Reported by April 7, 2004.
3. Comparisons given for diseases that had a total three year incidence of at least 3 cases. All averages are rounded to the nearest integer.

Source: Army Reportable Medical Events System

Table 1. Number of reportable events[1] from Army medical treatment facilities[2] among active duty personnel, 1999-2003

Diagnosis[3]	1999	2000	2001	2002	2003	Diagnosis[3]	1999	2000	2001	2002	2003
All reportable events	**8,445**	**9,535**	**9,914**	**10,833**	**8,391**	Listeriosis	.	.	.	.	1
Amebiasis	1	1	4	1	.	Lyme disease	18	25	14	19	9
Anthrax	.	.	.	.	.	Malaria, falciparum	5	3	13	10	4
Bio warfare agent exposure	.	.	.	.	.	Malaria, malariae	.	.	1	.	.
Botulism	.	.	.	.	.	Malaria, ovale	.	.	1	1	.
Brucellosis	.	.	.	.	1	Malaria, unspecified	4	7	8	2	20
Campylobacter	46	35	54	56	36	Malaria, vivax	53	48	25	47	49
Carbon monoxide poisoning	2	6	5	.	.	Measles	.	.	.	.	.
Chemical agent exposure	.	.	.	.	.	Meningococcal meningitis	3	2	1	4	2
Chlamydia	5,036	5,789	6,269	7,244	5,459	Meningococcal septicemia	.	.	.	.	.
Cholera	.	.	.	.	.	Mumps	2	2	1	.	1
Coccidioidomycosis	1	2	2	4	1	Pertussis	.	2	.	1	.
Cold weather, frostbite	80	41	59	49	39	Plague	.	.	.	.	.
Cold weather, hypothermia	10	1	.	.	3	Pneumococcal pneumonia	17	2	4	2	1
Cold weather, immersion type	25	13	13	19	12	Poliomyelitis	.	.	.	.	.
Cold weather, unspecified	2	24	19	13	9	Q fever	.	.	.	1	3
Cryptosporidiosis	.	2	1	.	.	Rabies, human	.	.	.	.	.
Cyclospora	.	.	.	.	.	Relapsing fever	.	.	.	.	.
Dengue fever	3	1	1	5	.	Rheumatic fever, acute	.	.	.	.	.
Diphtheria	.	.	.	.	.	Rift Valley fever	.	.	.	.	.
E. coli O157:H7	3	9	3	1	.	Rocky Mountain spotted fever	.	12	2	.	.
Ehrlichiosis	1	2	3	1	.	Rubella	.	.	.	.	.
Encephalitis	.	.	2	.	.	Salmonellosis	37	41	60	46	31
Filariasis	1	1	.	.	.	Schistosomiasis	.	1	.	.	.
Giardiasis	17	16	20	11	18	Shigellosis	24	7	8	15	35
Gonorrhea	1,537	1,713	1,805	2,053	1,293	Smallpox	.	.	.	.	.
H. influenzae, invasive	5	1	2	.	2	Streptococcus, group A, inv.	1	.	5	3	4
Hantavirus infection	1	.	.	.	2	Syphilis, congenital	3	1	1	.	1
Heat exhaustion	179	240	262	267	125	Syphilis, latent	19	17	8	14	6
Heat stroke	70	54	116	90	86	Syphilis, primary/secondary	39	30	20	19	18
Hemorrhagic fever	1	2	1	.	1	Syphilis, tertiary	7	3	7	.	4
Hepatitis A	3	3	8	4	7	Tetanus	.	.	.	.	.
Hepatitis B	28	21	28	18	9	Toxic shock syndrome	.	1	.	.	.
Hepatitis C	14	16	21	3	5	Trichinosis	.	.	.	1	.
Influenza	64	7	24	13	198	Trypanosomiasis	.	.	.	.	.
Lead poisoning	.	.	.	.	.	Tuberculosis, pulmonary	7	3	4	4	3
Legionellosis	1	.	1	1	.	Tularemia	.	1	.	.	1
Leishmaniasis, cutaneous	4	.	.	2	342	Typhoid fever	.	.	1	.	.
Leishmaniasis, mucocutaneous	.	.	.	.	.	Typhus fever	.	.	.	.	.
Leishmaniasis, unspecified	.	.	.	.	.	Urethritis, non-gonococcal	980	1,225	969	757	446
Leishmaniasis, visceral	.	.	1	.	1	Vaccine, adverse event	24	35	4	6	75
Leprosy	.	.	.	4	.	Varicella, active duty only	67	65	31	18	23
Leptospirosis	.	2	2	4	5	Yellow fever	.	.	.	.	.

1. Events reported by April 7, 2004
2. Main and satellite clinics.
3. Tri-Service Reportable Events, Version 1.0, July 1998

Note: Completeness and timeliness of reporting varies by facility.
Source: Army Reportable Medical Events System

Table 2. Number of reportable events[1] from Navy medical treatment facilities[2] among active duty personnel, 1999-2003

Diagnosis[3]	1999	2000	2001	2002	2003	Diagnosis[3]	1999	2000	2001	2002	2003
All reportable events	**1,912**	**571**	**1,384**	**3,120**	**1,692**	Listeriosis	1	.	.	.	.
Amebiasis	.	.	1	.	.	Lyme disease	12	.	7	14	3
Anthrax	.	.	.	.	.	Malaria, falciparum	2	2	.	.	3
Bio warfare agent exposure	.	.	.	.	.	Malaria, malariae	1	.	.	.	.
Botulism	.	.	.	.	.	Malaria, ovale	.	.	.	.	.
Brucellosis	.	.	.	.	.	Malaria, unspecified	3	.	.	2	3
Campylobacter	15	2	2	8	2	Malaria, vivax	4	.	.	.	3
Carbon monoxide poisoning	.	.	.	.	.	Measles	1	.	.	.	.
Chemical agent exposure	.	.	.	1	.	Meningococcal meningitis	1	.	2	2	2
Chlamydia	1,076	308	1,045	1,956	1,237	Meningococcal septicemia	.	1	.	1	1
Cholera	.	.	.	1	.	Mumps	.	1	.	.	.
Coccidioidomycosis	8	4	7	7	5	Pertussis	.	.	.	.	.
Cold weather, frostbite	.	.	.	.	.	Plague	.	.	.	.	.
Cold weather, hypothermia	.	.	.	.	.	Pneumococcal pneumonia	2	.	.	3	.
Cold weather, immersion type	.	.	.	.	.	Poliomyelitis	.	.	.	.	.
Cold weather, unspecified	.	.	.	1	.	Q fever	.	.	.	.	.
Cryptosporidiosis	4	.	3	.	.	Rabies, human	.	.	.	.	.
Cyclospora	.	.	.	.	.	Relapsing fever	.	.	.	.	.
Dengue fever	.	1	.	.	.	Rheumatic fever, acute	.	.	.	1	.
Diphtheria	.	.	.	.	.	Rift Valley fever	.	.	.	.	.
E. coli O157:H7	.	.	.	.	.	Rocky Mountain spotted fever	.	.	.	.	.
Ehrlichiosis	1	.	.	.	1	Rubella	.	.	.	.	.
Encephalitis	.	.	1	.	.	Salmonellosis	15	3	7	9	18
Filariasis	.	.	.	.	.	Schistosomiasis	.	.	.	1	.
Giardiasis	19	6	2	6	4	Shigellosis	4	1	2	3	5
Gonorrhea	424	98	233	463	237	Smallpox	.	.	.	.	.
H. influenzae, invasive	.	.	.	.	.	Streptococcus, group A, inv.	5	.	2	15	2
Hantavirus infection	.	.	.	.	.	Syphilis, congenital	.	.	.	1	1
Heat exhaustion	51	5	6	160	94	Syphilis, latent	5	3	7	2	2
Heat stroke	16	2	1	25	8	Syphilis, primary/secondary	7	1	3	7	12
Hemorrhagic fever	.	.	.	.	.	Syphilis, tertiary	1	.	.	.	.
Hepatitis A	.	.	.	.	.	Tetanus	.	1	.	.	.
Hepatitis B	9	3	8	8	3	Toxic shock syndrome	1	.	1	.	1
Hepatitis C	4	1	4	3	1	Trichinosis	1	.	.	2	.
Influenza	.	.	1	2	2	Trypanosomiasis	.	.	.	.	.
Lead poisoning	.	.	.	.	.	Tuberculosis, pulmonary	6	2	5	4	3
Legionellosis	.	.	.	.	.	Tularemia	.	.	.	.	.
Leishmaniasis, cutaneous	.	.	.	1	.	Typhoid fever	.	.	.	.	.
Leishmaniasis, mucocutaneous	.	.	.	.	.	Typhus fever	1	.	3	.	1
Leishmaniasis, unspecified	.	.	.	.	.	Urethritis, non-gonococcal	167	118	21	400	31
Leishmaniasis, visceral	.	.	.	.	.	Vaccine, adverse event	2	.	2	3	5
Leprosy	.	.	.	.	.	Varicella, active duty only	43	8	7	8	2
Leptospirosis	.	.	1	.	.	Yellow fever	.	.	.	.	.

1. Events reported by April 7, 2004
2. Main and satellite clinics.
3. Tri-Service Reportable Events, Version 1.0, July 1998

Note: Completeness and timeliness of reporting varies by facility
Source: Navy Reportable Disease System

Table 3. Number of reportable events[1] from Air Force medical treatment facilities[2] among active duty personnel, 1999-2003

Diagnosis[3]	1999	2000	2001	2002	2003	Diagnosis[3]	1999	2000	2001	2002	2003
All reportable events	**786**	**4,018**	**4,383**	**5,530**	**5,387**	Listeriosis	.	.	.	.	.
Amebiasis	.	1	.	1	1	Lyme disease	2	8	11	5	1
Anthrax	.	.	.	.	.	Malaria, falciparum	.	2	.	5	3
Bio warfare agent exposure	.	.	.	.	.	Malaria, malariae	.	1	.	.	.
Botulism	.	.	.	.	.	Malaria, ovale	.	.	1	.	.
Brucellosis	.	.	.	.	1	Malaria, unspecified	.	1	.	.	4
Campylobacter	1	38	24	30	23	Malaria, vivax	1	2	3	2	3
Carbon monoxide poisoning	.	.	.	.	.	Measles	.	.	.	.	.
Chemical agent exposure	.	.	.	.	.	Meningococcal meningitis	.	1	.	.	.
Chlamydia	548	3,070	3,639	4,690	4,505	Meningococcal septicemia	.	.	.	.	.
Cholera	.	.	.	.	.	Mumps	.	1	2	1	.
Coccidioidomycosis	6	4	6	2	1	Pertussis	.	4	2	.	2
Cold weather, frostbite	.	2	1	.	.	Plague	.	.	.	.	.
Cold weather, hypothermia	.	1	.	.	.	Pneumococcal pneumonia	.	1	.	.	6
Cold weather, immersion type	.	.	.	.	.	Poliomyelitis	.	.	.	.	.
Cold weather, unspecified	.	.	1	.	.	Q fever	.	.	.	.	1
Cryptosporidiosis	.	1	2	.	.	Rabies, human	.	.	.	.	.
Cyclospora	.	.	.	.	.	Relapsing fever	.	.	.	.	.
Dengue fever	.	.	1	.	.	Rheumatic fever, acute	.	1	.	.	.
Diphtheria	.	.	.	.	.	Rift Valley fever	.	.	.	.	.
E. coli O157:H7	1	1	1	.	.	Rocky Mountain spotted fever	.	.	.	1	.
Ehrlichiosis	.	.	.	.	.	Rubella	.	.	.	.	.
Encephalitis	.	.	.	.	2	Salmonellosis	4	25	18	14	17
Filariasis	.	.	.	.	.	Schistosomiasis	.	.	.	.	.
Giardiasis	10	18	16	13	9	Shigellosis	5	6	11	23	13
Gonorrhea	94	428	406	412	442	Smallpox	.	.	.	.	.
H. influenzae, invasive	1	1	.	.	.	Streptococcus, group A, inv.	.	9	2	1	3
Hantavirus infection	.	.	1	.	.	Syphilis, congenital	.	1	1	.	3
Heat exhaustion	2	76	25	18	11	Syphilis, latent	3	3	5	4	8
Heat stroke	.	1	1	.	.	Syphilis, primary/secondary	3	10	8	11	12
Hemorrhagic fever	.	.	.	.	.	Syphilis, tertiary	.	.	.	.	.
Hepatitis A	.	3	7	7	3	Tetanus	.	.	.	.	.
Hepatitis B	13	48	29	58	39	Toxic shock syndrome	.	.	.	1	.
Hepatitis C	7	45	21	33	11	Trichinosis	1	2	1	1	2
Influenza	72	155	106	169	236	Trypanosomiasis	.	.	.	.	.
Lead poisoning	.	.	.	.	.	Tuberculosis, pulmonary	2	1	.	2	1
Legionellosis	.	1	.	2	2	Tularemia	.	.	.	.	.
Leishmaniasis, cutaneous	.	.	.	.	3	Typhoid fever	.	.	1	.	1
Leishmaniasis, mucocutaneous	.	.	.	.	.	Typhus fever	.	.	.	.	.
Leishmaniasis, unspecified	.	.	.	.	.	Urethritis, non-gonococcal	7	34	20	16	6
Leishmaniasis, visceral	.	.	.	.	.	Vaccine, adverse event	.	.	.	.	.
Leprosy	.	.	.	.	1	Varicella, active duty only	3	11	10	8	11
Leptospirosis	.	.	.	.	.	Yellow fever	.	.	.	.	.

1. Events reported by April 7, 2004
2. Main and satellite clinics.
3. Tri-Service Reportable Events, Version 1.0, July 1998

Note: Completeness and timeliness of reporting varies by facility.
Source: Air Force Reportable Event Surveillance System

Table 1. Demographic characteristics of active component members, US Armed Forces, 2003

	Army		Navy		Air Force		Marine Corps	
Characteristic	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Total	497,426	100.0	375,996	100.0	371,196	100.0	176,642	100.0
Gender								
Men	422,249	84.9	321,412	85.5	298,374	80.4	166,164	94.1
Women	75,170	15.1	54,584	14.5	72,822	19.6	10,477	5.9
Age* (years)								
< 20	41,071	8.3	29,838	7.9	25,044	6.7	28,856	16.3
20-24	166,746	33.5	126,710	33.7	112,368	30.3	80,438	45.5
25-29	103,901	20.9	75,054	20.0	74,276	20.0	29,734	16.8
30-34	77,264	15.5	54,923	14.6	53,426	14.4	16,995	9.6
35-39	61,396	12.3	49,415	13.1	56,460	15.2	12,132	6.9
40-44	31,678	6.4	26,976	7.2	36,259	9.8	6,006	3.4
45-49	11,139	2.2	9,794	2.6	10,268	2.8	1,999	1.1
50-54	3,389	0.7	2,662	0.7	2,563	0.7	415	0.2
55-59	707	0.1	520	0.1	478	0.1	62	0.0
> 59	127	0.0	103	0.0	54	0.0	5	0.0
Race/ethnicity*								
White non-hispanic	281,393	56.6	216,961	57.7	245,244	66.1	109,023	61.7
Black non-hispanic	113,197	22.8	67,254	17.9	51,905	14.0	21,626	12.2
Hispanic	49,648	10.0	35,335	9.4	21,259	5.7	24,432	13.8
Asian/Pacific Islander	17,373	3.5	23,830	6.3	12,897	3.5	4,571	2.6
Native American/Alaskan	4,409	0.9	9,134	2.4	2,700	0.7	3,309	1.9
Other	118	0.0	1,444	0.4	1,951	0.5	667	0.4
Marital status*								
Single	220,223	44.3	185,903	49.4	129,768	35.0	94,091	53.3
Married	256,192	51.5	190,093	50.6	217,338	58.6	76,949	43.6
Other**	20,163	4.1	0	0.0	22,543	6.1	5,599	3.2
Education*								
High school or less	360,350	72.4	298,896	79.5	241,268	65.0	154,112	87.2
Some college	34,083	6.9	17,948	4.8	41,671	11.2	4,071	2.3
Bachelors	61,326	12.3	38,154	10.1	44,647	12.0	15,079	8.5
Masters	20,379	4.1	5,724	1.5	30,685	8.3	2,820	1.6
Doctorate	9,179	1.8	3,957	1.1	8,069	2.2	436	0.2
Grade*								
Enlisted								
E1-E4	234,476	47.1	157,414	41.9	136,954	36.9	106,252	60.2
E5-E9	183,141	36.8	163,516	43.5	160,699	43.3	51,758	29.3
Officer								
O1-O3 (W1-W3)	50,925	10.2	33,530	8.9	42,673	11.5	12,300	7.0
O4-O9 (W4-W5)	28,872	5.8	21,525	5.7	30,766	8.3	6,328	3.6

*Subgroups may not add up to total due to missing values

**Includes widowed, separated, divorced

Notice of correction: The current table is a corrected version of prior hard copy and on-line versions that summarized age distributions incorrectly.

Table 2. Military occupations* of active component members, US Armed Forces, 2003

	Army		Navy		Air Force		Marine Corps	
Characteristic	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Total	497,426	100.0	375,996	100.0	371,196	100.0	176,642	100.0
Enlisted**								
Infantry, seamen, gun crews	104,590	21.0	30,082	8.0	28,114	7.6	35,266	20.0
Electronic equip repair	45,558	9.2	43,198	11.5	26,292	7.1	10,732	6.1
Communications, intelligence	47,320	9.5	29,224	7.8	24,073	6.5	10,969	6.2
Health care	33,053	6.6	26,251	7.0	21,813	5.9	0	0.0
Technical and allied support	6,228	1.3	4,329	1.2	11,418	3.1	3,969	2.2
Funct support, admin	72,559	14.6	35,997	9.6	61,928	16.7	25,312	14.3
Electric/mech equip repair	59,997	12.1	90,646	24.1	72,004	19.4	25,341	14.3
Craftworkers	7,268	1.5	18,886	5.0	14,107	3.8	3,998	2.3
Service, supply handlers	37,793	7.6	20,345	5.4	15,041	4.1	19,811	11.2
Non-occupational	3,220	0.6	21,971	5.8	22,688	6.1	22,607	12.8
Officers**								
General officers and executives	318	0.1	220	0.1	688	0.2	669	0.4
Tactical operations	29,002	5.8	20,720	5.5	23,322	6.3	8,614	4.9
Intelligence	5,241	1.1	2,279	0.6	3,655	1.0	908	0.5
Engineering and maintenance	11,225	2.3	6,802	1.8	10,698	2.9	2,128	1.2
Scientists, professionals	4,649	0.9	2,085	0.6	4,560	1.2	490	0.3
Health care	13,888	2.8	10,945	2.9	11,807	3.2	0	0.0
Administrators	5,355	1.1	2,651	0.7	5,289	1.4	1,549	0.9
Supply, allied specialists	7,999	1.6	2,729	0.7	6,418	1.7	2,503	1.4
Non-occupational	1,737	0.3	6,633	1.8	3,701	1.0	1,766	1.0

*Based on DoD occupational area codes

**Subgroups may not add up to total due to missing values

Table 1. Demographic characteristics of Reserves, US Armed Forces, 2003

	Army		Navy		Air Force		Marine Corps	
Characteristic	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Total	210,907	100.0	87,662	100.0	74,307	100.0	41,025	100.0
Gender*								
Men	159,326	75.5	69,489	79.3	57,282	77.1	39,099	95.3
Women	51,333	24.3	18,173	20.7	17,025	22.9	1,925	4.7
Age* (years)								
< 20	21,269	10.1	650	0.7	1,580	2.1	4,720	11.5
20-24	44,567	21.1	6,317	7.2	6,457	8.7	19,065	46.5
25-29	28,519	13.5	11,372	13.0	7,716	10.4	7,852	19.1
30-34	27,832	13.2	19,435	22.2	10,788	14.5	3,799	9.3
35-39	30,480	14.5	22,805	26.0	15,348	20.7	2,801	6.8
40-44	26,226	12.4	15,028	17.1	14,607	19.7	1,726	4.2
45-49	16,433	7.8	7,154	8.2	8,798	11.8	749	1.8
50-54	9,727	4.6	3,338	3.8	5,841	7.9	232	0.6
55-59	5,563	2.6	1,450	1.7	3,107	4.2	77	0.2
> 59	274	0.1	113	0.1	65	0.1	4	0.0
Race/ethnicity*								
White non-hispanic	114,977	54.5	52,370	59.7	44,238	59.5	19,965	48.7
Black non-hispanic	46,765	22.2	12,287	14.0	11,034	14.8	3,316	8.1
Hispanic	22,282	10.6	7,219	8.2	4,660	6.3	6,004	14.6
Asian/Pacific Islander	8,250	3.9	3,369	3.8	2,574	3.5	1,598	3.9
Native American/Alaskan	1,667	0.8	1,498	1.7	685	0.9	444	1.1
Other	46	0.0	1,685	1.9	138	0.2	136	0.3
Marital status*								
Single	95,411	45.2	31,856	36.3	19,971	26.9	26,662	65.0
Married	98,675	46.8	50,613	57.7	45,929	61.8	13,092	31.9
Other**	16,305	7.7	4,745	5.4	8,405	11.3	1,269	3.1
Education*								
High school or less	130,833	62.0	49,399	56.4	43,122	58.0	34,358	83.7
Some college	24,149	11.5	11,197	12.8	7,978	10.7	1,410	3.4
Bachelors	33,541	15.9	15,877	18.1	13,394	18.0	3,966	9.7
Masters	11,703	5.5	4,833	5.5	6,746	9.1	835	2.0
Doctorate	5,455	2.6	1,344	1.5	2,468	3.3	352	0.9
Grade*								
Enlisted								
E1-E4	92,189	43.7	25,162	28.7	14,807	19.9	28,795	70.2
E5-E9	78,559	37.2	44,086	50.3	42,803	57.6	8,572	20.9
Officer								
O1-O3 (W1-W3)	17,696	8.4	4,138	4.7	4,572	6.2	795	1.9
O4-O9 (W4-W5)	22,463	10.7	14,275	16.3	12,120	16.3	2,863	7.0

*Subgroups may not add up to total due to missing values

**Includes widowed, separated, divorced

Notice of correction: The current table is a corrected version of prior hard copy and on-line versions that summarized age distributions incorrectly.

Table 2. Military occupations* of Reserves, US Armed Forces, 2003

	Army		Navy		Air Force		Marine Corps	
Characteristic	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Total	210,907	100.0	87,662	100.0	74,307	100.0	41,025	100.0
Enlisted**								
Infantry, seamen, gun crews	12,354	5.9	6,763	7.7	6,233	8.4	11,526	28.1
Electronic equip repair	11,544	5.5	7,318	8.3	2,740	3.7	1,298	3.2
Communications, intelligence	6,608	3.1	5,272	6.0	1,801	2.4	2,929	7.1
Health care	16,780	8.0	6,163	7.0	6,164	8.3	0	0.0
Technical and allied support	1,955	0.9	540	0.6	1,932	2.6	463	1.1
Funct support, admin	46,203	21.9	15,146	17.3	15,203	20.5	4,681	11.4
Electric/mech equip repair	18,143	8.6	12,984	14.8	12,455	16.8	4,857	11.8
Craftworkers	9,484	4.5	10,256	11.7	3,384	4.6	1,180	2.9
Service, supply handlers	23,021	10.9	4,456	5.1	2,990	4.0	5,659	13.8
Non-occupational	20,790	9.9	350	0.4	4,534	6.1	4,772	11.6
Officers**								
General officers and executives	124	0.1	54	0.1	267	0.4	299	0.7
Tactical operations	6,799	3.2	7,099	8.1	5,022	6.8	1,807	4.4
Intelligence	2,094	1.0	2,035	2.3	1,136	1.5	199	0.5
Engineering and maintenance	3,821	1.8	2,130	2.4	1,993	2.7	366	0.9
Scientists, professionals	4,446	2.1	756	0.9	1,456	2.0	186	0.5
Health care	12,211	5.8	3,674	4.2	4,200	5.7	0	0.0
Administrators	3,662	1.7	1,218	1.4	1,061	1.4	278	0.7
Supply, allied specialists	5,390	2.6	1,162	1.3	1,229	1.7	488	1.2
Non-occupational	757	0.4	284	0.3	221	0.3	22	0.1

*Based on DoD occupational area codes

**Subgroups may not add up to total due to missing values

Table 1. Demographic characteristics, National Guard, US Armed Forces, 2003

Characteristic	Army No.	Army %	Navy* No.	Navy* %	Air Force No.	Air Force %	Marine Corps* No.	Marine Corps* %
Total	347,165	100.0	-	-	107,805	100.0	-	-
Gender**								
Men	303,371	87.4	-	-	88,905	82.5	-	-
Women	43,792	12.6	-	-	18,897	17.5	-	-
Age (years)**								
< 20	32,546	9.4	-	-	3,573	3.3	-	-
20-24	80,007	23.0	-	-	15,235	14.1	-	-
25-29	51,409	14.8	-	-	13,635	12.6	-	-
30-34	50,289	14.5	-	-	16,049	14.9	-	-
35-39	49,217	14.2	-	-	20,237	18.8	-	-
40-44	37,557	10.8	-	-	17,534	16.3	-	-
45-49	20,339	5.9	-	-	9,716	9.0	-	-
50-54	15,127	4.4	-	-	7,522	7.0	-	-
55-59	10,392	3.0	-	-	4,230	3.9	-	-
> 59	282	0.1	-	-	74	0.1	-	-
Race/ethnicity**								
White non-hispanic	233,603	67.3	-	-	79,880	74.1	-	-
Black non-hispanic	45,812	13.2	-	-	8,840	8.2	-	-
Hispanic	26,044	7.5	-	-	6,146	5.7	-	-
Asian/Pacific Islander	7,554	2.2	-	-	3,919	3.6	-	-
Native American/Alaskan	2,972	0.9	-	-	1,652	1.5	-	-
Other	105	0.0	-	-	144	0.1	-	-
Marital status**								
Single	150,681	43.4	-	-	34,426	31.9	-	-
Married	173,746	50.0	-	-	63,147	58.6	-	-
Other***	22,738	6.5	-	-	10,225	9.5	-	-
Education**								
High school or less	244,897	70.5	-	-	11,462	10.6	-	-
Some college	54,268	15.6	-	-	74,189	68.8	-	-
Bachelors	38,595	11.1	-	-	14,623	13.6	-	-
Masters	6,936	2.0	-	-	3,545	3.3	-	-
Doctorate	2,396	0.7	-	-	1,420	1.3	-	-
Grade**								
Enlisted								
E1-E4	177,682	51.2	-	-	26,395	24.5	-	-
E5-E9	132,859	38.3	-	-	67,728	62.8	-	-
Officer								
O1-O3 (W1-W3)	22,217	6.4	-	-	4,483	4.2	-	-
O4-O9 (W4-W5)	14,406	4.1	-	-	9,196	8.5	-	-

*Not applicable

**Subgroups may not add up to totals due to missing values

*** Includes widowed, separated, divorced

Notice of correction: The current table is a corrected version of prior hard copy and on-line versions that summarized age distributions incorrectly.

Table 2. Military occupations*, National Guard, US Armed Forces, 2003

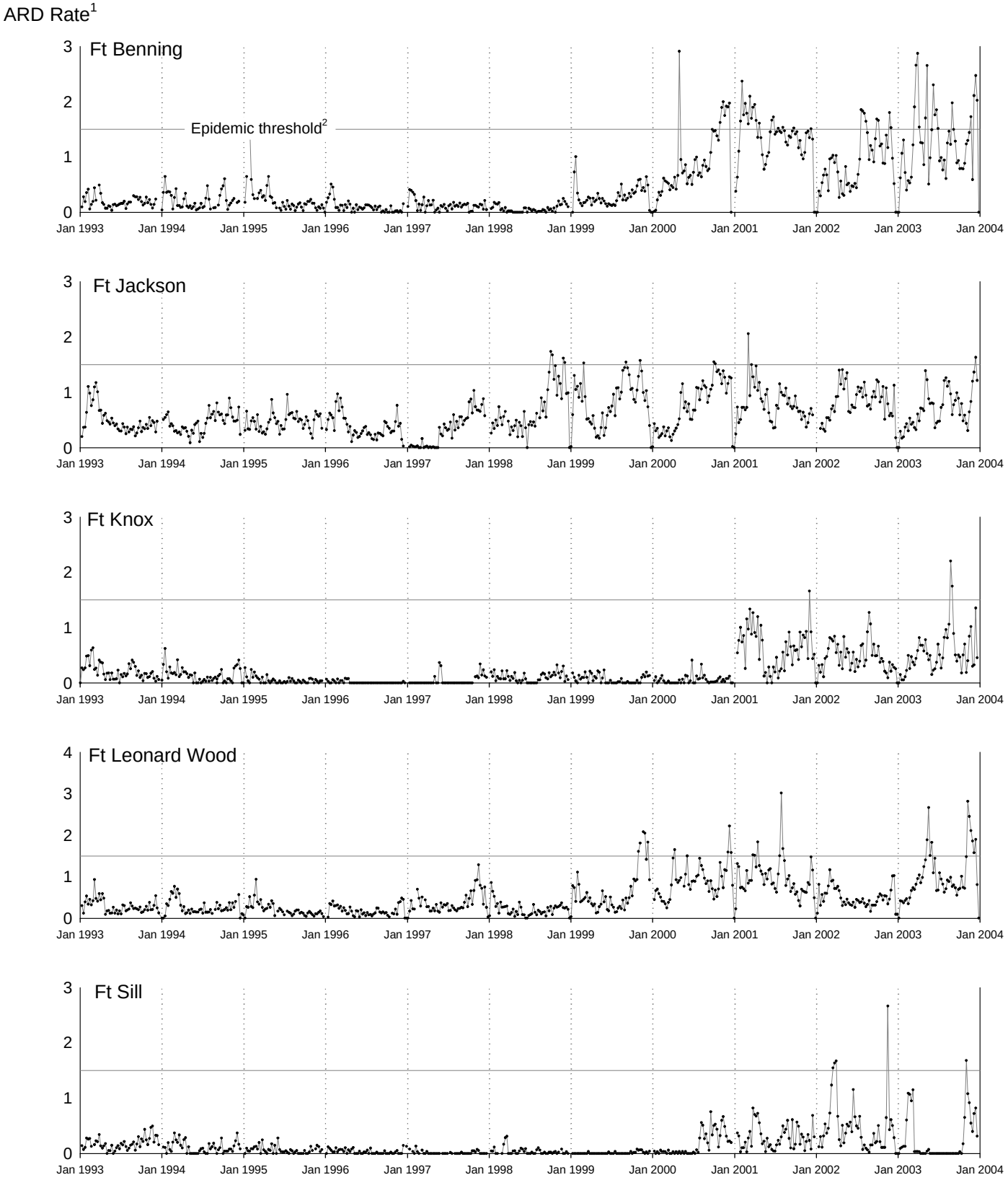
	Army		Navy**		Air Force		Marine Corps**	
Characteristic	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Total	347,165	100.0	-	-	107,805	100.0	-	-
Enlisted* **								
Infantry, seamen, gun crews	72,683	20.9	-	-	8,599	8.0	-	-
Electronic equip repair	11,139	3.2	-	-	8,631	8.0	-	-
Communications, intelligence	16,944	4.9	-	-	3,645	3.4	-	-
Health care	12,123	3.5	-	-	4,107	3.8	-	-
Technical and allied support	8,171	2.4	-	-	4,384	4.1	-	-
Funct support, admin	44,577	12.8	-	-	20,227	18.8	-	-
Electric/mech equip repair	42,794	12.3	-	-	25,810	23.9	-	-
Craftworkers	12,974	3.7	-	-	5,912	5.5	-	-
Service, supply handlers	37,848	10.9	-	-	5,863	5.4	-	-
Non-occupational	51,284	14.8	-	-	6,784	6.3	-	-
Officers* **								
General officers and executives	183	0.1	-	-	372	0.3	-	-
Tactical operations	16,279	4.7	-	-	5,056	4.7	-	-
Intelligence	1,122	0.3	-	-	376	0.3	-	-
Engineering and maintenance	3,970	1.1	-	-	1,945	1.8	-	-
Scientists, professionals	1,029	0.3	-	-	620	0.6	-	-
Health care	3,080	0.9	-	-	2,089	1.9	-	-
Administrators	2,614	0.8	-	-	1,257	1.2	-	-
Supply, allied specialists	3,676	1.1	-	-	785	0.7	-	-
Non-occupational	4,102	1.2	-	-	314	0.3	-	-

*Based on DoD occupational area codes

**Not applicable

***Subgroups may not add up to total due to missing values

Acute respiratory disease (ARD), by week, Army basic training centers, 1993-2003



[1]ARD rate = cases per 100 trainees per week
[2]ARD rate >= 1.5 for 2 weeks defines epidemic

Update: Pre- and Post-deployment Health Assessments, US Armed Forces, September 2002-March 2004

The June 2003 issue of the MSMR summarized the background of, rationale for, and applicable polices and guidelines related to pre- and post-deployment health assessments of deploying servicemembers.[1-10] Briefly, prior to deploying, the health of each servicemember is assessed to ensure his/her medical fitness and readiness for deployment; and at the time of redeployment, the health of each servicemember is again assessed to identify medical conditions and/or exposures of concern—to ensure timely and comprehensive evaluation and treatment.

Completed pre- and post-deployment health assessment forms are routinely sent to the Army Medical Surveillance Activity (AMSA) where they are archived in the Defense Medical Surveillance System (DMSS).[11] In the DMSS, data recorded on pre- and post-deployment forms are integrated with data that document demographic and military characteristics and medical experiences (e.g., hospitalizations, ambulatory visits, immunizations) of servicemembers.[11] The continuously expanding integrated DMSS database can be used to monitor the health of servicemembers who participate in various deployments.[11-13]

The overall success of deployment force health protection efforts depends in part on the completeness and quality of pre- and post-deployment health assessments. This report summarizes characteristics of servicemembers who completed pre- (since 1 September 2002) and post- (since 1 January 2003) deployment forms, responses to selected questions on pre- and post-deployment forms, and changes in responses of individuals from pre- to post-deployment.

Methods. For this update, the DMSS was searched to identify all pre- and post-deployment forms that were completed after 1 September 2002 (in order that assessments of servicemembers who deployed in October 2002 were included in analyses). For summary purposes, pre-deployment responses included all assessments (DD Form 2795) completed after 1 September 2002, and post-deployment responses included all assessments (DD Form 2796) completed after 1 January 2003.

Results. From 1 September 2002 to 31 March 2004, 613,886 pre-deployment health assessment forms were completed at field sites, shipped to AMSA, and entered into the DMSS database.

In general, the distributions of self-assessments of "overall health status" were similar among pre- and post-deployment form respondents (figure 1). Relatively more pre-deployment (32%) than post-deployment (22%) respondents assessed their "overall health" as "excellent"; similar proportions of respondents to the pre- and post-deployment forms assessed their "overall health" as "very good"; and before and after deploying, fewer than 7% of respondents assessed their overall health as "fair" or "poor" (figure 1).

On post-deployment forms, approximately 21% of active and 36% of Reserve component respondents reported "medical/dental problems"; and approximately 4% of respondents overall reported "mental health concerns"(table 2). There was significant variability across services and components in percentages of post-deployment forms that reported that referrals were indicated (table 2). For example, 66% of active component Navy members and 26% of active and reserve component soldiers had indications for referrals (table 2).

Among servicemembers (n=254,362) who completed both forms, approximately half (46.6%) chose the same descriptor of their "overall health status" before and after deploying (figures 2,3). Of those (n=135,686) who changed their health status assessments from pre- to post-deployment, more than three-fourths (76.7%) changed by a single category (on a five category scale) (figure 2,3); and of those who changed by more than one category, approximately 7-times more indicated a decrement (n=27,444) than an improvement (n=4,159) in overall health (figure 3).

Overall, 14.9% of all servicemembers who completed post-deployment forms reported deployment-related "exposure concerns." The likelihood of reporting an "exposure concern" increased monotonically with age (table 3). In general, reservists, members of the Marine Corps and Army, and officers were more likely to report

Figure 1. Percent distributions of self-assessment health status, pre- and post-deployment, US Armed Forces, September 2002-March 2004.

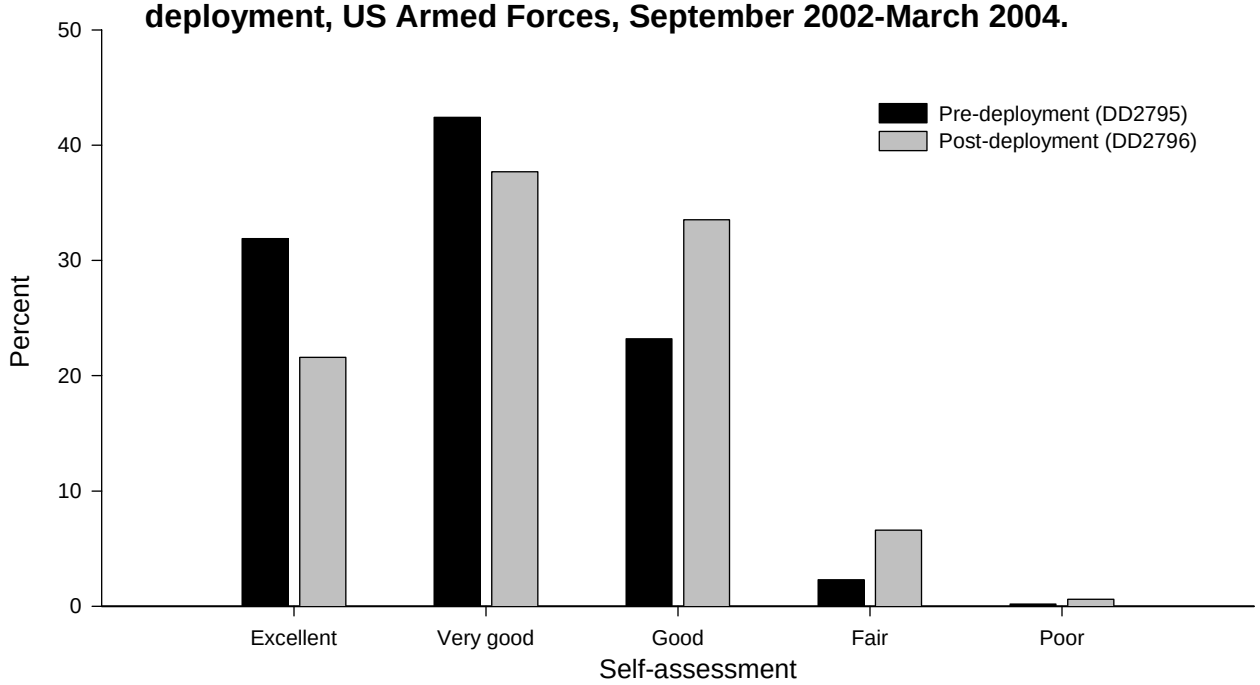


Table 1. Total pre-deployment and post-deployment health assessments, by month and year, US Armed Forces

	Pre-deployment *		Post-deployment **	
	No.	%	No.	%
Total	613,886	100.0	488,354	100.0
2002				
September	11,140	1.8	-	-
October	16,491	2.7	-	-
November	19,671	3.2	-	-
December	16,989	2.8	-	-
2003				
January	68,562	11.2	5,671	1.2
February	109,384	17.8	4,588	0.9
March	69,475	11.3	6,195	1.3
April	37,311	6.1	18,011	3.7
May	12,728	2.1	87,542	17.9
June	14,260	2.3	64,398	13.2
July	17,391	2.8	50,013	10.2
August	15,666	2.6	33,874	6.9
September	12,397	2.0	29,239	6.0
October	22,718	3.7	25,822	5.3
November	18,393	3.0	19,248	3.9
December	33,418	5.4	20,028	4.1
2004				
January	63,755	10.4	35,025	7.2
February	35,051	5.7	28,943	5.9
March	19,086	3.1	59,757	12.2

* Total pre-deployment assessments (DD form 2795) 1September 2002-31 March 2004.
** Total post-deployment assessments (DD form 2796) 1January 2003-31 March 2004.

"exposure concerns" than their respective counterparts (table 3).

Editorial comment. In general, servicemembers who have been mobilized/deployed since September 2002 have assessed their overall health as "good" to "excellent." The distributions of self-assessed health statuses are generally similar prior to and after returning from deploying; however, more servicemembers reported declines than improvements in their overall health from pre- to post-deployment. This is not surprising considering the extreme physical and psychological stresses associated with mobilization, overseas deployment, and harsh and dangerous living and working conditions.[14] The deployment health assessment process is specifically designed to identify, assess, and follow-up as necessary all servicemembers with concerns regarding health and/or deployment-related exposures.

Overall, approximately one of every 7 servicemembers who completed post-deployment health assessments reported an "exposure concern." Of demographic factors, the strongest correlate of reporting an exposure concern was older age. The higher crude prevalences of exposure concerns among reservists (versus active component) and officers (versus enlisted), for example, may be related at least in part to differences in the age distributions of the respective groups. Trends in the numbers and natures of deployment-related "exposure concerns" will be monitored as more servicemembers return from overseas assignments and/or demobilize.

Table 2. Reponses to selected questions from post-deployment forms (DD2796) submitted since 1 January 2003, by service and component, US Armed Forces*

Active component	Army	Navy	Air Force	Marines	Total
SMs with DD 2796 at AMSA	146,218	48,372	44,650	46,854	286,094
DD 2796 enhanced version**	51%	0%	7%	1%	33%
General health ("fair" or "poor")	9%	5%	2%	6%	7%
Medical/dental problems	27%	12%	11%	18%	21%
Currently on profile	10%	1%	2%	3%	6%
Mental health concerns	5%	2%	1%	2%	3%
Exposure concerns	17%	5%	6%	12%	13%
Health concerns	15%	6%	5%	8%	11%
Referral indicated	26%	6%	10%	10%	17%
Medical followup after referral***	90%	71%	87%	64%	82%
Post deployment serum*	90%	76%	91%	79%	87%
Reserve component					
SMs with DD 2796 at AMSA	115,379	9,883	19,449	11,554	156,265
DD 2796 enhanced version**	47%	1%	1%	0%	38%
General health ("fair" or "poor")	10%	5%	3%	10%	9%
Medical/dental problems	39%	33%	18%	36%	36%
Currently on profile	14%	4%	2%	4%	11%
Mental health concerns	6%	2%	1%	3%	5%
Exposure concerns	21%	13%	11%	30%	20%
Health concerns	22%	18%	9%	24%	21%
Referral indicated	26%	15%	14%	25%	24%
Medical followup after referral***	76%	87%	63%	57%	74%
Post deployment serum*	89%	88%	71%	81%	87%

* As of 10 May 2004.

** Only calculated for DD form 2796 completed since 1 June 2003.

*** Any hospitalization or outpatient visit within 6 months after referral.

Note: Subgroup totals may not equal the overall total due to missing/unknown data.

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10. USD (Personnel and Readiness) memorandum, subject: Enhanced post-deployment health assessments. 22 Apr 2003.
11. Rubertone MV, Brundage JF. The Defense Medical Surveillance System and the Department of Defense Serum Repository: glimpses of the future of comprehensive public health surveillance. Am J Pub Hlth. 2002 Dec;92(12):1900-4.
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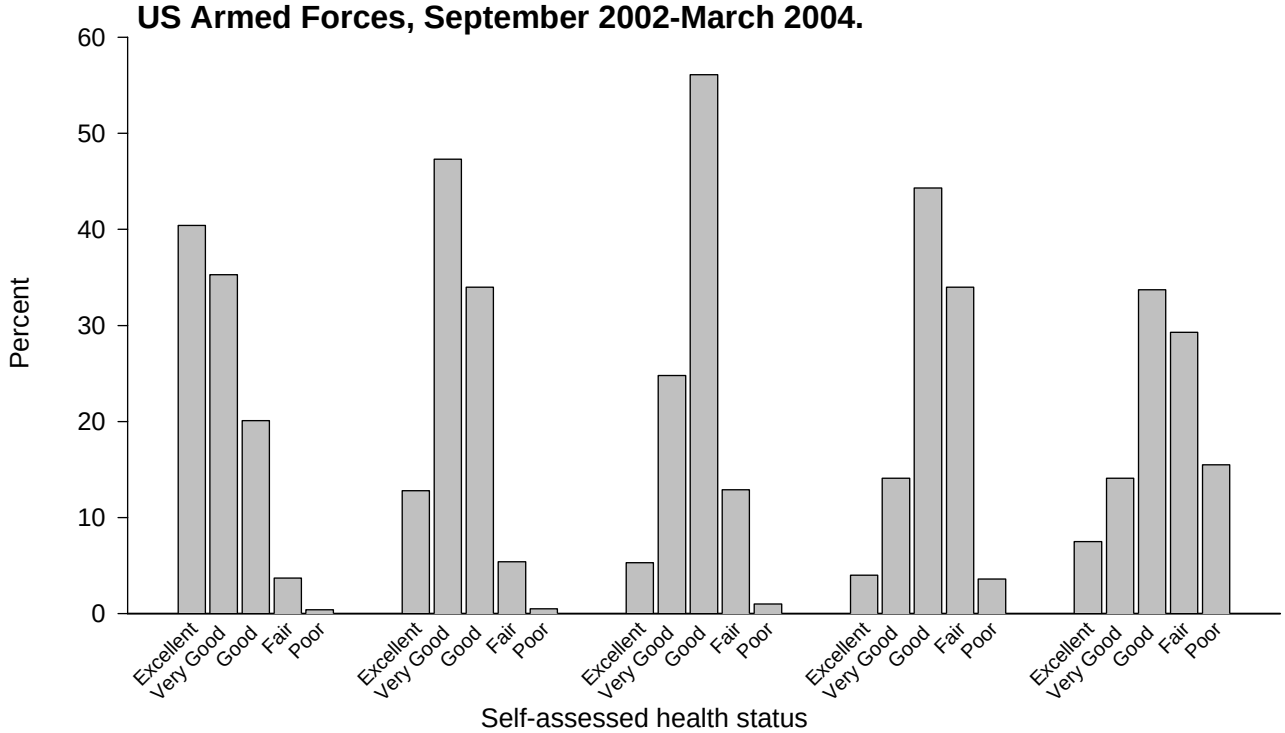
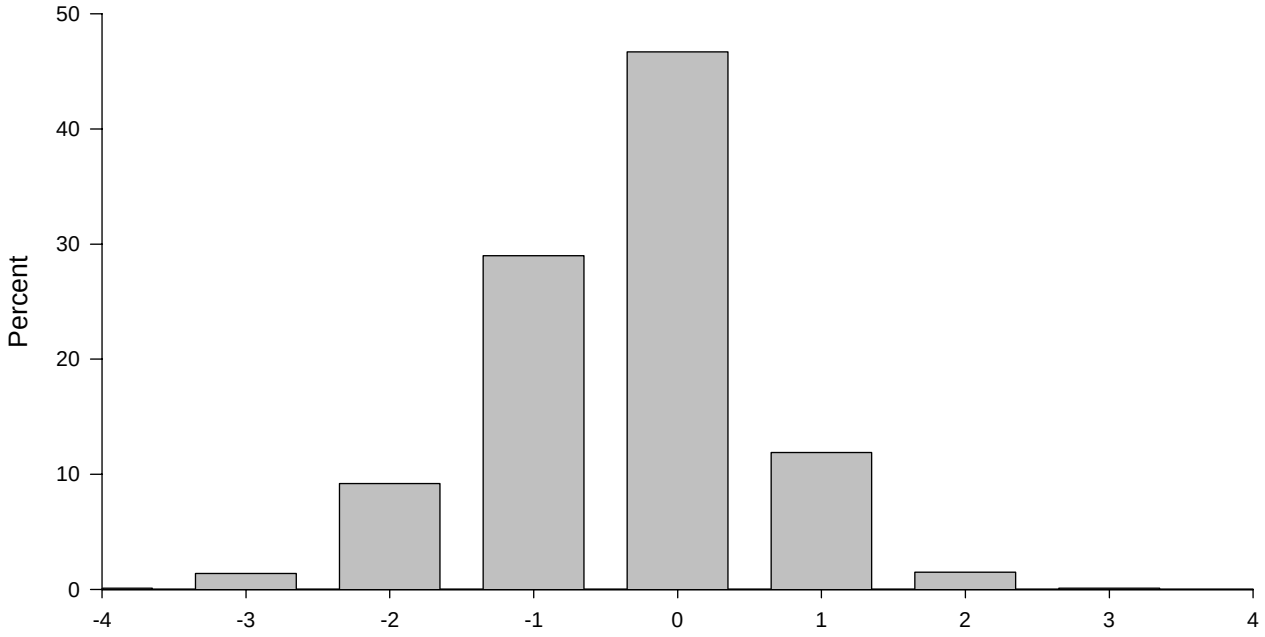
14. Hyams KC, Wignall FS, Roswell R. War syndromes and their evaluation: from the U.S. Civil War to the Persian Gulf War. Ann Intern Med. 1996 Sep 1;125(5):398-405.

Figure 2. Self-assessed health status on post-deployment form, in relation to self-assessed health status pre-deployment, US Armed Forces, September 2002-March 2004.



Pre-form response	Excellent	Very good	Good	Fair	Poor

Figure 3. Distribution of self-assessed health status changes from pre- to post-deployment form, US Armed Forces, September 2002-March 2004.



Change in self-assessment of overall health status, pre- to post-deployment, calculated as: post deployment response - pre-deployment response, using the following scale for health status: 1= "poor"; 2="fair"; 3="good"; 4="very good"; and 5="excellent."

Table 3. Deployment-related "exposure concerns" reported on post-deployment health assessments*, US Armed Forces, Jan 2003-Mar 2004

	Total respondents	Exposure no.	concerns %
Total	408,723	60,987	14.9
Component			
Active	266,277	33,187	12.5
Reserve	142,446	27,800	19.5
Service			
Army	233,325	43,215	18.5
Navy	56,996	3,843	6.7
Air Force	61,111	4,801	7.9
Marine Corps	57,291	9,128	15.9
Age (years)			
<20	14,699	1,163	7.9
20-29	217,708	28,247	13.0
30-39	113,144	19,100	16.9
>39	63,167	12,475	19.7
Gender			
Men	362,712	53,527	14.8
Women	45,973	7,458	16.2
Race/ethnicity			
Black	74,573	11,636	15.6
Hispanic	41,073	6,501	15.8
Other	4,906	967	19.7
White nonhispanic	267,674	39,156	14.6
Grade			
Enlisted	356,654	52,101	14.6
Officer	52,066	8,885	17.1

* Post-deployment health assessments (DD form 2796) with completion dates: 1 January-31 March 2004.

Note: total does not reflect missing responses to "exposure concerns" or missing characteristics.

Table 1. Sentinel reportable events among all beneficiaries[1] at US Army medical facilities cumulative numbers,[2] calendar years 2002 and 2003

Reporting location	Number of reports all events[3]		Food-borne								Vaccine Preventable					
			Campylo-bacter		Giardia		Salmonella		Shigella		Hepatitis A		Hepatitis B		Varicella	
	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003
NORTH ATLANTIC																
Washington, DC Area	240	691	6	.	7	5	7	3	7	3	2	.	.	.	1	2
Aberdeen, MD	57	107	1	.	1	.	.	1	1	.	.	.	1	.	.	.
FT Belvoir, VA	230	302	9	10	5	4	8	11	3	4	.	.	.	.	.	.
FT Bragg, NC	2,272	1,928	11	8	.	.	46	30	62	20	.	.	1	.	.	2
FT Drum, NY	170	211	1	.	.	1	.	.	.	.	.	.	.	.	.	2
FT Eustis, VA	287	508	3	.	.	.	3	1	9	.	.	.	1	.	2	2
FT Knox, KY	233	260	5	3	4	.	4	5	.	.	.	.	.	.	.	1
FT Lee, VA	233	218	.	.	.	.	1	2	.	.	.	.	.	.	.	.
FT Meade, MD	124	120	.	.	1	1	1	.	.	1	.	.	.	.	1	.
West Point, NY	118	86	.	2	.	.	3	2	.	.	2	1	1	1	2	.
GREAT PLAINS																
FT Sam Houston, TX	336	249	.	.	.	.	3	6	.	.	.	.	.	1	.	.
FT Bliss, TX	263	452	.	2	5	4	5	3	2	2	.	.	2	2	.	1
FT Carson, CO	652	695	8	15	8	8	4	3	4	2	.	4	3	.	.	1
FT Hood, TX	2,561	2,019	6	9	.	.	18	29	12	109	.	1	.	1	.	.
FT Huachuca, AZ	70	80	.	.	.	.	1	.	.	.	.	.	.	.	.	.
FT Leavenworth, KS	55	48	.	2	3	.	.	1	1	1	1	.	.	.	.	.
FT Leonard Wood, MO	248	235	.	8	.	.	3	1	.	.	.	.	.	1	4	4
FT Polk, LA	273	225	.	1	.	.	6	3	3	1	.	.	.	3	.	.
FT Riley, KS	302	256	.	4	.	6	1	1	.	.	1	1	1	2	1	.
FT Sill, OK	358	260	1	.	.	.	.	.	5	1	.	.	.	.	.	.
SOUTHEAST																
FT Gordon, GA	260	334	.	.	.	1	.	3	3	.	1	.	2	2	.	.
FT Benning, GA	562	496	.	1	3	6	31	9	2	8	.	.	.	.	3	.
FT Campbell, KY	768	530	4	5	2	9	4	4	2	1	.	.	.	.	3	.
FT Jackson, SC	267	254	.	.	.	.	.	1	.	.	.	1	1	.	1	.
FT Rucker, AL	84	87	1	.	.	.	3	6	2	7	.	3	.	2	.	.
FT Stewart, GA	591	357	1	.	4	.	12	16	3	14	.	.	.	.	1	1
WESTERN																
FT Lewis, WA	792	756	3	3	1	7	6	7	1	3	.	1	.	1	.	.
FT Irwin, CA	70	61	.	.	.	.	.	.	.	.	.	.	1	.	.	.
FT Wainwright, AK	161	209	1	2	1	.	1	1	.	.	.	.	.	.	.	.
OTHER LOCATIONS																
Hawaii	941	1,127	43	24	12	9	14	11	1	4	.	2	2	6	.	2
Europe	2,272	1,595	35	19	.	.	46	20	3	1	2	10	9	1	5	3
Korea	705	639	3	.	.	.	8	2	.	.	1	1	1	1	1	6
Total	**16,555**	**15,395**	**142**	**118**	**57**	**61**	**239**	**182**	**126**	**182**	**10**	**25**	**26**	**24**	**25**	**27**

1. Includes active duty servicemembers, dependents, and retirees.
2. Events reported by April 7, 2004.
3. Seventy events specified by Tri-Service Reportable Events, Version 1.0, July 2000.

Note: Completeness and timeliness of reporting vary by facility.

Source: Army Reportable Medical Events System.

Table 1. (Cont'd) Sentinel reportable events among all beneficiaries[1] at US Army medical facilities, cumulative numbers,[2] calendar years 2002 and 2003

Reporting location	Arthropod-borne				Sexually Transmitted								Environmental			
	Lyme Disease		Malaria		Chlamydia		Gonorrhea		Syphilis[3]		Urethritis[4]		Cold		Heat	
	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003
NORTH ATLANTIC																
Washington, DC Area	5	2	2	2	100	172	23	25	6	3	.	.	.	2	2	.
Aberdeen, MD	2	2	.	.	48	41	3	12	.	.	.	.	.	9	.	.
FT Belvoir, VA	3	2	.	1	157	212	34	44	1	.	.	.	.	.	2	1
FT Bragg, NC	.	1	5	8	1,588	1,312	302	267	1	6	128	112	1	6	113	81
FT Drum, NY	.	.	2	.	113	138	29	27	.	1	.	.	11	4	14	.
FT Eustis, VA	1	.	.	.	212	188	51	44	1	1	.	.	.	.	3	.
FT Knox, KY	.	1	.	.	167	212	48	32	.	.	.	.	.	.	3	1
FT Lee, VA	2	.	.	.	192	142	36	27	.	.	.	.	.	.	2	.
FT Meade, MD	5	.	.	.	98	98	15	20	.	.	2	.	.	.	.	.
West Point, NY	43	37	.	.	19	25	9	3	1	.	.	.	.	1	37	8
GREAT PLAINS																
FT Sam Houston, TX	.	.	.	.	258	181	48	34	1	2	.	.	.	.	2	.
FT Bliss, TX	.	.	.	.	164	283	28	60	1	2	.	.	.	.	1	1
FT Carson, CO	.	.	3	.	454	385	54	40	1	1	64	41	1	3	.	1
FT Hood, TX	.	.	5	3	1,404	1,017	495	302	4	5	446	224	2	5	40	11
FT Huachuca, AZ	.	.	.	1	57	74	10	5	.	.	.	.	.	.	2	.
FT Leavenworth, KS	.	.	1	1	36	38	11	3	.	.	.	.	.	.	.	.
FT Leonard Wood, MO	.	.	1	.	175	184	40	22	.	1	2	.	3	2	12	3
FT Polk, LA	.	.	1	1	182	162	69	45	5	.	.	.	.	.	1	9
FT Riley, KS	.	.	2	.	226	197	53	10	.	.	.	.	12	.	3	4
FT Sill, OK	.	.	2	.	202	148	67	21	.	1	59	32	1	.	19	4
SOUTHEAST																
FT Gordon, GA	2	.	1	2	204	284	32	24	1	5	.	.	.	.	1	2
FT Benning, GA	.	.	1	29	286	267	135	117	1	.	.	.	.	.	94	57
FT Campbell, KY	1	1	3	2	544	385	168	96	1	1	.	.	1	2	24	9
FT Jackson, SC	.	.	.	.	216	186	42	34	1	.	.	.	4	5	2	22
FT Rucker, AL	.	.	1	.	53	47	19	13	.	.	.	1	.	.	5	4
FT Stewart, GA	3	.	1	2	358	174	150	85	2	.	11	35	.	.	42	14
WESTERN																
FT Lewis, WA	.	.	3	2	561	400	86	76	2	.	112	89	.	1	.	2
FT Irwin, CA	.	.	.	.	53	47	12	13	.	.	.	.	.	.	2	.
FT Wainwright, AK	1	.	.	1	125	123	8	26	.	.	.	.	18	35	.	.
OTHER LOCATIONS																
Hawaii	.	.	3	2	666	752	105	135	1	1	.	.	.	.	19	21
Europe	10	8	11	9	1,652	1,145	458	272	6	2	3	1	14	4	8	33
Korea	.	.	20	19	499	492	131	74	1	3	1	9	18	5	14	12
Total	**78**	**54**	**68**	**85**	**11,069**	**9,511**	**2,771**	**2,008**	**38**	**35**	**828**	**544**	**86**	**84**	**467**	**300**

3. Primary and secondary.

4. Urethritis, non-gonococcal (NGU).

Note: Completeness and timeliness of reporting vary by facility.

Source: Army Reportable Medical Events System.

Sentinel reportable events for all beneficiaries[1] at US Army medical facilities, cumulative numbers[2] for calendar years through April 30, 2003 and 2004

Reporting location	Number of reports all events[3]		Food-borne								Vaccine Preventable					
			Campylo-bacter		Giardia		Salmonella		Shigella		Hepatitis A		Hepatitis B		Varicella	
	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004
NORTH ATLANTIC																
Washington, DC Area	105	100	.	.	2	.	2	1	3	.	.	.	.	.	1	3
Aberdeen, MD	25	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.
FT Belvoir, VA	67	83	1	1	.	1	3	1	1	.	.	.	.	.	.	1
FT Bragg, NC	641	575	.	1	.	.	2	5	10	.	.	.	.	.	2	.
FT Drum, NY	83	32	.	.	.	.	.	.	.	.	.	.	.	.	1	.
FT Eustis, VA	96	88	.	.	.	.	1	.	.	.	.	.	.	.	2	.
FT Knox, KY	87	68	.	.	.	3	2	1	.	.	.	.	.	.	.	.
FT Lee, VA	64	64	.	.	.	.	.	.	.	.	.	.	.	.	.	.
FT Meade, MD	44	54	.	.	.	1	.	.	.	.	.	.	.	.	.	.
West Point, NY	11	19	2	1	.	.	1	.	.	.	1	.	1	.	.	.
GREAT PLAINS																
FT Sam Houston, TX	91	92	.	.	.	.	3	2	.	.	.	.	.	.	.	1
FT Bliss, TX	119	118	1	1	3	1	1	2	1	2	.	.	.	.	1	.
FT Carson, CO	195	157	.	1	.	.	2	1	.	1	.	.	.	.	.	.
FT Hood, TX	502	292	1	4	.	.	3	2	2	13	.	.	.	.	.	.
FT Huachuca, AZ	24	42	.	.	.	.	.	.	.	.	.	.	.	.	.	.
FT Leavenworth, KS	18	13	1	.	.	.	.	.	.	.	.	.	.	.	.	.
FT Leonard Wood, MO	87	97	.	.	.	.	.	.	.	.	.	.	.	.	3	.
FT Polk, LA	80	50	.	.	.	.	.	2	.	.	.	.	.	.	.	.
FT Riley, KS	86	73	2	.	1	1	.	.	.	.	.	1	1	.	.	.
FT Sill, OK	95	55	.	.	.	.	.	1	.	1	.	.	.	.	.	.
SOUTHEAST																
FT Gordon, GA	78	25	.	1	.	.	1	1	.	.	.	.	.	.	.	.
FT Benning, GA	116	132	.	.	.	3	1	3	2	.	.	.	.	.	.	.
FT Campbell, KY	178	222	2	1	.	.	3	3	.	1	.	.	.	.	.	2
FT Jackson, SC	15	97	.	.	.	.	.	.	.	.	1	.	.	.	.	.
FT Rucker, AL	17	23	.	.	.	1	.	.	.	.	1	.	.	.	.	.
FT Stewart, GA	114	143	.	1	.	1	1	.	1	2	.	.	.	.	.	.
WESTERN																
FT Lewis, WA	178	187	1	1	2	1	2	1	2	2	.	.	.	.	.	.
FT Irwin, CA	23	28	.	.	.	.	.	.	.	.	.	.	.	.	.	.
FT Wainwright, AK	37	95	.	.	.	.	.	1	.	.	.	1	.	1	.	.
OTHER LOCATIONS																
Hawaii	328	331	5	3	4	4	5	3	2	.	.	.	.	1	.	1
Europe	458	452	8	5	.	.	6	3	.	.	3	.	.	.	.	2
Korea	242	127	.	1	.	.	.	.	.	.	.	.	.	.	.	1
Total	**4,304**	**3,949**	**24**	**22**	**12**	**17**	**39**	**33**	**24**	**22**	**6**	**2**	**2**	**2**	**10**	**11**

1. Includes active duty servicemembers, dependents, and retirees.
2. Events reported by May 7, 2003 and 2004.
3. Seventy conditions specified by Tri-Service Reportable Events, Version 1.0, July 2000.

Note: Completeness and timeliness of reporting vary by facility.

Source: Army Reportable Medical Events System.

NOTICE OF CORRECTION: The current table is a corrected version of hard-copy and prior on-line versions that included counts of cases during current months rather than calendar years to date.

(Cont'd) Sentinel reportable events for all beneficiaries[1] at US Army medical facilities, cumulative numbers[2] for calendar years through April 30, 2003 and 2004

Reporting location	Arthropod-borne				Sexually Transmitted								Environmental			
	Lyme Disease		Malaria		Chlamydia		Gonorrhea		Syphilis[4]		Urethritis[5]		Cold		Heat	
	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004
NORTH ATLANTIC																
Washington, DC Area	.	.	.	.	69	44	5	6	2	1	.	.	1	29	.	.
Aberdeen, MD	.	.	.	.	10	14	6	.	.	.	.	.	9	.	.	.
FT Belvoir, VA	.	.	.	.	50	70	12	7	.	2	.	.	.	.	.	.
FT Bragg, NC	.	.	1	3	466	415	107	95	4	1	42	40	2	3	5	7
FT Drum, NY	.	.	.	4	63	23	14	1	.	.	.	.	4	1	.	.
FT Eustis, VA	.	1	.	.	75	68	16	8	1	.	.	.	.	.	.	.
FT Knox, KY	.	.	.	.	75	61	10	3	.	.	.	.	.	.	.	.
FT Lee, VA	.	.	.	.	48	52	16	12	.	.	.	.	.	.	.	.
FT Meade, MD	.	.	.	.	38	43	6	9	.	.	.	.	.	.	.	.
West Point, NY	1	1	.	.	5	13	.	.	.	.	.	.	.	1	.	3
GREAT PLAINS																
FT Sam Houston, TX	.	.	.	.	66	68	20	9	1	1	.	.	.	.	.	.
FT Bliss, TX	.	.	.	.	83	81	18	17	1	1	.	.	.	.	.	.
FT Carson, CO	.	.	.	.	136	132	18	9	.	1	28	11	2	.	.	.
FT Hood, TX	.	.	.	.	276	181	84	45	.	.	88	38	5	.	3	.
FT Huachuca, AZ	.	.	.	.	23	39	1	3	.	.	.	.	.	.	.	.
FT Leavenworth, KS	.	.	.	.	15	9	1	4	.	.	.	.	.	.	.	.
FT Leonard Wood, MO	.	.	.	1	74	69	7	21	.	.	.	.	2	1	1	2
FT Polk, LA	.	.	.	.	57	38	23	9	.	1	.	.	.	.	.	.
FT Riley, KS	.	.	.	.	77	54	4	10	.	.	.	.	.	5	.	1
FT Sill, OK	.	.	.	.	59	46	14	2	1	1	21	.	.	2	.	.
SOUTHEAST																
FT Gordon, GA	.	.	.	.	67	18	9	2	.	.	.	.	.	.	.	.
FT Benning, GA	.	.	.	2	70	83	42	41	.	.	.	.	.	.	.	.
FT Campbell, KY	.	.	.	.	132	164	38	28	1	.	.	.	2	.	.	1
FT Jackson, SC	.	.	.	.	10	81	.	8	.	.	.	.	4	5	.	.
FT Rucker, AL	.	.	.	.	10	20	4	2	.	.	1	.	.	.	.	.
FT Stewart, GA	.	.	.	.	47	90	30	44	.	.	30	4	.	.	3	.
WESTERN																
FT Lewis, WA	.	1	1	.	95	127	33	16	.	.	37	30	.	1	.	.
FT Irwin, CA	.	.	.	.	18	23	4	5	.	.	.	.	.	.	.	.
FT Wainwright, AK	.	.	.	.	23	34	1	4	.	.	.	.	13	53	.	.
OTHER LOCATIONS																
Hawaii	.	.	.	.	209	235	25	66	.	.	.	.	.	.	3	4
Europe	.	.	1	2	348	320	85	74	1	1	.	.	3	1	.	.
Korea	.	.	.	.	202	102	34	17	.	1	1	.	3	4	.	.
Total	**1**	**3**	**3**	**12**	**2,996**	**2,817**	**687**	**577**	**12**	**11**	**248**	**123**	**50**	**106**	**15**	**18**

4. Primary and secondary.

5. Urethritis, non-gonococcal (NGU).

Note: Completeness and timeliness of reporting vary by facility.

Source: Army Reportable Medical Events System.

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