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Hospitalizations among Active Component Members, U.S. Armed Forces, 2005

This report documents frequencies, rates, and characteristics of hospitalizations of active component members of the U.S. Armed Forces during calendar year 2005 as documented by standardized, automated records maintained in the Defense Medical Surveillance System. The report includes hospitalizations of servicemembers in U.S. military and non-military (contracted care) hospitals since 1994 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 2005, there were 66,260 reports of hospitalizations of active component servicemembers (Table 1)—nearly one-fifth (18.2%) were in non-military (contracted care) facilities (Figure 1). The hospitalization rate (all causes) was 48.1 per 1,000 per year. The rate in 2005 was 7.6% lower than in 2004 and less than half (-51.1%) the rate in 1996 (Figure 1). In general, hospitalization

rates in 2005 continued a trend of gradual decline since 2000 (Figure 1).

Hospitalizations, by illness and injury categories: Since 2001 (in spite of the initiation and conduct of the global war on terrorism), the distribution of hospitalizations of servicemembers by major diagnostic categories has remained remarkably stable (Table 1). For example, between 2001 and 2005, no major diagnostic category (of 16 in the ICD-9-CM) changed its rank order (based on number of hospitalizations) by more than one (Table 1). Also, in 2005 as in 2003 and 2001, three diagnostic categories accounted for more than half of all hospitalizations of servicemembers: pregnancy-related conditions (including labor and delivery) (22.6% of the total), injuries and poisonings (15.4% of the total), and mental disorders (13.4% of the total) (Table 1).

Between 2003 and 2005, hospitalizations declined in each major diagnostic category except skin/subcutaneous tissue disorders (Table 1). Between 2001 and 2005, hospitalizations for skin/subcutaneous tissue disorders increased by 23.5%

Table 1. Hospitalizations, ICD-9 diagnostic categories, U.S. Armed Forces, 2001, 2003, and 2005

Major Diagnostic Category (ICD-9-CM)	Number (Rank)	Number (Rank)	Number (Rank)
Pregnancy complications (630 - 679)	16,732 (1)	17,778 (1)	14,946 (1)
Injury and poisoning (800 - 999)	10,246 (3)	10,987 (2)	10,176 (2)
Mental disorders (290 - 319)	11,010 (2)	10,003 (3)	8,894 (3)
Musculoskeletal system (710 - 739)	6,990 (5)	6,320 (5)	6,235 (4)
Digestive system (520 - 579)	7,398 (4)	7,052 (4)	6,086 (5)
Ill-defined conditions (780 - 799)	4,829 (6)	4,657 (6)	4,080 (6)
Respiratory system (460 - 519)	3,110 (7)	3,301 (7)	2,579 (7)
Genitourinary system (580 - 629)	3,026 (8)	2,991 (8)	2,443 (8)
Circulatory system (390 - 459)	2,158 (9)	2,360 (9)	2,175 (9)
Dermatological diseases (680 - 709)	1,585 (11)	1,892 (11)	1,958 (10)
Neoplasms (140 - 239)	1,958 (10)	1,973 (10)	1,939 (11)
Other (E & V codes)	1,541 (13)	1,518 (12)	1,491 (12)
Infectious and parasitic diseases (001-139)	1,543 (12)	1,481 (13)	1,049 (13)
Nervous system (320 - 389)	1,051 (14)	1,084 (14)	955 (14)
Endocrine, nutrition, immunity (240 - 279)	703 (15)	717 (15)	674 (15)
Congenital anomalies (740 - 759)	291 (17)	319 (16)	298 (16)
Hematologic disorders (280 - 289)	307 (16)	307 (17)	282 (17)

overall (the increase overall was largely attributable to cellulitis/abscess-related hospitalizations) (data not shown). Between 2003 and 2005, the largest absolute decreases in hospitalizations of servicemembers were for pregnancy-related conditions (2005 versus 2003: -2,832), mental disorders (2005 versus 2003: -1,109), and digestive disorders (2005 versus 2003: -966); and the largest proportional decreases were for infectious/parasitic diseases (2005 versus 2003: -29.2%), respiratory disorders (2005 versus 2003: -21.9%), and genitourinary disorders (2005 versus 2003: -18.3%) (Table 1).

Hospitalizations, by gender: In 2005, the hospitalization rate (all causes) was 3.6-times higher among females than males (hospitalization rates, all causes: females: 122.4 per 1,000 person-years [p-yrs]; males: 34.1 per 1,000 p-yrs); however, approximately 61% of all hospitalizations of females were pregnancy-related. Excluding pregnancy-related hospitalizations, the crude hospitalization rate among females (48.2 per 1,000 per year) was approximately 40% higher than among males.

Hospitalization rates were higher among males than females for injuries/poisonings (rate difference [RD]: 2.7 per 1,000 p-yrs), musculoskeletal/connective tissue disorders (RD: 0.5 per 1,000 p-yrs), circulatory disorders (RD: 0.4 per 1,000 p-yrs), skin/subcutaneous tissue disorders (RD: 0.3 per 1,000 p-yrs), and respiratory disorders (RD:

0.04 per 1,000 p-yrs). Rates were higher among females than males for all other major categories of diagnoses. The largest differences in rates between females and males were for genitourinary disorders (RD: 6.3 per 1,000 p-yrs), neoplasms (RD: 3.7 per 1,000 p-yrs), and mental disorders (RD: 3.2 per 1,000 p-yrs).

Relationships between age and hospitalization rates varied across diagnostic categories (Figure 2). For example, hospitalization rates for neoplasms, circulatory disorders, musculoskeletal disorders, and genitourinary disorders increased with age, while hospitalization rates for infectious and parasitic diseases and mental disorders declined (Figure 2). For each category of diagnoses, relationships between age and hospitalization rates were generally similar among males and females (Figure 2).

Most frequent diagnoses: In 2005, six diagnoses (as specified by 3-digit codes of the ICD-9-CM) accounted for more than 1,000 hospitalizations of male servicemembers each: adjustment reactions (n=2,357), affective psychoses (n=1,558), intervertebral disc disorders (n=1,604), acute appendicitis (n=1,379), symptoms involving respiratory system/chest (n=1,523), acute appendicitis (n=1,336), and other cellulitis and abscess (n=1,291) (Table 2). The most frequent diagnoses during hospitalizations of males in 2005 were similar to those in recent prior years.

Figure 1. Rate of hospitalizations by calendar year, U.S. Armed Forces, 1995-2005.

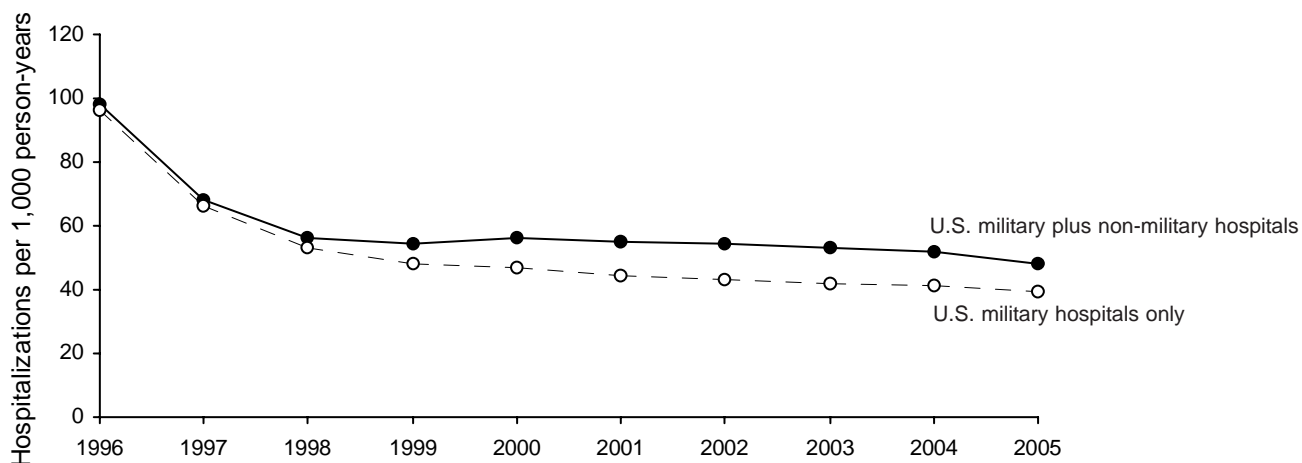
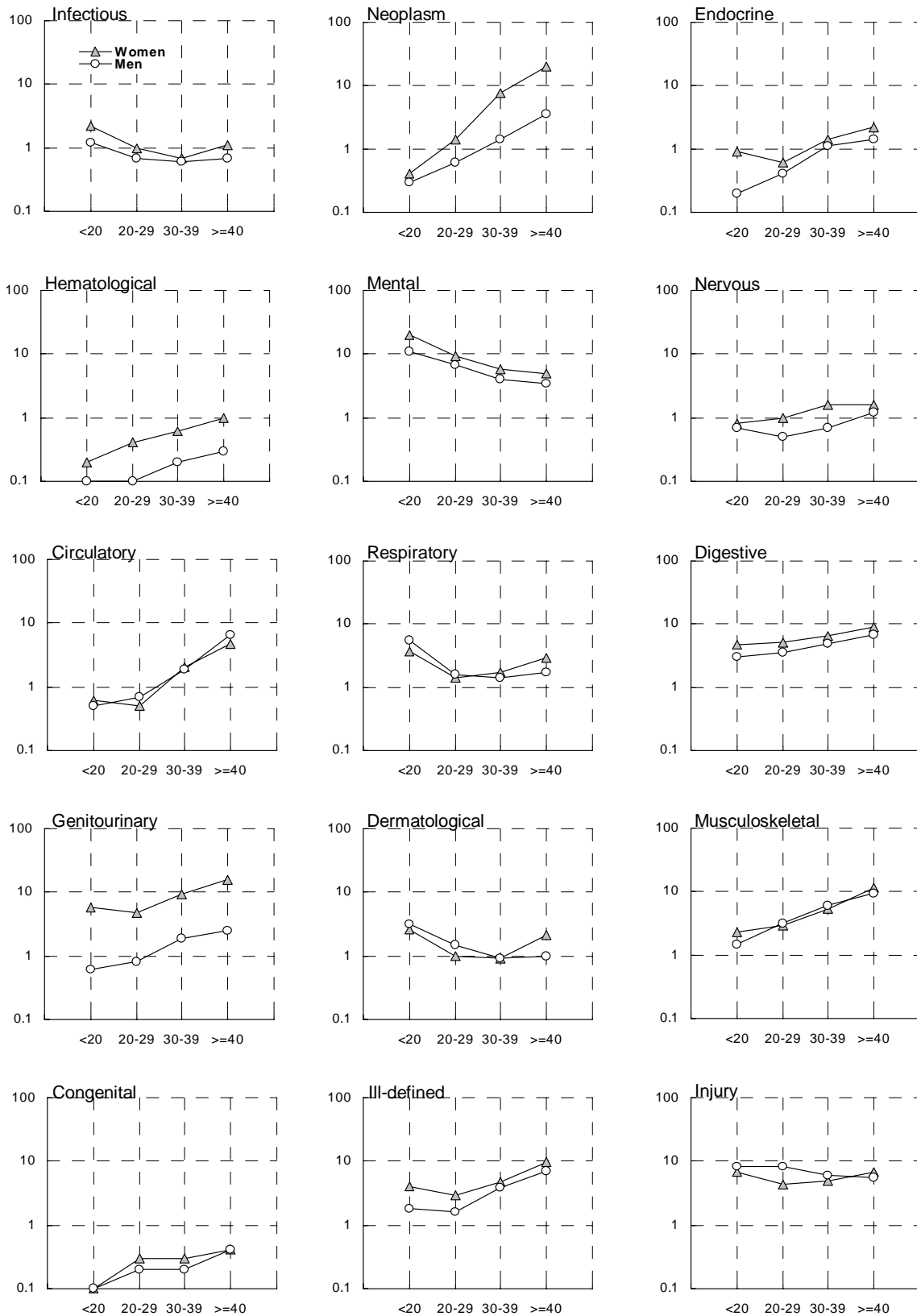


Figure 2. Rate¹ of hospitalizations, by major diagnostic categories, by age and gender, U. S. Armed Forces, 2005.



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

Table 2. Most frequent diagnoses during hospitalization, by major diagnostic category, males, U.S. Armed Forces, 2005

Diagnostic category	No.	%	Diagnostic category	No.	%
Infectious and parasitic diseases (001-139)	832		Digestive system (520 - 579)	4,944	
Meningitis due to enterovirus	154	18.5	Acute appendicitis	1,379	27.9
Intestinal infections due to other organisms	114	13.7	Diseases of esophagus	373	7.5
Viral & chlamydial infection	93	11.2	Inguinal hernia	289	5.8
Infectious mononucleosis	71	8.5	Dentofacial anomalies, including malocclusion	285	5.8
Ill-defined intestinal infections	42	5.0	Diseases of pancreas	282	5.7
Neoplasms (140 - 239)	1,022		Genitourinary system (580 - 629)	1,004	
Cancer of prostate	87	8.5	Calculus of kidney and ureter	358	35.7
Cancer of thyroid gland	63	6.2	Other disorders of male genital organs	121	12.1
Cancer of testis	57	5.6	Acute renal failure	80	8.0
Cancer of brain	50	4.9	Urethral stricture	73	7.3
Other cancer of lymphoid and histiocytic tissue	47	4.6	Other disorders of urethra and urinary tract	63	6.3
Endocrine, nutrition, immunity (240 - 279)	479		Pregnancy complications (630 - 679)		
Diabetes mellitus	187	39.0	-	-	-
Disorders of fluid, electrolyte, acid-base balance	136	28.4	-	-	-
Thyrotoxicosis with or without goiter	21	4.4	-	-	-
Other disorders of pancreatic internal secretion	21	4.4	-	-	-
Nontoxic nodular goiter	19	4.0	-	-	-
Hematologic disorders (280 - 289)	175		Dermatological diseases (680 - 709)	1,717	
Diseases of white blood cells	50	28.6	Other cellulitis and abscess	1,291	75.2
Purpura and other hemorrhagic conditions	30	17.1	Pilonidal cyst	160	9.3
Other diseases of blood/blood-forming organs	30	17.1	Cellulitis and abscess of finger and toe	104	6.1
Aplastic anemia	21	12.0	Other disorders of skin/subcutaneous tissue	24	1.4
Iron deficiency anemias	15	8.6	Other local skin infections/subcutaneous tissue	21	1.2
Mental disorders (290 - 319)	7,037		Musculoskeletal system (710 - 739)	5,407	
Adjustment reaction	2,357	33.5	Intervertebral disc disorders	1,604	29.7
Affective psychoses	1,558	22.1	Internal derangement of knee	701	13.0
Alcohol dependence syndrome	615	8.7	Other derangement of joint	553	10.2
Depressive disorder, nec	495	7.0	Other disorders of bone and cartilage	409	7.6
Neurotic disorders	466	6.6	Peripheral enthesopathies, allied syndromes	279	5.2
Nervous system (320 - 389)	720		Congenital anomalies (740 - 759)	235	
Migraine	114	15.8	Other congenital musculoskeletal anomalies	40	17.0
Epilepsy	56	7.8	Congenital anomalies of urinary system	28	11.9
Other conditions of brain	48	6.7	Anomalies bulbus cordis, cardiac septal closure	25	10.6
Other and unspecified disorders	38	5.3	Other congenital anomalies of limbs	22	9.4
Nerve root and plexus disorders	35	4.9	Other congenital anomalies of heart	19	8.1
Circulatory system (390 - 459)	1,934		Ill-defined conditions (780 - 799)	3,257	
Cardiac dysrhythmias	394	20.4	Involving respiratory system & chest symptoms	1,523	46.8
Other forms of chronic ischemic heart disease	220	11.4	General symptoms	811	24.9
Acute myocardial infarction	186	9.6	Other symptoms involving abdomen and pelvis	419	12.9
Acute pulmonary heart disease	119	6.2	Symptoms involving head and neck	123	3.8
Essential hypertension	93	4.8	Symptoms involving digestive system	84	2.6
Respiratory system (460 - 519)	2,209		Injury and poisoning (800 - 999)	9,148	
Pneumonia, organism unspecified	738	33.4	Other complications of procedures, nec	672	7.3
Peritonsillar abscess	148	6.7	Fracture of ankle	583	6.4
Pneumothorax	148	6.7	Fracture of tibia and fibula	417	4.6
Asthma	120	5.4	Fracture of face bones	407	4.4
Acute infection of multiple or unspec site	97	4.4	Fracture of radius and ulna	321	3.5

Table 3. Most frequent diagnoses during hospitalization, by major diagnostic category, females, U.S. Armed Forces, 2005

Diagnostic category	No.	%	Diagnostic category	No.	%
Infectious and parasitic diseases (001-139)	217		Digestive system (520 - 579)	1,142	
Meningitis due to enterovirus	52	24.0	Acute appendicitis	185	16.2
Viral & chlamydial infection	43	19.8	Dentofacial anomalies, including malocclusion	159	13.9
Intestinal infections due to other organisms	34	15.7	Cholelithiasis	129	11.3
Ill-defined intestinal infections	11	5.1	Other noninfective gastroenteritis and colitis	62	5.4
Herpes simplex	10	4.6	Other disorders of gallbladder	56	4.9
Neoplasms (140 - 239)	917		Genitourinary system (580 - 629)	1,439	
Uterine leiomyoma	526	57.4	Pain & other symptoms with genital organs	211	14.7
Cancer of thyroid gland	55	6.0	Noninflammatory disorders	168	11.7
Benign neoplasm of ovary	49	5.3	Infections of kidney	157	10.9
Cancer of female breast	45	4.9	Menstrual disorder, abnormal bleeding genitalia	156	10.8
Carcinoma in situ of breast & genitourinary system	19	2.1	Inflammatory disorders	139	9.7
Endocrine, nutrition, immunity (240 - 279)	195		Pregnancy complications (630 - 679)	14,934	
Nontoxic nodular goiter	38	19.5	Trauma to perineum and vulva during delivery	3,666	24.5
Disorders of fluid, electrolyte, acid-base balance	37	19.0	Delivery in a completely normal case	1,084	7.3
Obesity and other hyperalimentation	27	13.8	Other conditions complicating pregnancy	1,026	6.9
Thyrotoxicosis with or without goiter	26	13.3	Abnormality of forces of labor	972	6.5
Diabetes mellitus	17	8.7	Maternal abnormality, soft tissues of pelvis	912	6.1
Hematologic disorders (280 - 289)	107		Dermatological diseases (680 - 709)	241	
Iron deficiency anemias	35	32.7	Other cellulitis and abscess	131	54.4
Other and unspecified anemias	18	16.8	Other hypertrophic & atrophic conditions of skin	31	12.9
Purpura and other hemorrhagic conditions	18	16.8	Pilonidal cyst	23	9.5
Diseases of white blood cells	11	10.3	Cellulitis and abscess of finger and toe	10	4.1
Other diseases of blood/blood-forming organs	8	7.5	Erythematous conditions	8	3.3
Mental disorders (290 - 319)	1,857		Musculoskeletal system (710 - 739)	828	
Adjustment reaction	661	35.6	Intervertebral disc disorders	199	24.0
Affective psychoses	537	28.9	Other disorders of bone and cartilage	90	10.9
Depressive disorder, nec	172	9.3	Internal derangement of knee	81	9.8
Neurotic disorders	127	6.8	Other derangement of joint	75	9.1
Alcohol dependence syndrome	106	5.7	Other and unspecified disorders of back	50	6.0
Nervous system (320 - 389)	235		Congenital anomalies (740 - 759)	63	
Migraine	98	41.7	Congenital anomalies of genital organs	8	12.7
Other conditions of brain	17	7.2	Of bulbus cordis, cardiac septal closure	7	11.1
Epilepsy	11	4.7	Other congenital anomalies of digestive system	7	11.1
Multiple sclerosis	10	4.3	Congenital anomalies of respiratory system	6	9.5
Mononeuritis of upper limb, mononeuritis multiplex	8	3.4	Other congenital musculoskeletal anomalies	6	9.5
Circulatory system (390 - 459)	241		Ill-defined conditions (780 - 799)	823	
Cardiac dysrhythmias	42	17.4	Other symptoms involving abdomen and pelvis	247	30.0
Acute pulmonary heart disease	37	15.4	Involving respiratory system & chest symptoms	224	27.2
Essential hypertension	22	9.1	General symptoms	177	21.5
Hemorrhoids	14	5.8	Symptoms involving head and neck	53	6.4
Occlusion of cerebral arteries	12	5.0	Symptoms involving digestive system	46	5.6
Respiratory system (460 - 519)	370		Injury and poisoning (800 - 999)	1,028	
Pneumonia, organism unspecified	75	20.3	Other complications of procedures, nec	159	15.5
Asthma	45	12.2	By analgesics, antipyretics, antirheumatics	73	7.1
Chronic disease of tonsils and adenoids	31	8.4	Fracture of ankle	63	6.1
Peritonsillar abscess	29	7.8	Complications of specific procedures	63	6.1
Acute tonsillitis	22	5.9	Complications affecting specific body systems	46	4.5

In 2005, the diagnoses that caused the most hospitalizations of females overall were associated with pregnancy, labor, and delivery: trauma to perineum and vulva during delivery (n=3,666), delivery in a completely normal case (n=1,084), other current conditions in mother complicating pregnancy (n=1,026), abnormality of forces of labor (n=972), and maternal abnormality of organs and soft tissues of pelvis (n=912) (Table 3). Excluding conditions related to pregnancy, leading causes of hospitalizations of females were adjustment reaction (n=661), affective psychosis (n=537), uterine leiomyoma (n=526), other symptoms involving the abdomen/pelvis (n=247), symptoms involving respiratory system/chest (n=224), pain/other symptoms of genital organs (n=211), and intervertebral disc disorders (n=199) (Table 3). The most frequent diagnoses during hospitalizations of females in 2005 were similar to those in recent prior years.

Duration of hospitalizations: In 2005, the shortest hospitalizations (median duration: 1 day) tended to be those for “signs, symptoms, and ill-defined conditions” and musculoskeletal/connective disorders (Figure 3). The longest hospitalizations (median duration: 5 days) tended to be those for mental

disorders (Figure 3). Median durations of hospitalizations for all other categories of diagnoses were 2-3 days (Figure 3).

In contrast to median lengths of hospitalizations, there was significant variability across diagnostic categories in ranges of durations of hospitalizations (Figure 4). For example, in 2005, one of every 20 hospitalizations for mental disorders and injuries/poisonings were 27 days or longer (Figure 3); in contrast, fewer than one of every 20 hospitalizations for musculoskeletal/connective tissue disorders, genitourinary disorders, “signs, symptoms, and ill-defined conditions,” and pregnancy-related conditions exceeded 7 days. In general, durations (medians and ranges) of hospitalizations of servicemembers have been remarkably stable since 1996 (Figure 4).

Causes, intentions, and activities associated with injuries and poisonings that result in hospitalizations: As in prior years, in 2005, injuries and poisonings accounted for more hospitalizations of U.S. servicemembers than any other category of diagnoses (other than pregnancy-related conditions). Of injury-related hospitalizations with reported causes, approximately 15% were due to intentional injuries (e.g., enemy weapons; suicide gestures/attempts;

**Table 4. Injury hospitalizations by causal agent,¹
U.S. Armed Forces, 2005**

Cause	Number	Percent
Unintentional		
Fall and miscellaneous	1,941	19.1
Complications of medical/surgical	1,345	13.2
Land transport	1,082	10.6
Guns, explosives (includes accidents during war)	754	7.4
Athletics	658	6.5
Poisons and fire	368	3.6
Machinery, tools	311	3.1
Environmental	241	2.4
Air transport	239	2.3
Water transport	25	0.2
Intentional		
Battle casualty	765	7.5
Self-inflicted	322	3.2
Non-battle, inflicted by other (e.g., assault)	162	1.6
Missing/invalid code	1,963	19.3

¹ Causal agents were determined by codes specified in NATO Standardization Agreement (STANAG) No. 2050, subject: Statistical classification of diseases, injuries and causes of death.

fighters, assaults, legal interventions); and of these, approximately 60% were considered “battle casualties” (Table 4). The most frequently reported causes of unintentional injuries/poisonings were “falls and miscellaneous,” complications of medical/surgical care, land transport accidents, guns/

explosives (including accidents during war), and athletics (Table 4).

Data analysis by Robert Agnew, Analysis Group, Army Medical Surveillance Activity.

Figure 3. Length of hospital stay by major diagnostic category, U.S. Armed Forces, 2005.

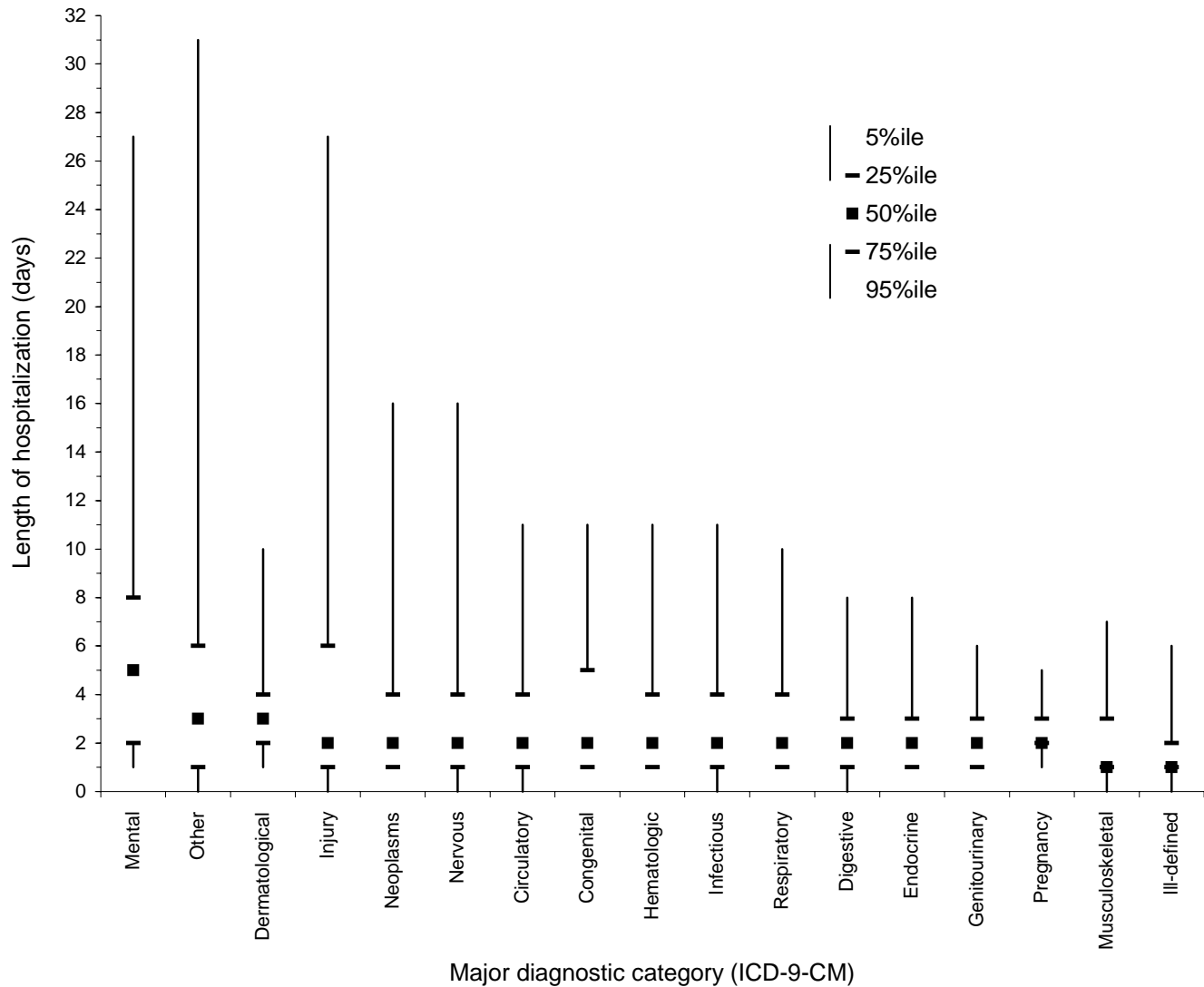
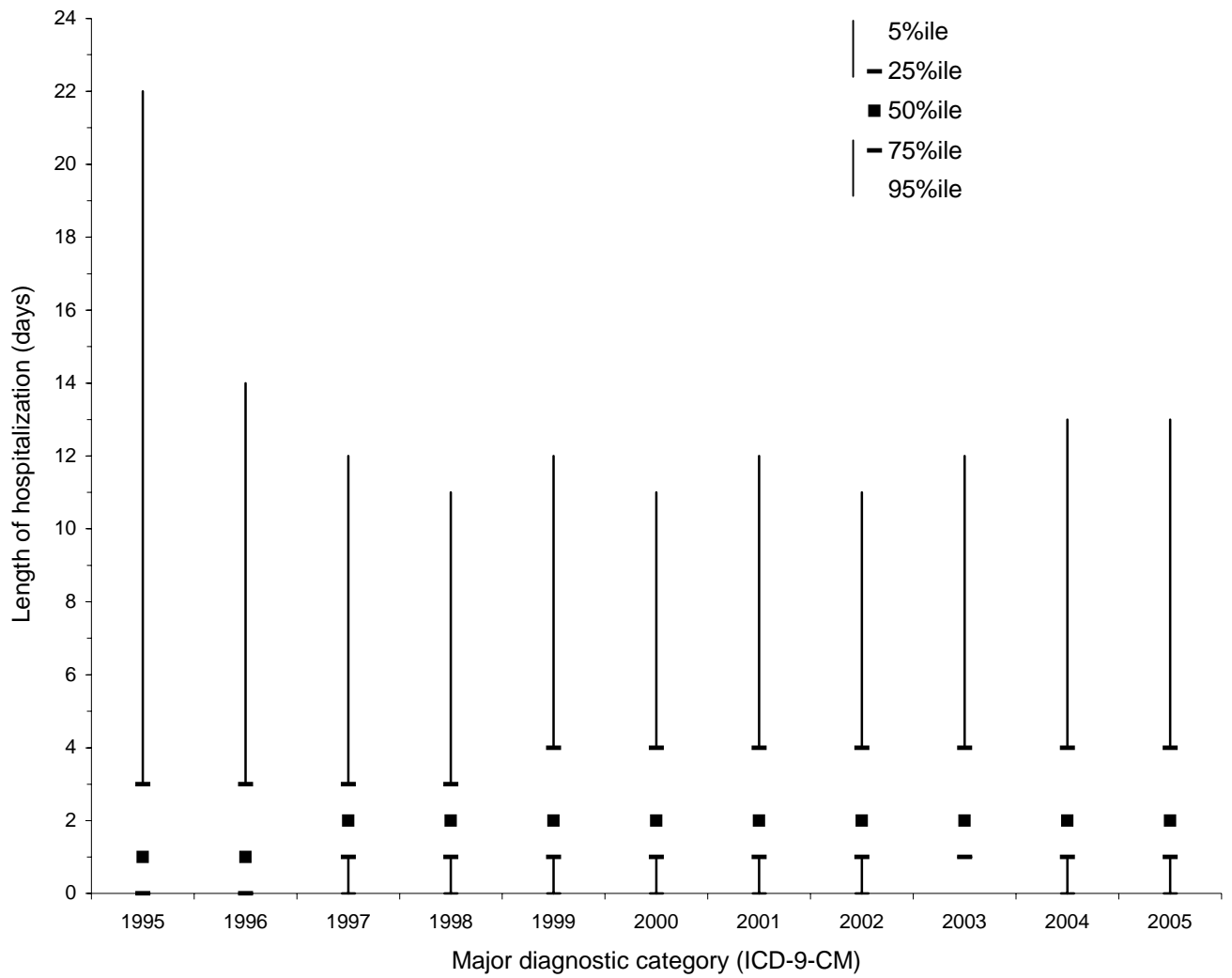


Figure 4. Length of hospital stay, by year, U.S. Armed Forces, 1995-2005.



Ambulatory Visits among Members of Active Components, U.S. Armed Forces, 2005

This report documents frequencies, rates, and characteristics of ambulatory visits of active component members of the U.S. Armed Forces during 2005 (as documented by routine, standardized, automated reports of the Military Health System). For the report, ambulatory visits were categorized based on the first three digits of first listed (“primary”) diagnosis codes (International Classification of Diseases, 9th revision, clinical modifications) on 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 data for the report were acquired from the Defense Medical Surveillance System

Frequencies, rates, and trends. During 2005, there were 12,255,437 reports of ambulatory visits of active component servicemembers (Table 1). The crude rate (all causes) was 8,898.9 visits per 1,000 person-years (p-yrs). The ambulatory visit rate in 2005 was slightly lower (-0.4%) than the rate in 2004 (Figure 1).

Distribution of visits, by diagnostic categories. For the past 5 years, the distribution of ambulatory visits in relation to major diagnostic categories has been remarkably stable (Table 1). The only category with a significant change in relative rank of associated ambulatory visits was “signs, symptoms, and ill-defined conditions”—the category had the fifth, third, and seventh most reported visits in 2001, 2003, and 2005, respectively (Table 1).

In 2005, nearly half (48.7%) of all ambulatory visits were for “other contact with health services.” This category (indicated by “V” codes of the ICD-9-CM) includes health care not related to a current illness or injury (e.g., routine and pre-deployment immunizations, management of normal pregnancies, routine physical examinations, health promotion counseling, pre- and post-deployment screening). For this category, in 2005, there were 41.7% more reported visits than in 2001 and nearly one million more reported visits than in 2003 (Table 1).

Among illness and injury-related categories, the five that accounted for the most ambulatory visits

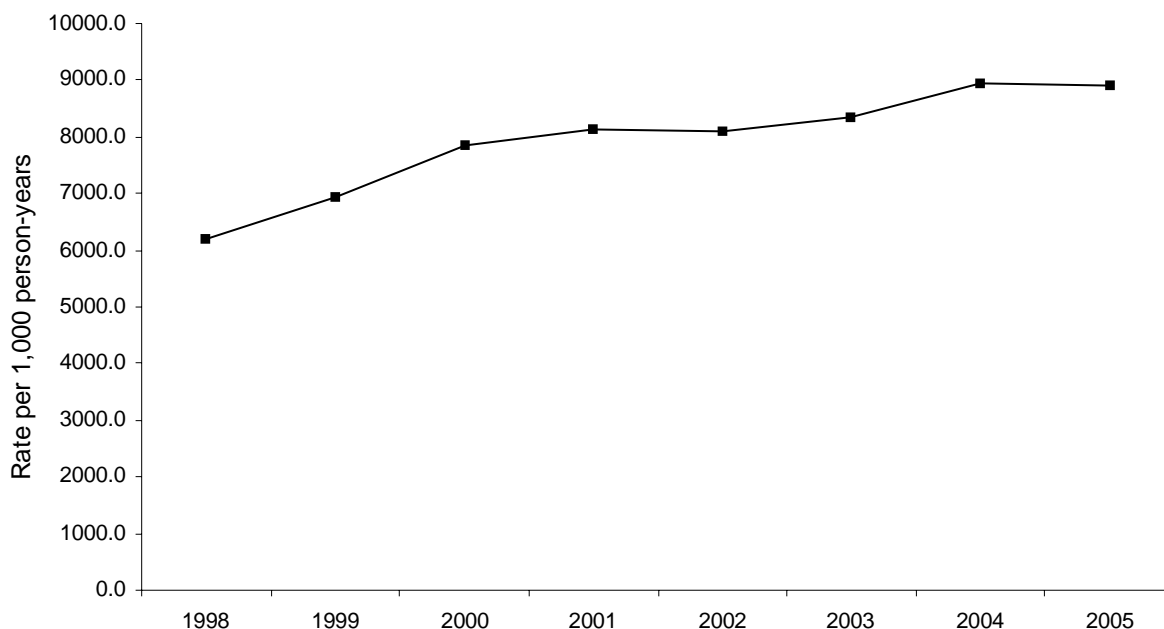
were musculoskeletal/connective tissue disorders (22.9%), injuries/poisonings (12.1%), respiratory diseases (11.1%), nervous system/sense organ disorders (10.6%), and mental disorders (10.1%). Of note, in 2005, nearly half (46.1%) of all illness/injury-related visits were due to musculoskeletal/connective tissue disorders, injuries/poisonings, and respiratory illnesses (Table 1).

Between 2003 and 2005, the largest absolute and relative increases in illness/injury-related visits were for mental disorders (change, 2003 to 2005: +47,481 visits; +8.1%), skin/subcutaneous tissue disorders (change, 2003 to 2005: +18,255 visits; +5.8%), and circulatory disorders (change, 2003 to 2005: +7,129 visits; +5.5%). The largest absolute and relative decreases during the same period were for signs, symptoms, and ill-defined conditions (change, 2003 to 2005: -281,217 visits; -31.9%), injuries and poisonings (change, 2003 to 2005: -99,464 visits; -11.6%), infectious and parasitic diseases (change, 2003 to 2005: -51,466 visits; -16.4%), and genitourinary diseases (change, 2003 to 2005: -33,365 visits; -13.7%) (Table 1).

Ambulatory visits, by gender: During 2005, males accounted for approximately three-fourths (74.8%) of all illness/injury-related visits; yet, the crude rate among males (3,999.5 per 1,000 p-yrs) was approximately half the rate among females (rate: 7,886.6 per 1,000 p-yrs). Rates were higher among females than males for every category of diagnoses (Figure 2).

Among males, the most frequently reported 3-digit level illness/injury-related diagnoses were other/unspecified disorders of joints (n=278,975), disorders of refraction and accommodation (n=260,999), other/unspecified disorders of the back (n=225,935), acute respiratory infections of multiple/unspecified sites (n=195,444), adjustment reaction (n=101,829), and alcohol dependence syndrome (n=100,803) (Table 2).

Among females, the most frequently reported 3-digit level diagnoses were other/unspecified disorders of joints (n=84,113), other/unspecified disorders of the back (n=66,301), disorders of

Figure 1. Rate of ambulatory visits by calendar year, U.S. Armed Forces, 1998-2005.**Table 1. Ambulatory visits, ICD-9 diagnostic categories, U.S. Armed Forces, 2001, 2003, and 2005.**

Major Diagnostic Category (ICD-9-CM)	2001		2003		2005	
	Number	(Rank)	Number	(Rank)	Number	(Rank)
Other (V and E codes)	4,212,101	(1)	4,999,420	(1)	5,965,147	(1)
Musculoskeletal system (710 - 739)	1,668,038	(2)	1,471,635	(2)	1,442,981	(2)
Injury and poisoning (800 - 999)	1,012,771	(3)	858,065	(4)	758,601	(3)
Respiratory system (460 - 519)	746,965	(4)	724,536	(5)	697,706	(4)
Nervous system (320 - 389)	654,944	(6)	701,572	(6)	668,599	(5)
Mental disorders (290 - 319)	568,786	(7)	589,441	(7)	636,922	(6)
Ill-defined conditions (780 - 799)	744,485	(5)	882,555	(3)	601,338	(7)
Dermatological diseases (680 - 709)	295,962	(8)	315,759	(8)	334,014	(8)
Infectious and parasitic diseases (001-139)	291,818	(9)	313,049	(9)	261,583	(9)
Digestive system (520 - 579)	224,447	(11)	229,809	(11)	223,897	(10)
Genitourinary system (580 - 629)	236,851	(10)	244,232	(10)	210,867	(11)
Circulatory system (390 - 459)	129,419	(12)	130,698	(12)	137,827	(12)
Endocrine, nutrition, immunity (240 - 279)	122,119	(13)	121,683	(13)	117,646	(13)
Pregnancy complications (630 - 677)	66,764	(15)	89,005	(14)	82,323	(14)
Neoplasms (140 - 239)	84,952	(14)	87,225	(15)	79,828	(15)
Congenital anomalies (740 - 759)	21,203	(16)	21,293	(16)	21,850	(16)
Hematologic disorders (280 - 289)	16,134	(17)	15,967	(17)	14,308	(17)

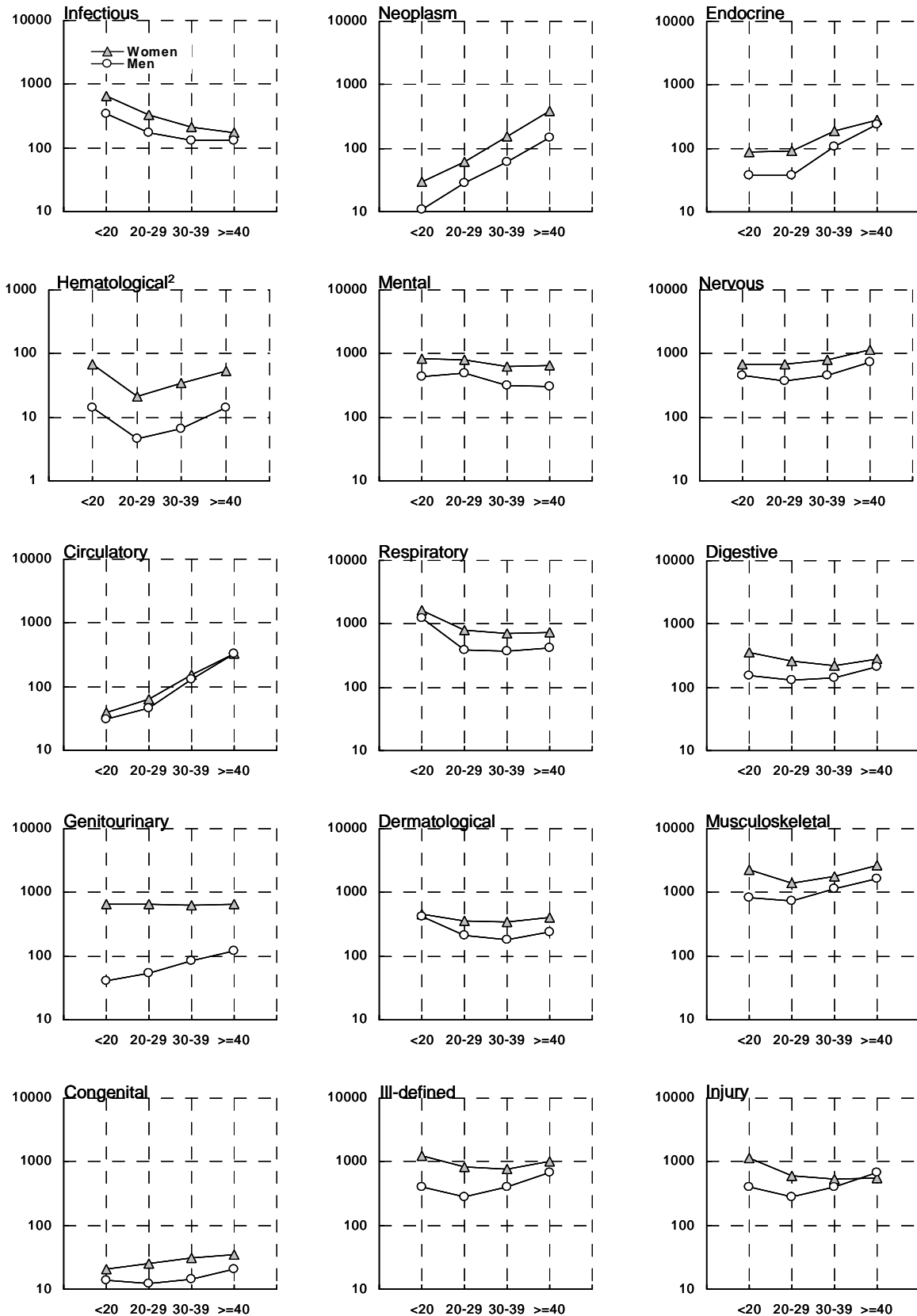
Table 2. Most frequent diagnoses during ambulatory visits by major diagnostic category, males, U.S. Armed Forces, 2005

Diagnostic category	No.	%	Diagnostic category	No.	%
Infectious and parasitic diseases (001-139)	198,408		Digestive system (520 - 579)	171,344	
Viral & chlamydial infection	48,920	24.7	Other noninfective gastroenteritis and colitis	48,212	28.1
Other diseases due to viruses and chlamydia	37,437	18.9	Diseases of esophagus	27,701	16.2
Dermatophytosis	30,824	15.5	Inguinal hernia	12,738	7.4
Intestinal infections due to other organisms	15,817	8.0	Gastritis and duodenitis	8,912	5.2
Streptococcal sore throat and scarlatina	9,623	4.9	Functional digestive disorders, nec	7,920	4.6
Neoplasms (140 - 239)	57,753		Genitourinary system (580 - 629)	79,803	
Benign neoplasm of skin	10,831	18.8	Calculus of kidney and ureter	12,739	16.0
Lipoma	8,352	14.5	Other disorders of male genital organs	10,998	13.8
Of uncertain behavior & unspec sites & tissues	5,718	9.9	Other disorders of urethra and urinary tract	10,622	13.3
Neoplasm of unspecified nature	3,709	6.4	Orchitis and epididymitis	9,498	11.9
Other cancer of skin	2,353	4.1	Infertility, male	5,320	6.7
Endocrine, nutrition, immunity (240 - 279)	91,111		Pregnancy complications (630 - 677)		
Disorders of lipid metabolism	34,444	37.8	-	-	-
Diabetes mellitus	16,249	17.8	-	-	-
Obesity and other hyperalimentation	14,185	15.6	-	-	-
Disorders of fluid, electrolyte, acid-base balance	6,659	7.3	-	-	-
Gout	5,413	5.9	-	-	-
Hematologic disorders (280 - 289)	8,124		Dermatological diseases (680 - 709)	259,915	
Other and unspecified anemias	1,592	19.6	Other cellulitis and abscess	48,988	18.8
Hereditary hemolytic anemias	1,586	19.5	Contact dermatitis and other eczema	40,632	15.6
Other diseases of blood/blood-forming organs	1,485	18.3	Diseases of sebaceous glands	31,958	12.3
Diseases of white blood cells	1,080	13.3	Diseases of hair and hair follicles	29,992	11.5
Purpura and other hemorrhagic conditions	719	8.9	Diseases of nail	16,366	6.3
Mental disorders (290 - 319)	487,165		Musculoskeletal system (710 - 739)	1,108,307	
Adjustment reaction	101,829	20.9	Other and unspecified disorders of joint	278,975	25.2
Alcohol dependence syndrome	100,803	20.7	Other and unspecified disorders of back	225,935	20.4
Nondependent abuse of drugs	83,294	17.1	Peripheral enthesopathies & allied syndromes	91,899	8.3
Neurotic disorders	50,420	10.3	Other disorders of soft tissues	74,251	6.7
Affective psychoses	43,312	8.9	Nonallopathic lesions, nec	71,281	6.4
Nervous system (320 - 389)	519,028		Congenital anomalies (740 - 759)	16,429	
Disorders of refraction and accommodation	260,999	50.3	Certain congenital musculoskeletal deformities	4,903	29.8
Disorders of conjunctiva	33,670	6.5	Other congenital musculoskeletal anomalies	2,452	14.9
Hearing loss	29,222	5.6	Congenital anomalies of the integument	2,389	14.5
Migraine	18,591	3.6	Other congenital anomalies of limbs	1,671	10.2
Suppurative and unspecified otitis media	15,789	3.0	Congenital anomalies of genital organs	780	4.7
Circulatory system (390 - 459)	116,222		Ill-defined conditions (780 - 799)	427,818	
Essential hypertension	56,581	48.7	General symptoms	94,989	22.2
Hemorrhoids	12,915	11.1	Symptoms involving respiratory system & chest	93,768	21.9
Cardiac dysrhythmias	9,285	8.0	Other symptoms involving abdomen and pelvis	45,902	10.7
Diseases of capillaries	7,135	6.1	Symptoms involving head and neck	38,590	9.0
Varicose veins of other sites	3,874	3.3	Symptoms involving digestive system	35,953	8.4
Respiratory system (460 - 519)	529,876		Injury and poisoning (800 - 999)	631,828	
Acute infection of multiple or unspec site	195,444	36.9	Sprains and strains of ankle and foot	75,066	11.9
Allergic rhinitis	60,483	11.4	Sprains and strains of knee and leg	62,326	9.9
Acute pharyngitis	55,765	10.5	Sprains/strains of other/unspec parts of back	54,609	8.6
Acute bronchitis and bronchiolitis	32,061	6.1	Sprains/strains of shoulder and upper arm	31,058	4.9
Acute sinusitis	30,707	5.8	Other and ill-defined sprains and strains	26,104	4.1

Table 3. Most frequent diagnoses during ambulatory visits by major diagnostic category, females, U.S. Armed Forces, 2005

Diagnostic category	No.	%	Diagnostic category	No.	%
Infectious and parasitic diseases (001-139)	63,175		Digestive system (520 - 579)	52,553	
Viral & chlamydial infection	17,933	28.4	Other noninfective gastroenteritis and colitis	18,681	35.5
Other diseases due to viruses and chlamydia	8,138	12.9	Functional digestive disorders, nec	6,947	13.2
Candidiasis	8,043	12.7	Diseases of esophagus	6,126	11.7
Dermatophytosis	5,509	8.7	Gastritis and duodenitis	3,530	6.7
Intestinal infections due to other organisms	4,956	7.8	Dentofacial anomalies, including malocclusion	1,638	3.1
Neoplasms (140 - 239)	22,075		Genitourinary system (580 - 629)	131,064	
Uterine leiomyoma	3,567	16.2	Other disorders of urethra and urinary tract	18,551	14.2
Benign neoplasm of skin	3,468	15.7	Inflammatory disease of cervix, vagina and vulva	18,309	14.0
Cancer of female breast	3,294	14.9	Menstrual disorder, other abnormal bleeding	16,191	12.4
Of uncertain behavior, oth & unspec sites & tissues	1,546	7.0	Pain & other symptoms associated with genitalia	15,715	12.0
Neoplasm of unspecified nature	1,162	5.3	Noninflammatory disorders of cervix	15,252	11.6
Endocrine, nutrition, immunity (240 - 279)	26,535		Pregnancy complications (630 - 677)	82,238	
Obesity and other hyperalimentation	7,031	26.5	Other conditions in mother complicating pregnancy	9,977	12.1
Acquired hypothyroidism	4,256	16.0	Early or threatened labor	8,993	10.9
Disorders of lipid metabolism	2,871	10.8	Other complications of pregnancy, nec	8,548	10.4
Disorders of fluid, electrolyte, acid-base balance	2,437	9.2	Hemorrhage in early pregnancy	5,876	7.1
Diabetes mellitus	1,960	7.4	Hypertension complications, childbirth & puerperium	4,866	5.9
Hematologic disorders (280 - 289)	6,184		Dermatological diseases (680 - 709)	74,099	
Other and unspecified anemias	2,306	37.3	Diseases of sebaceous glands	13,153	17.8
Iron deficiency anemias	1,535	24.8	Contact dermatitis and other eczema	12,808	17.3
Other diseases of blood and blood-forming organs	572	9.2	Other cellulitis and abscess	8,159	11.0
Hereditary hemolytic anemias	441	7.1	Diseases of hair and hair follicles	5,718	7.7
Other deficiency anemias	431	7.0	Other disorders of skin and subcutaneous tissue	5,649	7.6
Mental disorders (290 - 319)	149,757		Musculoskeletal system (710 - 739)	334,674	
Adjustment reaction	39,088	26.1	Other and unspecified disorders of joint	84,113	25.1
Affective psychoses	25,506	17.0	Other and unspecified disorders of back	66,301	19.8
Neurotic disorders	21,950	14.7	Other disorders of soft tissues	27,905	8.3
Depressive disorder, nec	19,923	13.3	Nonallopathic lesions, nec	27,377	8.2
Alcohol dependence syndrome	11,752	7.8	Peripheral enthesopathies and allied syndromes	22,169	6.6
Nervous system (320 - 389)	149,571		Congenital anomalies (740 - 759)	5,421	
Disorders of refraction and accommodation	66,142	44.2	Congenital anomalies of the integument	1,359	25.1
Migraine	20,381	13.6	Certain congenital musculoskeletal deformities	1,339	24.7
Disorders of conjunctiva	9,767	6.5	Other congenital anomalies of limbs	697	12.9
Mononeuritis of upper limb, mononeuritis multiplex	5,488	3.7	Other congenital musculoskeletal anomalies	475	8.8
Suppurative and unspecified otitis media	4,500	3.0	Congenital anomalies of urinary system	213	3.9
Circulatory system (390 - 459)	21,605		Ill-defined conditions (780 - 799)	173,520	
Essential hypertension	7,705	35.7	Other symptoms involving abdomen and pelvis	30,267	17.4
Diseases of capillaries	2,815	13.0	Respiratory system & other chest symptoms	24,979	14.4
Hemorrhoids	2,769	12.8	Abnormal histological/immunological findings	22,972	13.2
Cardiac dysrhythmias	1,937	9.0	General symptoms	22,153	12.8
Varicose veins of lower extremities	1,117	5.2	Symptoms involving head and neck	20,016	11.5
Respiratory system (460 - 519)	167,830		Injury and poisoning (800 - 999)	126,773	
Acute infection of multiple or unspec site	60,287	35.9	Sprains and strains of ankle and foot	15,957	12.6
Allergic rhinitis	23,460	14.0	Sprains/strains of other/unspec parts of back	14,791	11.7
Acute pharyngitis	18,000	10.7	Sprains and strains of knee and leg	13,983	11.0
Acute sinusitis	12,625	7.5	Other and ill-defined sprains and strains	6,370	5.0
Asthma	10,910	6.5	Certain adverse effects, nec	5,509	4.3

Figure 2. Rate¹ of ambulatory visits, by major diagnostic category, by age and gender, U.S. Armed Forces, 2005.



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

² Scale differs from others.

refraction and accommodation (n=66,142), acute respiratory infection of multiple/unspecified sites (n=60,287), adjustment reaction (n=39,088), and other symptoms involving the abdomen and pelvis (n=30,267) (Table 3).

For most major diagnostic categories, relationships between age and visit rates were similar among males and females (Figure 2). For example, among both males and females, visit rates of infectious and parasitic diseases and respiratory disorders declined with age, while rates of neoplasms, circulatory disorders, and “endocrine, metabolic, and nutritional disorders” sharply increased with age (Figure 2). Of note, rates of genitourinary disorders did not significantly vary with age among females but steadily increased with age among males (Figure 2).

Dispositions after ambulatory visits: Most servicemembers (80.3%) who received ambulatory care for illnesses/injuries were returned to duty without limitations; only 4.5% of illness/injury-related visits resulted in “convalescence in quarters” dispositions. The diagnostic categories with the highest prevalences of lost or limited duty (i.e., “limited duty” or “convalescence in quarters” dispositions) were injuries and poisonings (33.6%), musculoskeletal and connective tissue disorders (29.1%), digestive disorders (25.1%), and respiratory illnesses (23.7%) (data not shown). Of note, respiratory illnesses accounted for more than 2.4-times more convalescence in quarters dispositions (n=81,541) than any other category of diagnoses (data not shown).

Editorial comment: In the past five years, the numbers of reports of ambulatory visits (all causes) of U.S. servicemembers has gradually increased—largely due to a sharp increase in reports of “other contact with health services.” Of note in this regard, between 2001

and 2005, reports of visits for other than illnesses/injuries (e.g., immunizations, physical examinations, health screening) increased by 41.5% while illness/injury-related visits declined by 8.6%. This is not surprising because, in the past 5 years, servicemembers have had numerous immunizations, screening examinations (e.g., tuberculosis, leishmaniasis, mental health), pre- and post-deployment medical assessments, and other encounters with medical providers in relation to service in Afghanistan and Iraq. On the other hand, ambulatory visits for illnesses and injuries that occur during deployments are not reflected in this report.

In recent years, in spite of the initiation and conduct of a global war on terrorism, there has been remarkable consistency in the nature and distribution of illness/injury-related ambulatory visits of servicemembers. For example, in the past 5 years, the rankings of major illness/injury-related categories based on attributable visits have been remarkably stable. With the exception of signs, symptoms, and ill-defined conditions (which has sharply declined in numbers of visits and rank order), the same categories (in the same order) have accounted for the most visits for the past five years: musculoskeletal/connective tissue disorders, injuries/poisoning; respiratory illnesses; nervous system/sensory disorders; and mental disorders. In 2001, 2003, and 2005, these five categories together accounted for 68%, 64%, and 67%, respectively, of all illness/injury-related visits. Of note, between 2001 and 2005, numbers of visits declined for musculoskeletal/connective tissue disorders (-14%), injuries/poisoning (-25%), and respiratory illnesses (-7%) but increased for nervous system/sensory disorders (+2%) and mental disorders (+12%). Prevention efforts should continue to focus on these areas.

Data analysis by Robert Agnew, Analysis Group, Army Medical Surveillance Activity.

Estimates of Absolute and Relative Morbidity Burdens Attributable to Various Illnesses and Injuries, U.S. Armed Forces, 2005

Priorities and resources for primary, secondary, and tertiary illness and injury prevention activities inevitably depend on perceptions of relative “importance.” Several classification systems and morbidity measures have been developed to quantify the “public health burdens” that are attributable to various illnesses and injuries in defined populations and settings. Not surprisingly, different classification systems and morbidity measures lead to different rankings of illness and injury-specific burdens. For example, in a given population and setting, the illnesses and injuries that account for the most hospitalizations likely 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, have the most debilitating or long-lasting effects, and so on. 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 and/or causes.

This report is the sixth in a series of *MSMR* articles¹⁻⁵ that use several measures to estimate health care burdens attributable to various illnesses and injuries among members of the U.S. Armed Forces.

Methods: For this report (as for previous *MSMR* reports regarding the same subject), we defined illnesses and injuries by grouping related ICD-9-CM coded diagnoses (at the 3-digit level) based on a modified version of the classification system developed for the Global Burden of Disease (GBD) Study.⁶ In general, the system groups diagnoses that have common pathophysiologic or etiologic bases and/or significant international health policymaking importance. For our purposes, we isolated some diagnoses (e.g., mental disorders) that were grouped with others in the GBD system to increase military relevance, and we categorized injuries by anatomic sites rather than nominal causes (because causes are not routinely reported in military outpatient records).

To estimate the health care burdens attributable to various illnesses and injuries, we

summarized the inpatient and outpatient experiences of all active component servicemembers during 2005 to estimate the total numbers of medical encounters for and servicemembers affected by each illness and injury. In addition, we quantified the total hospital bed-days associated with each illness and injury as an indicator of the relative severities and health care costs attributable to them.

Medical encounters, overall: During 2005, upper respiratory infections, injuries of the back/abdomen, and “all other signs and symptoms” were the leading causes of medical encounters among active duty servicemembers (Table 1). Eleven conditions—including injuries of the back/abdomen, knee, foot/ankle, and arm/shoulder—accounted for more than half (51%) of the total illness/injury-related medical encounters during the year (Table 1).

Individuals affected: As in recent years, in 2005, more servicemembers received medical care for upper respiratory infections than any other condition (Table 1). Also, as in recent years, disorders of refraction/accommodation, “all other signs and symptoms,” injuries of the back/abdomen, and “all other musculoskeletal diseases” affected the next highest numbers of servicemembers (Table 1). Four of the 10 conditions that affected the most servicemembers were injuries: of the back/abdomen, foot/ankle, “unspecified,” and knee (Table 1).

Hospital bed-days: During 2005, deliveries of newborn infants, mood disorders, complications of pregnancy, and head/neck injuries were the leading sources of hospital bed-days (Table 1). Ten conditions—of which three were mental disorders (mood disorder, adjustment reaction, and substance abuse disorder), three were injuries (head/neck, back/abdomen, and leg), and two were pregnancy-related (delivery of newborn and complications)—accounted for more than half (53%) of the total hospital bed-days during the year (Table 1).

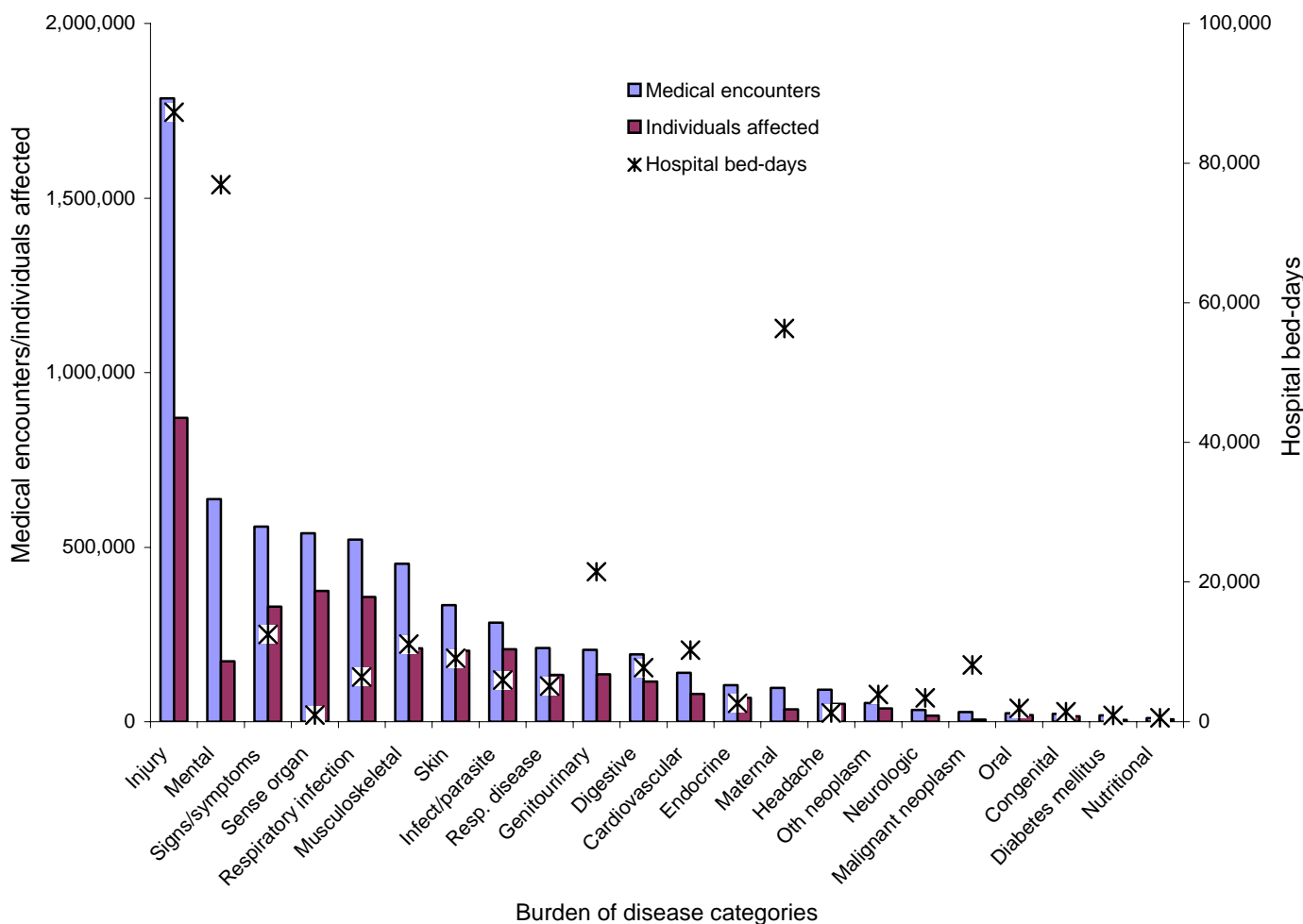
Relationships between health care burden indicators: As in the past, there was a strong correlation between

the number of medical encounters attributable to various conditions and the number of individuals affected by them (linear regression, total medical encounters = 1.87 x individuals affected, $R^2=0.91$). In contrast, there were not strong relationships between hospital bed-days attributable to various conditions and either individuals affected by ($R^2=0.08$) or medical encounters attributable to ($R^2=0.16$) the conditions. Thus, in 2005 as in prior years, unique insights into morbidity burdens may be gained by assessing: hospital bed-days attributable to various conditions; and either numbers of individuals affected by or medical encounters attributable to various conditions.

Editorial comment: Illnesses and injuries are burdens to the U.S. 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 a significant degree, prevention priorities, practices, research activities, and associated resources should target illnesses and injuries that account for the largest morbidity burdens.

As in past years, the summaries presented in this issue of the *MSMR* document that relative rankings of illnesses and injuries based on the health care burdens attributable to them significantly vary based on criteria used for grouping diagnoses (e.g.,

Figure 1. Medical encounters, individuals affected, and hospital bed-days, by burden of disease categories, U.S. Armed Forces, 2005.



ICD-9-CM, Global Burden of Disease Classifications) and methods used for quantifying associated burdens (e.g., medical encounters, individuals affected, hospital bed-days). Also, as in the past, a remarkably small number of conditions—notable injuries, pregnancy-related conditions, and mental (including substance abuse) disorders—accounted for most of the total health care burden in 2005, regardless of how it is measured. For example, during calendar year 2005, 11 (of 126) conditions accounted for more than half of all medical encounters, and 10 conditions accounted for more than half of all hospital bed-days. Of note in this regard, only injuries of the back/abdomen were among the ten leading causes of both medical encounters and hospital bed-days.

Throughout military history, injuries and respiratory infectious diseases have been leading causes of morbidity and lost duty time among servicemembers.^{7,8} In 2005 in the U.S. Armed Forces, 12 conditions were among the top 25 in all three burden-related rankings. Of these, 7 were injuries (to the back/abdomen; knee; foot/ankle; arm/shoulder; unspecified; head/neck; hand/wrist); one was respiratory infection-related (lower respiratory infections); and the others were non-specific groups of related diagnoses (“all other” musculoskeletal, skin, digestive, and genito-urinary diseases) (Table 1). Clearly, the prevention of injuries (of all types) and of respiratory infections (especially those that are clinically virulent and efficiently transmitted) should be focuses of military public health and force health protection programs.

In summary, this analysis, like those of recent years, documents that a relatively few illnesses and injuries account for most of the total health care burden among U.S. servicemembers. Illnesses and

injuries that account for disproportionately large health care burdens (regardless of the metric used to measure it) should be targeted to determine their susceptibilities to primary, secondary, and tertiary prevention efforts and given high priorities for prevention resources.

Data analysis by Stephen Taubman, Analysis Group, Army Medical Surveillance Activity.

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Table 1. Health care burdens attributable to various diseases and injuries, U.S. Armed Forces, 2005

Category ¹	Medical encounters ²		Individuals affected ³		Hospital bed-days	
	No.	Rank	No.	Rank	No.	Rank
Injury and poisoning						
Back, abdomen	380,254	(2)	157,415	(4)	13,805	(6)
Knee	298,032	(6)	122,034	(10)	4,349	(22)
Foot, ankle	284,666	(7)	140,571	(6)	7,084	(14)
Arm and shoulder	227,587	(9)	93,785	(12)	8,651	(12)
Unspecified injury	190,163	(12)	127,512	(8)	5,446	(19)
Head, neck	135,317	(15)	72,769	(14)	17,245	(4)
Hand, wrist	118,849	(18)	67,798	(16)	3,719	(26)
Leg	80,281	(24)	37,180	(28)	11,790	(9)
Environmental	26,796	(44)	21,365	(41)	983	(50)
Other injury from external causes	14,055	(61)	10,759	(55)	458	(68)
Other complications NOS	13,324	(63)	7,471	(61)	9,782	(10)
All other injury	10,390	(66)	7,279	(62)	555	(65)
Poisoning, nondrug	3,143	(87)	2,449	(77)	477	(67)
Poisoning, drugs	3,041	(88)	2,036	(79)	2,930	(30)
Mental disorders						
Substance abuse disorders	201,159	(10)	25,632	(37)	13,165	(7)
Mood	144,801	(14)	37,994	(26)	27,386	(2)
Adjustment	105,904	(19)	37,649	(27)	16,066	(5)
Anxiety	85,455	(21)	25,367	(38)	6,710	(15)
All other mental disorders	55,972	(32)	28,470	(32)	3,260	(28)
Tobacco dependence	17,911	(54)	9,836	(57)	128	(94)
Personality	13,910	(62)	5,388	(68)	1,860	(38)
Psychotic	8,729	(70)	1,145	(88)	7,967	(13)
Somatoform	4,242	(79)	1,610	(81)	372	(72)
Signs and symptoms						
All other signs and symptoms	362,351	(3)	208,185	(3)	5,963	(17)
Respiratory and chest	120,068	(17)	72,039	(15)	4,230	(23)
Abdomen and pelvis	76,674	(26)	48,834	(22)	2,306	(33)
Sense organ diseases						
Refraction/accommodation	327,099	(5)	237,990	(2)		
All other sense organ diseases	198,615	(11)	126,970	(9)	945	(51)
Glaucoma	12,899	(65)	8,034	(60)	5	(120)
Cataracts	1,426	(101)	846	(95)	4	(122)
Respiratory infections						
Upper respiratory infections	410,462	(1)	280,311	(1)	1,109	(47)
Lower respiratory infections	78,473	(25)	50,244	(20)	5,227	(20)
Otitis media	33,371	(42)	26,443	(35)	48	(104)
Musculoskeletal diseases						
All other musculoskeletal diseases	340,009	(4)	154,239	(5)	6,172	(16)
Other back problems	76,170	(27)	33,596	(30)	2,939	(29)
Other knee disorders	14,438	(59)	8,081	(59)	1,116	(46)
Osteoarthritis	10,390	(66)	6,932	(63)	577	(63)
Other shoulder disorders	9,676	(68)	5,874	(67)	229	(85)
Rheumatoid arthritis	2,237	(93)	911	(93)	54	(102)

¹Categories defined in the Global Burden of Disease Study.

²Medical encounters: total hospitalizations and ambulatory visits for the condition.

³Individuals affected: individuals with at least one hospitalizations or ambulatory visit for the condition.

Table 1. (Continued) Health care burdens attributable to various diseases and injuries, U.S. Armed Forces, 2005

Category ¹	Medical encounters ²		Individuals affected ³		Hospital bed-days	
	No.	Rank	No.	Rank	No.	Rank
Skin diseases						
All other skin diseases	237,089	(8)	132,906	(7)	8,998	(11)
Contact dermatitis	51,869	(33)	40,560	(24)	44	(106)
Sebaceous gland diseases	45,082	(36)	29,610	(31)	33	(107)
Infectious and parasitic diseases						
All other infectious and parasitic diseases	153,745	(13)	103,102	(11)	3,454	(27)
Unspecified viral infection	61,924	(31)	51,330	(18)	348	(73)
Diarrheal diseases	27,849	(43)	23,496	(39)	672	(59)
Sexually transmitted diseases (STDs)	25,489	(47)	19,352	(44)	765	(54)
Chlamydia	5,744	(76)	5,164	(70)	8	(116)
Tuberculosis	4,381	(78)	2,895	(75)	199	(86)
Hepatitis B and C	2,923	(89)	1,144	(89)	81	(97)
Bacterial meningitis	712	(109)	380	(104)	249	(81)
Tropical cluster	608	(111)	309	(107)	18	(109)
Malaria	346	(114)	154	(112)	169	(88)
Intestinal nematode infection	137	(119)	130	(114)	6	(119)
Respiratory diseases						
Allergic rhinitis	83,488	(22)	49,825	(21)	9	(114)
All other respiratory diseases	42,783	(37)	25,855	(36)	4,112	(24)
Asthma	35,138	(40)	17,758	(46)	567	(64)
Chronic sinusitis	26,359	(45)	20,940	(42)	172	(87)
Chronic obstructive pulmonary disease	23,100	(48)	20,018	(43)	245	(82)
Digestive diseases						
All other digestive diseases	82,406	(23)	46,997	(23)	12,127	(8)
Other gastroenteritis and colitis	67,139	(28)	55,858	(17)	860	(53)
Esophagus disease	33,831	(41)	22,757	(40)	1,257	(44)
Inguinal hernia	13,324	(63)	6,043	(65)	707	(57)
Appendicitis	6,268	(75)	2,473	(76)	5,795	(18)
Peptic ulcer disease	1,396	(102)	962	(91)	624	(60)
Cirrhosis of the liver	1,205	(103)	751	(98)	128	(94)
Genito-urinary diseases						
All other genito-urinary diseases	123,865	(16)	75,069	(13)	4,079	(25)
Menstrual disorders	16,353	(55)	11,685	(52)	432	(70)
Female genital pain	15,932	(56)	10,734	(56)	621	(61)
Other breast disorders	15,434	(57)	8,736	(58)	436	(69)
Kidney stones	15,173	(58)	6,228	(64)	1,409	(41)
Nephritis, nephrosis	4,007	(81)	1,306	(86)	745	(56)
Benign prostatic hypertrophy	2,005	(94)	1,436	(84)	2	(125)
Cardiovascular diseases						
Essential hypertension	64,376	(29)	35,233	(29)	387	(71)
All other cardiovascular diseases	62,343	(30)	38,292	(25)	4,906	(21)
Ischemic heart disease	7,553	(73)	3,169	(74)	2,399	(32)
Cerebrovascular disease	3,348	(84)	1,222	(87)	1,962	(36)
Inflammatory	1,607	(98)	818	(96)	552	(66)
Rheumatic heart disease	658	(110)	503	(101)	50	(103)

¹Categories defined in the Global Burden of Disease Study.

²Medical encounters: total hospitalizations and ambulatory visits for the condition.

³Individuals affected: individuals with at least one hospitalizations or ambulatory visit for the condition.

Table 1. (Continued) Health care burdens attributable to various diseases and injuries, U.S. Armed Forces, 2005

Category ¹	Medical encounters ²		Individuals affected ³		Hospital bed-days	
	No.	Rank	No.	Rank	No.	Rank
Endocrine disorders						
All other endocrine disorders	45,772	(35)	26,957	(34)	2,251	(34)
Lipoid metabolism disorders	37,336	(39)	27,436	(33)	239	(83)
Obesity	21,255	(50)	13,914	(51)	154	(93)
Maternal conditions						
Pregnancy complications	49,463	(34)	16,729	(48)	18,156	(3)
Delivery	38,224	(38)	13,968	(50)	36,756	(1)
Ectopic/miscarriage/abortion	6,852	(74)	3,423	(73)	621	(61)
Puerperium complications	2,507	(90)	1,541	(82)	761	(55)
All other maternal disorders	23	(128)	12	(128)		
Headache						
Headache	91,277	(20)	50,921	(19)	1,254	(45)
Other neoplasms						
All other neoplasms	25,974	(46)	18,228	(45)	2,035	(35)
Benign skin neoplasm	14,301	(60)	11,662	(53)	8	(116)
Lipoma	9,393	(69)	5,955	(66)	55	(101)
Uterine leiomyoma	4,095	(80)	1,857	(80)	1,785	(39)
Neurologic conditions						
All other neurologic conditions	20,783	(51)	11,159	(54)	2,702	(31)
Other mononeuritis - upper and lower limbs	7,760	(71)	4,452	(72)	155	(92)
Epilepsy	3,338	(86)	1,465	(83)	301	(79)
Multiple sclerosis	1,907	(95)	513	(100)	237	(84)
Parkinson disease	117	(120)	38	(121)	4	(122)
Alzheimer, other dementias	14	(129)	5	(129)		
Malignant neoplasms						
Lymphomas, multiple myeloma	5,415	(77)	743	(99)	1,311	(43)
Melanoma and other skin cancers	3,720	(82)	2,044	(78)	168	(89)
All other malignant neoplasms	3,614	(83)	933	(92)	1,733	(40)
Breast cancer	3,340	(85)	353	(105)	168	(89)
Colon, rectum cancer	2,273	(92)	258	(109)	1,398	(42)
Testicular cancer	1,901	(96)	468	(102)	269	(80)
Leukemia	1,840	(97)	161	(111)	998	(49)
Prostate cancer	1,432	(100)	300	(108)	319	(78)
Thyroid	1,096	(105)	319	(106)	338	(75)
Brain	1,068	(106)	149	(113)	689	(58)
Mouth, oropharynx cancer	804	(108)	217	(110)	115	(96)
Trachea, bronchus and lung cancer	523	(113)	85	(116)	329	(76)
Bladder cancer	270	(115)	72	(117)	15	(111)
Ovary cancer	175	(117)	55	(118)	62	(99)
Liver cancer	146	(118)	21	(124)	75	(98)
Cervix uteri cancer	101	(121)	32	(122)	14	(112)
Pancreas cancer	94	(122)	18	(125)	61	(100)
Esophagus cancer	65	(125)	13	(126)	31	(108)
Stomach cancer	45	(126)	25	(123)	7	(118)
Corpus uteri cancer	36	(127)	13	(126)	8	(116)

¹Categories defined in the Global Burden of Disease Study.

²Medical encounters: total hospitalizations and ambulatory visits for the condition.

³Individuals affected: individuals with at least one hospitalizations or ambulatory visit for the condition.

Table 1. (Continued) Health care burdens attributable to various diseases and injuries, U.S. Armed Forces, 2005

Category ¹	Medical encounters ²		Individuals affected ³		Hospital bed-days	
	No.	Rank	No.	Rank	No.	Rank
Oral conditions						
All other oral conditions	21,950	(49)	16,851	(47)	1,885	(37)
Periodontal disease	1,193	(104)	1,014	(90)	12	(113)
Dental caries	978	(107)	812	(97)	16	(110)
Congenital anomalies						
All other congenital anomalies	20,515	(52)	14,441	(49)	1,092	(48)
Congenital heart disease	1,595	(99)	908	(94)	328	(77)
Diabetes mellitus						
Diabetes mellitus	18,393	(53)	5,076	(71)	916	(52)
Nutritional deficiencies						
All other nutritional deficiencies	7,728	(72)	5,172	(69)	346	(74)
Iron-deficiency anemia	2,287	(91)	1,388	(85)	156	(91)
Protein-energy malnutrition	77	(123)	54	(119)	46	(105)

¹Categories defined in the Global Burden of Disease Study.

²Medical encounters: total hospitalizations and ambulatory visits for the condition.

³Individuals affected: individuals with at least one hospitalizations or ambulatory visit for the condition.

Reportable Medical Events, Active Components, U.S. Armed Forces, 2005

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 permanent installations worldwide collect and electronically transmit data regarding notifiable events to their respective Service surveillance centers. From these centers, reports 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).¹

Since 1998, 70 medical conditions^{2,3} 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 2005) of reportable medical events among active duty military personnel.

General: During 2005, there were 12,413 reports of notifiable medical events among active component members of the U.S. Armed Forces. During the year, there were an average of 24.3, 6.6, and 3.1 case reports per day from Army, Air Force, and Navy medical treatment facilities, respectively. In 2005 compared to 2004, the number of reports increased by 2.5% among Army and decreased by 47.7% and 31.2% among Air Force and Navy servicemembers, respectively (Tables 1-3).

Sexually-transmitted infections: In 2005, as in prior years, sexually-transmitted infections (due to chlamydia, gonorrhea, syphilis, and nongonococcal urethritis) accounted for nearly 90% (n=10,898) of all notifiable event reports among active servicemembers. As in the past, *Chlamydia trachomatis* was the most frequently reported notifiable condition among servicemembers (n=8,510; 68.6% of all reports)(Tables 1-3).

Environmental: During 2005, military medical facilities reported 516 heat- and 51 cold-related injuries of active servicemembers (Tables 1-3). More than 90% of all heat injury reports were from the Army; and in the Army, there were more heat injuries reported in 2005 than in any of the prior 4 years (Table 1). During the year, more than 80% of all cold injury reports were from the Army; however, in the Army, there were fewer cold injury reports in 2005 than in any of the prior 4 years (Table 1). Finally, in 2005, there were no reported cases of carbon monoxide or lead poisoning among active servicemembers.

Vaccine preventable illnesses: In 2005, there were no reports of diphtheria, measles, poliomyelitis, rubella, tetanus, typhoid, or yellow fever among active servicemembers. There was one report of mumps, nine of meningococcal disease, nine of hepatitis A, 13 of pertussis, 30 of varicella, 52 of hepatitis B, and 431 of influenza among active servicemembers (Tables 1-3). There were significantly more reports of influenza and significantly fewer of pertussis in 2005 compared to 2004 (Tables 1-3).

Arthropod-transmitted diseases: In 2005, there was a sharp decline from the previous two years in the number of reports of cutaneous leishmaniasis (2003, n=516; 2004, n=212; 2005, n=31) (Tables 1-3). During 2005, there were 49 reports of malaria: of the 33 cases with known causes, 28 (85%) were reported as *P. vivax* and 5 (15%) as *P. falciparum* (Tables 1-3). During the year, there were 33 reports of Lyme disease

(slightly more than in 2004) (Tables 1-3). Finally, in 2005, there were six reports of dengue, three of Rocky Mountain spotted fever, and one or none of other reportable arthropod-transmitted diseases (Tables 1-3).

Food/water-transmitted infections: In 2005, the most frequently reported food/water-transmitted infections among active servicemembers were campylobacter (n=59), salmonella (n=59), giardia (n=24), shigella (n=19), and amebiasis (n=5) (Tables 1-3). In each case, there was no significant difference in the number of reports in 2005 compared to 2004 (Tables 1-3). As in prior years, in 2005, there were three or fewer reported cases of cholera, *E. coli* O157:H7, and typhoid fever (Tables 1-3).

Editorial comment: In the military, surveillance of reportable conditions provides military public health officials with timely information regarding current and emerging, potentially significant, public health and/or medical force protection problems. Of course, 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, medical facilities, and conditions.³⁻⁵ 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 permanent military medical facilities (e.g., leishmaniasis). Thus, complete assessments of frequencies, rates, and trends of notifiable conditions require reviews of more than reported cases alone (e.g., hospitalizations).

Data analysis by Vivian Kong, Analysis Group, Army Medical Surveillance Activity

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Table 1. Reportable events¹ at U.S. Army medical treatment facilities² among active component personnel, 2001-2005

Diagnosis ²	2001	2002	2003	2004	2005	Diagnosis ²	2001	2002	2003	2004	2005
All reportable events	9,915	10,837	8,534	8,649	8,866	Listeriosis	.	.	1	.	.
Amebiasis	4	1	.	1	2	Lyme disease	14	19	11	20	22
Anthrax	.	.	.	.	.	Malaria, falciparum	13	10	4	8	2
Biological warfare agent exp.	.	.	.	1	.	Malaria, malariae	1	.	.	.	.
Botulism	.	.	.	.	.	Malaria, ovale	1	1	.	1	.
Brucellosis	.	.	1	1	2	Malaria, unspecified	8	2	21	16	14
Campylobacter	54	56	36	33	48	Malaria, vivax	25	47	49	25	26
Carbon monoxide poisoning	5	.	.	.	.	Measles	.	.	.	.	.
Chemical agent exposure	.	.	.	.	.	Meningococcal meningitis	1	4	2	1	5
Chlamydia	6,271	7,245	5,440	5,680	5,911	Meningococcal septicemia	.	.	.	.	.
Cholera	.	.	.	.	.	Mumps	1	.	1	.	1
Coccidioidomycosis	2	5	1	2	4	Pertussis	.	1	.	19	7
Cold weather, frostbite	60	49	39	63	26	Plague	.	.	.	.	.
Cold weather, hypothermia	.	.	3	.	1	Poliomyelitis	.	.	.	.	.
Cold weather, immersion type	13	19	12	6	2	Q fever	.	1	3	1	2
Cold weather, unspecified	19	13	9	5	13	Rabies, human	.	.	.	.	.
Cryptosporidiosis	.	.	.	.	.	Relapsing fever	.	.	.	.	1
Cyclospora	.	.	.	.	.	Rheumatic fever, acute	.	.	.	.	.
Dengue fever	1	5	.	1	2	Rift Valley fever	.	.	.	.	.
Diphtheria	.	.	.	.	.	Rocky Mountain spotted fever	2	.	.	6	2
<i>Escherichia coli</i> O157:H7	3	1	.	.	2	Rubella	.	.	.	.	.
Ehrlichiosis	.	.	.	.	.	Salmonellosis	60	46	31	29	27
Encephalitis	2	.	.	.	.	Schistosomiasis	.	.	.	.	.
Filariasis	.	.	.	1	.	Shigellosis	8	15	35	15	12
Giardiasis	20	11	18	19	13	Smallpox	.	.	.	.	.
Gonorrhea	1,807	2,053	1,287	1,292	1,430	<i>Streptococcus</i> , group A, inv.	5	3	4	2	2
<i>H. influenzae</i> , invasive	2	.	2	.	.	Syphilis, congenital	1	.	1	.	.
Hantavirus infection	.	.	2	.	4	Syphilis, latent	8	14	7	10	20
Heat exhaustion	262	267	126	285	349	Syphilis, primary/secondary	20	19	18	36	32
Heat stroke	116	91	88	168	132	Syphilis, tertiary	7	.	4	.	1
Hemorrhagic fever	2	.	1	.	.	Tetanus	.	.	.	.	.
Hepatitis A	8	4	6	7	7	Toxic shock syndrome	.	.	.	.	.
Hepatitis B	31	21	13	23	28	Trichinosis	.	1	.	1	.
Hepatitis C	21	3	6	23	31	Trypanosomiasis	.	.	.	.	.
Influenza	24	13	185	86	233	Tuberculosis, pulmonary	4	5	3	5	3
Lead poisoning	.	.	.	.	.	Tularemia	.	.	1	.	.
Legionellosis	1	1	.	.	.	Typhoid fever	1	.	.	.	.
Leishmaniasis, cutaneous	.	2	513	208	29	Typhus fever	.	.	.	.	.
Leishmaniasis, mucocutaneous	.	.	.	.	1	Urethritis, non-gonococcal	969	757	442	504	380
Leishmaniasis, unspecified	.	.	.	.	.	Vaccine, adverse event	4	6	75	20	21
Leishmaniasis, visceral	1	.	2	2	.	Varicella, active duty only	31	18	23	20	14
Leprosy	.	4	.	1	.	West Nile virus	.	.	3	1	.
Leptospirosis	2	4	5	1	2	Yellow fever	.	.	.	.	.

¹ Events reported by April 7, 2006.

² As specified in Tri-Service Reportable Events list, May 2005.

Table 2. Reportable events¹ at U.S. Navy medical treatment facilities among active component personnel, 2001-2005

Diagnosis ²	2001	2002	2003	2004	2005	Diagnosis ²	2001	2002	2003	2004	2005
All reportable events	1,406	3,123	1,754	1,643	1,130	Listeriosis	.	.	.	.	.
Amebiasis	1	.	.	.	2	Lyme disease	9	14	2	3	4
Anthrax	.	.	.	.	.	Malaria, falciparum	.	.	4	33	3
Biological warfare agent exposure	.	.	.	.	.	Malaria, malariae	.	.	.	.	.
Botulism	.	.	.	.	.	Malaria, ovale	.	.	.	.	.
Brucellosis	.	.	.	.	.	Malaria, unspecified	.	2	3	4	2
Campylobacter	2	8	2	3	3	Malaria, vivax	.	.	3	.	1
Carbon monoxide poisoning	.	.	.	.	.	Measles	.	.	.	.	.
Chemical agent exposure	.	1	.	.	.	Meningococcal meningitis	2	2	2	.	2
Chlamydia	1,060	1,958	1,279	1,104	847	Meningococcal septicemia	.	1	1	.	.
Cholera	.	1	.	.	.	Mumps	.	.	.	.	.
Coccidioidomycosis	7	7	5	1	6	Pertussis	.	.	.	.	2
Cold weather, frostbite	.	.	.	.	.	Plague	.	.	.	.	.
Cold weather, hypothermia	.	.	.	1	1	Poliomyelitis	.	.	.	.	.
Cold weather, immersion type	.	.	.	.	.	Q fever	.	.	.	.	1
Cold weather, unspecified	.	1	.	.	.	Rabies, human	.	.	.	.	1
Cryptosporidiosis	.	.	.	.	.	Relapsing fever	.	.	.	.	.
Cyclospora	.	.	.	.	.	Rheumatic fever, acute	.	1	.	.	.
Dengue fever	.	.	.	3	2	Rift Valley fever	.	.	.	.	.
Diphtheria	.	.	.	.	.	Rocky Mountain spotted fever	.	.	.	2	.
<i>Escherichia coli</i> O157:H7	.	.	.	.	.	Rubella	.	.	.	.	.
Ehrlichiosis	.	.	.	.	.	Salmonellosis	7	9	17	5	12
Encephalitis	1	.	.	1	1	Schistosomiasis	.	1	.	.	.
Filariasis	.	.	.	.	.	Shigellosis	2	3	5	1	.
Giardiasis	2	6	4	8	2	Smallpox	.	.	.	.	.
Gonorrhea	234	460	240	217	137	<i>Streptococcus</i> , group A, inv.	2	15	2	2	.
<i>H. influenzae</i> , invasive	.	.	.	.	.	Syphilis, congenital	.	1	1	7	.
Hantavirus infection	.	.	.	.	1	Syphilis, latent	7	2	2	3	2
Heat exhaustion	7	164	104	72	32	Syphilis, primary/secondary	3	7	11	14	9
Heat stroke	2	26	8	7	2	Syphilis, tertiary	.	.	.	1	.
Hemorrhagic fever	.	.	.	.	.	Tetanus	.	.	.	.	.
Hepatitis A	.	.	.	2	1	Toxic shock syndrome	.	.	.	.	.
Hepatitis B	8	8	4	7	11	Trichinosis	.	2	.	.	.
Hepatitis C	4	3	3	4	5	Trypanosomiasis	.	.	.	.	.
Influenza	1	2	2	1	16	Tuberculosis, pulmonary	5	4	4	4	2
Lead poisoning	.	.	.	.	.	Tularemia	.	.	.	.	.
Legionellosis	.	.	.	.	.	Typhoid fever	.	.	.	.	.
Leishmaniasis, cutaneous	.	1	.	2	.	Typhus fever	3	.	1	.	.
Leishmaniasis, mucocutaneous	.	.	.	.	.	Urethritis, non-gonococcal	27	402	36	123	18
Leishmaniasis, unspecified	.	.	.	1	.	Vaccine, adverse event	2	3	5	2	.
Leishmaniasis, visceral	.	.	.	.	1	Varicella, active duty only	7	8	4	4	1
Leprosy	.	.	.	.	.	West Nile virus	.	.	.	.	.
Leptospirosis	1	.	.	1	.	Yellow fever	.	.	.	.	.

¹ Events reported by April 7, 2006.

² As specified in Tri-Service Reportable Events list, May 2005.

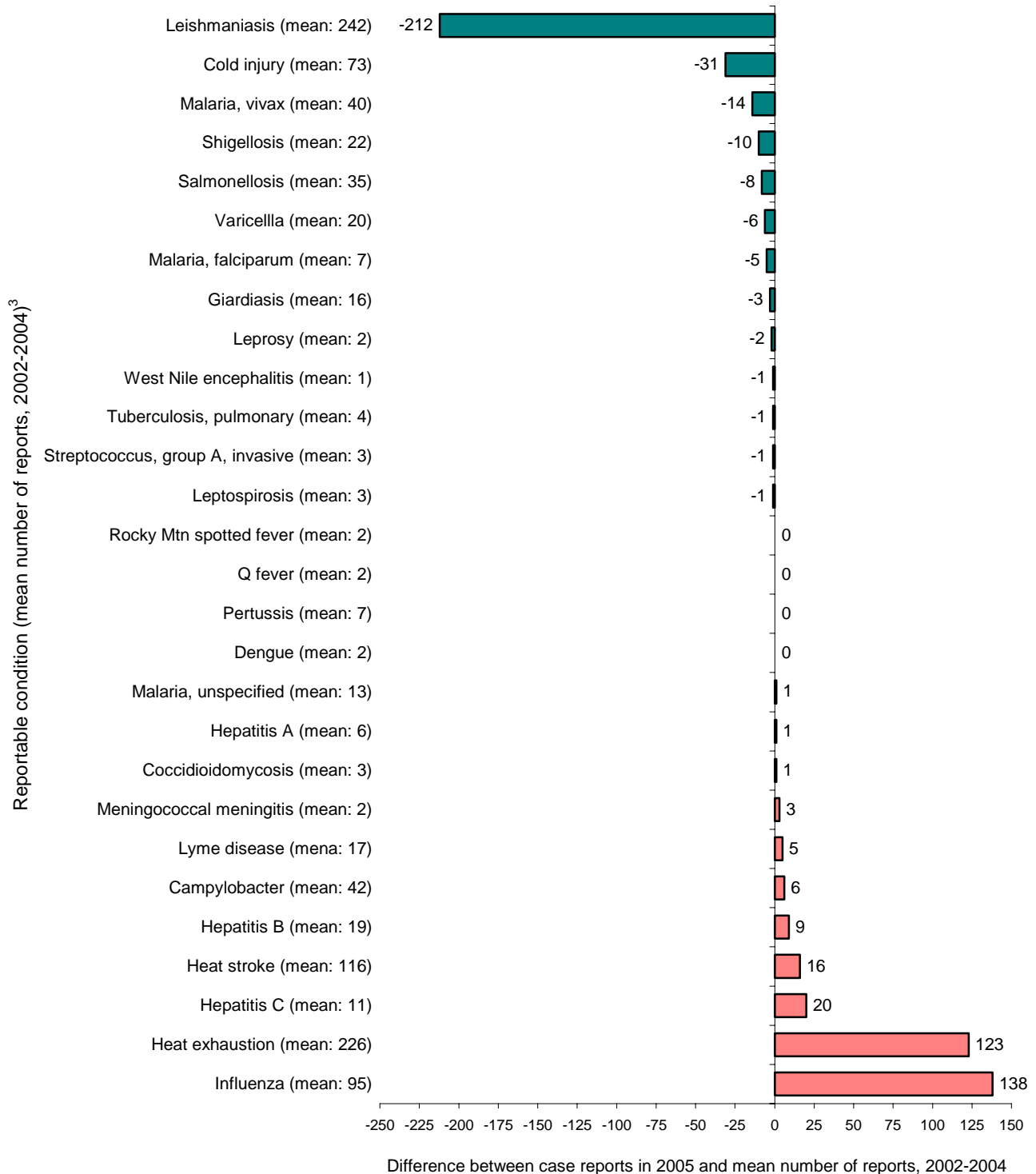
Table 3. Reportable events¹ at U.S. Air Force medical treatment facilities among active component personnel, 2001-2005

Diagnosis ²	2001	2002	2003	2004	2005	Diagnosis ²	2001	2002	2003	2004	2005
All reportable events	4,385	5,534	5,399	4,619	2,417	Listeriosis	.	.	.	.	.
Amebiasis	.	1	1	.	1	Lyme disease	11	5	1	4	7
Anthrax	.	.	.	.	.	Malaria, falciparum	.	5	3	1	.
Biological warfare agent exposure	.	.	.	.	.	Malaria, malariae	.	.	.	.	.
Botulism	.	.	.	.	.	Malaria, ovale	1	.	.	.	.
Brucellosis	.	.	.	.	.	Malaria, unspecified	.	.	4	1	.
Campylobacter	24	30	22	26	8	Malaria, vivax	3	2	3	3	1
Carbon monoxide poisoning	.	.	.	.	.	Measles	.	.	.	.	.
Chemical agent exposure	.	.	.	.	.	Meningococcal meningitis	.	.	.	2	2
Chlamydia	3,643	4,694	4,546	4,011	1,752	Meningococcal septicemia	.	.	.	.	.
Cholera	.	.	.	.	.	Mumps	2	1	.	.	.
Coccidioidomycosis	6	2	.	.	2	Pertussis	2	.	2	17	4
Cold weather, frostbite	1	.	.	1	7	Plague	.	.	.	.	.
Cold weather, hypothermia	.	.	.	.	.	Poliomyelitis	.	.	.	.	.
Cold weather, immersion type	.	.	.	.	.	Q fever	.	.	2	.	.
Cold weather, unspecified	1	.	.	1	1	Rabies, human	.	.	.	1	2
Cryptosporidiosis	.	.	.	.	.	Relapsing fever	.	.	.	.	.
Cyclospora	.	.	.	.	.	Rheumatic fever, acute	.	.	.	1	.
Dengue fever	1	.	.	1	2	Rift Valley fever	.	.	.	.	.
Diphtheria	.	.	.	.	.	Rocky Mountain spotted fever	.	1	.	.	1
<i>Escherichia coli</i> O157:H7	1	.	.	2	1	Rubella	.	.	.	.	.
Ehrlichiosis	.	.	.	.	.	Salmonellosis	18	14	17	16	20
Encephalitis	.	.	2	2	.	Schistosomiasis	.	.	.	.	.
Filariasis	.	.	.	.	.	Shigellosis	11	23	13	1	7
Giardiasis	16	13	9	5	9	Smallpox	.	.	.	.	1
Gonorrhea	406	412	449	364	341	<i>Streptococcus</i> , group A, inv.	2	1	3	1	2
<i>H. influenzae</i> , invasive	.	.	.	.	.	Syphilis, congenital	1	.	3	2	.
Hantavirus infection	1	.	.	.	.	Syphilis, latent	5	4	7	6	7
Heat exhaustion	25	18	11	5	1	Syphilis, primary/secondary	8	11	12	18	11
Heat stroke	1	.	.	1	.	Syphilis, tertiary	.	.	.	.	.
Hemorrhagic fever	.	.	.	.	.	Tetanus	.	.	.	.	.
Hepatitis A	7	7	3	2	1	Toxic shock syndrome	.	.	.	.	.
Hepatitis B	29	58	39	27	13	Trichinosis	1	1	2	2	1
Hepatitis C	21	33	12	16	6	Trypanosomiasis	.	.	.	.	.
Influenza	106	169	207	72	182	Tuberculosis, pulmonary	.	2	1	.	1
Lead poisoning	.	.	.	.	.	Tularemia	.	.	.	.	.
Legionellosis	.	2	2	.	.	Typhoid fever	1	.	1	.	.
Leishmaniasis, cutaneous	.	.	3	2	2	Typhus fever	.	.	.	.	.
Leishmaniasis, mucocutaneous	.	.	.	.	.	Urethritis, non-gonococcal	20	16	7	2	.
Leishmaniasis, unspecified	.	.	.	.	1	Vaccine, adverse event	.	.	.	.	4
Leishmaniasis, visceral	.	.	.	.	.	Varicella, active duty only	10	8	11	3	15
Leprosy	.	1	1	.	.	West Nile virus	.	.	.	.	1
Leptospirosis	.	.	.	.	.	Yellow fever	.	.	.	.	.

¹ Events reported by April 7, 2006.

² As specified in Tri-Service Reportable Events list, May 2005.

Figure 1. Number of reportable events¹ among active component servicemembers during 2005² compared to the average³ during the period 2002-2004, U.S. Army medical treatment facilities.



¹ Sexually transmitted diseases are excluded.

² Events reported by April 7, 2006.

³ For diseases with three year totals of at least 3 cases. All averages are rounded to the nearest integer.

Source: Army Reportable Medical Events System

Pre- and Post-deployment Health Assessments, U.S. Armed Forces, January 2003-April 2006

The June 2003 issue of the *MSMR* summarized the background, rationale, policies, and guidelines related to pre-deployment and post-deployment health assessments of servicemembers.¹⁻¹⁰ Briefly, prior to deploying, the health of each servicemember is assessed to ensure his/her medical fitness and readiness for deployment. 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 (in hard copy or electronic form) 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 health assessments are integrated with data that document demographic characteristics, military experiences, and medical encounters of all servicemembers (e.g., hospitalizations, ambulatory visits, immunizations).¹¹ The continuously expanding DMSS database can be used to monitor the health of servicemembers who participated in major overseas deployments.¹¹⁻¹³

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

Methods: For this update, the DMSS was searched to identify all pre- and post-deployment health assessments (DD Form 2795 and DD Form 2796, respectively) that were completed after 1 January 2003.

Results: From 1 January 2003 to 30 April 2006, 1,276,952 pre-deployment health assessments and 1,285,139 post-deployment health assessments were

completed at field sites, shipped to AMSA, and integrated in the DMSS database (Table 1).

In general, the distributions of self-assessments of "overall health" were similar among pre- and post-deployment form respondents (Figure 1). For example, both prior to and after deployment, the most frequent descriptor of "overall health" was "very good." Of note, however, relatively more pre- (33%) than post- (23%) deployment respondents assessed their overall health as "excellent"; while more post- (41%) than pre- (25%) deployment respondents assessed their overall health as "good," "fair," or "poor" (Figure 1).

Among servicemembers (n= 650,214) who completed both a pre- and a post-deployment health assessment, fewer than half (45%) chose the same descriptor of their overall health before and after deploying (Figures 2, 3). Of those (n=358,965) who changed their assessments from pre- to post-deployment, three-fourths (75%) changed by a single category (on a five category scale) (Figure 3); and of those who changed by more than one category, nearly 5-times as many indicated a decrement in overall health (n=73,290; 11% of all respondents) as an improvement (n= 15,496; 2% of all respondents) (Figure 3).

On post-deployment forms 22% of active and 40% of Reserve component respondents reported "medical/dental problems" during deployment (Table 2). Among active component respondents, "medical/dental problems" were more frequently reported by soldiers and Marines than by members of the other Services. Among Reservists, members of the Air Force reported "medical/dental problems" much less often than members of the other Services (Table 2).

Approximately 4% and 6% of active and Reserve component respondents, respectively, reported "mental health concerns." "Mental health concerns" were reported relatively more frequently among soldiers (active: 6%; Reserve: 7%) than members of the other Services (Table 2). Post-deployment forms from approximately one-fifth (18%) of active component and one-fourth (24%) of Reserve component members documented that "referrals" were indicated (Table 2); and 91% and

Table 1. Total pre-deployment and post-deployment health assessments, by month and year, U.S. Armed Forces, January 2003-April 2006

	Pre-deployment		Post-deployment	
	No.	%	No.	%
Total	1,276,952	100.0	1,285,139	100.0
2003				
January	69,390	5.4	6,221	0.5
February	110,571	8.7	5,077	0.4
March	69,853	5.5	6,755	0.5
April	37,598	2.9	19,349	1.5
May	12,881	1.0	92,877	7.2
June	14,416	1.1	65,381	5.1
July	18,060	1.4	52,902	4.1
August	16,513	1.3	35,153	2.7
September	12,793	1.0	32,446	2.5
October	24,168	1.9	27,044	2.1
November	19,700	1.5	21,542	1.7
December	36,153	2.8	22,241	1.7
2004				
January	70,204	5.5	39,996	3.1
February	39,200	3.1	32,281	2.5
March	22,842	1.8	66,654	5.2
April	19,934	1.6	44,503	3.5
May	27,796	2.2	17,910	1.4
June	24,662	1.9	28,384	2.2
July	22,804	1.8	24,341	1.9
August	34,298	2.7	23,010	1.8
September	32,193	2.5	24,301	1.9
October	35,650	2.8	15,861	1.2
November	36,234	2.8	22,080	1.7
December	38,605	3.0	27,068	2.1
2005				
January	34,677	2.7	56,250	4.4
February	24,756	1.9	70,086	5.5
March	20,849	1.6	53,502	4.2
April	26,960	2.1	19,105	1.5
May	18,749	1.5	21,094	1.6
June	25,571	2.0	19,243	1.5
July	21,597	1.7	16,872	1.3
August	47,229	3.7	29,412	2.3
September	34,473	2.7	38,924	3.0
October	37,145	2.9	37,375	2.9
November	34,902	2.7	38,684	3.0
December	20,870	1.6	56,346	4.4
2006				
January	28,728	2.2	35,354	2.8
February	20,182	1.6	15,457	1.2
March	18,804	1.5	13,577	1.1
April	14,942	1.2	10,481	0.8

85% of all active and Reserve component respondents, respectively, had hospitalizations and/or medical encounters within 6 months after documented post-deployment referrals (Table 2).

Overall, approximately 16% of all post-deployment forms indicated deployment-related "exposure concerns" (Table 3). The proportion of respondents who reported exposure concerns significantly varied from month to month. In general, in the active components, rates of exposure concerns increased through calendar year 2003 and have been relatively stable since then (Figure 4). In the Reserve components, rates of exposure concerns increased through the spring of 2004 and have been relatively high (20% to 35%) since then (Figure 4). Reports of exposure concerns have been generally higher in the Army than the other services and in the Reserve compared to the active component. Finally, prevalences of exposure concerns increase with age (Tables 3, 4).

Figure 1. Percent distributions of self-assessed health status, pre- and post-deployment, U.S. Armed Forces, January 2003- April 2006.

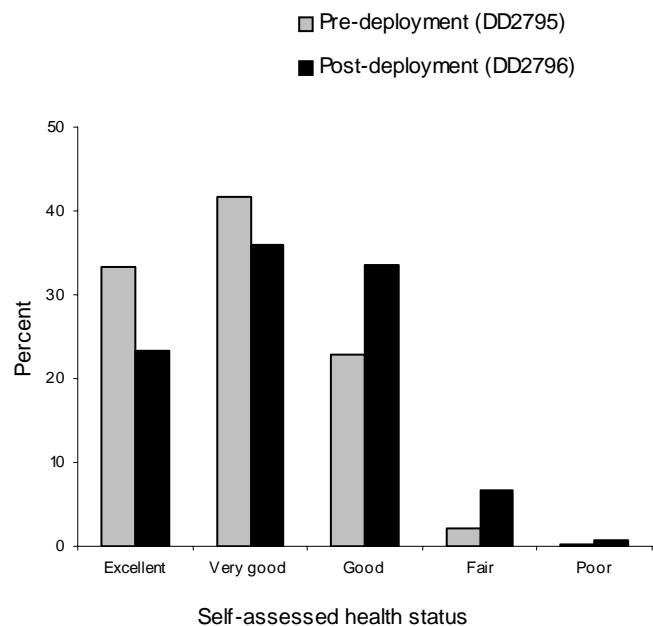


Figure 2. Self-assessed health status on post-deployment form, in relation to self-assessed health status on pre-deployment in the same individual, U.S. Armed Forces, January 2003- April 2006.

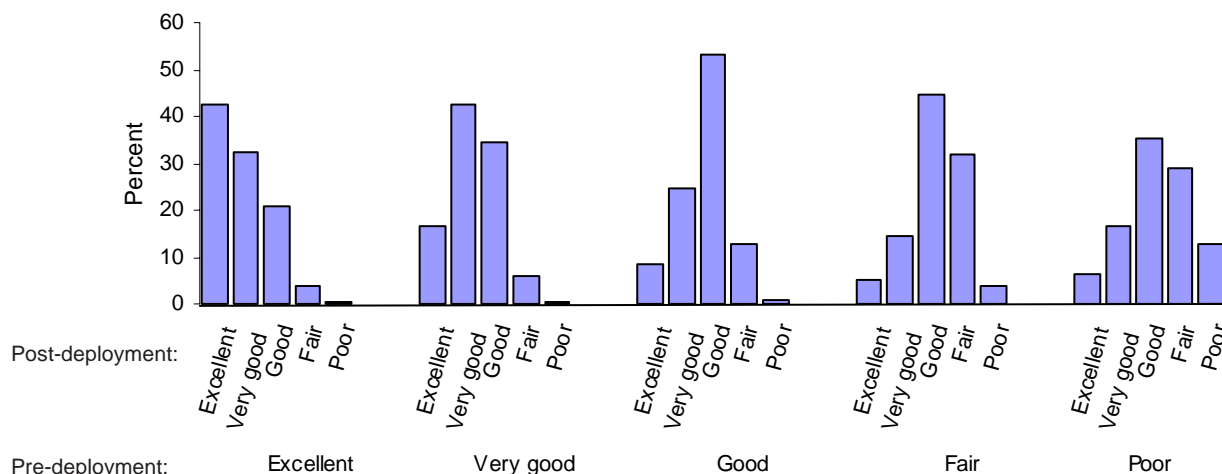


Table 2. Responses to selected questions from post-deployment forms (DD2796) by service and component, U.S. Armed Forces, January 2003-April 2006

	Army	Navy	Air Force	Marine Corps	Total
Active component					
SMs with DD 2796 in DMSS	276,697	97,779	112,662	86,876	574,014
Electronic version	77%	3%	68%	11%	53%
General health ("fair" or "poor")	9%	5%	2%	6%	6%
Medical/dental problems during deploy	30%	12%	12%	20%	22%
Currently on profile	11%	2%	2%	3%	6%
Mental health concerns	6%	2%	1%	2%	4%
Exposure concerns	17%	5%	4%	11%	12%
Health concerns	13%	6%	5%	9%	10%
Referral indicated	26%	7%	10%	13%	18%
Medical visit following referral ¹	97%	72%	90%	65%	91%
Post deployment serum ²	94%	81%	89%	88%	90%
Reserve component					
SMs with DD 2796 in DMSS	262,559	15,730	42,251	19,799	340,339
Electronic version	70%	15%	58%	17%	63%
General health ("fair" or "poor")	11%	6%	2%	8%	10%
Medical/dental problems during deploy	44%	36%	15%	35%	40%
Currently on profile	14%	4%	2%	3%	12%
Mental health concerns	7%	3%	1%	3%	6%
Exposure concerns	26%	20%	8%	25%	23%
Health concerns	22%	21%	10%	21%	20%
Referral indicated	26%	19%	11%	23%	24%
Medical visit following referral ¹	89%	79%	58%	55%	85%
Post deployment serum ²	94%	87%	70%	87%	90%

¹ Inpatient or outpatient visit within 6 months after referral.

² Only calculated for DD2796 forms completed since 1 June 2003.

Editorial comment: Since January 2003, approximately 75% of U.S. servicemembers have assessed their overall health as “very good” or “excellent” when they are mobilized and/or prior to deploying overseas; and approximately 59% have assessed their overall health as “very good” or “excellent” at the end of their deployments. Most of the changes in assessments of overall health from pre- to post-deployment have been relatively minor (i.e., one category on a 5-category scale). Still, however, approximately one of nine post-deployers have indicated relatively significant declines (i.e., two or more categories) in their overall health from pre- to post-deployment. The findings are attributable at least in part to the extreme physical and psychological stresses associated with mobilization, overseas deployment, and harsh and dangerous living and working conditions.^{14,15}

The deployment health assessment process is specifically designed to identify, assess, and follow-up as necessary all servicemembers with concerns regarding their health and/or deployment-related exposures. Overall, for example, approximately one-fourth of all returning soldiers had “referral indications” documented on post-deployment health assessments; and of those, most had documented

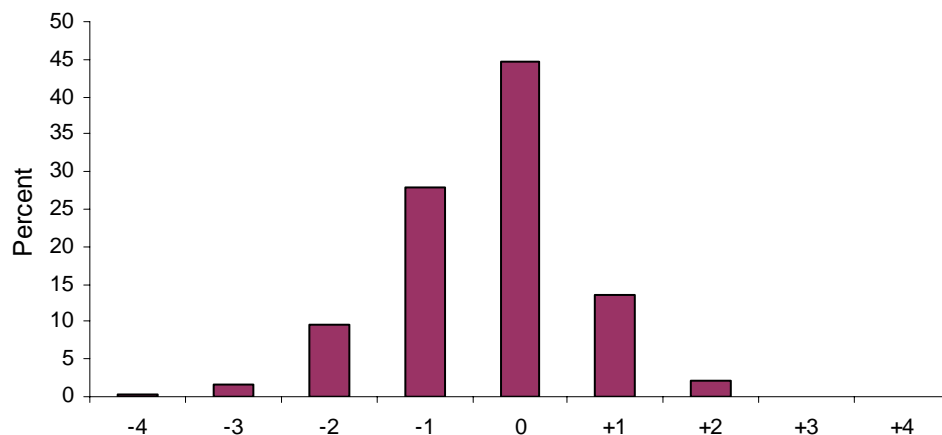
outpatient visits and/or hospitalizations within 6 months after they returned.

Of interest, “exposure concerns” among post-deploying respondents significantly vary from month to month. However, since the beginning of 2004, exposure concerns have been much more common among Reserve compared to active component members. Among both active and Reserve component members, exposure concerns significantly increase with age, and in both components, servicemembers older than 40 are approximately twice as likely as those younger than 20 to report exposure concerns.

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Figure 3. Distribution of changes in self assessed health statuses as reported on pre- and post-deployment forms, U.S. Armed Forces, January 2006-April 2006.



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".

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Table 3. Reports of exposure concerns on post-deployment health assessments, U.S. Armed Forces, January 2003-April 2006

	Total ¹	Exposure concerns	% with exposure concerns
Total	914,242	145,714	15.9
Component			
Active	572,708	66,708	11.6
Reserve	341,534	79,006	23.1
Service			
Army	540,702	115,643	21.4
Navy	112,122	7,628	6.8
Air Force	155,700	8,291	5.3
Marine Corps	105,718	14,152	13.4
Age (years)			
<20	24,031	1,933	8.0
20-29	485,330	64,215	13.2
30-39	252,884	44,875	17.7
>39	151,977	34,691	22.8
Gender			
Men	812,114	127,747	15.7
Women	102,125	17,967	17.6
Race/ethnicity			
Black	158,194	27,353	17.3
Hispanic	89,685	15,576	17.4
Other	2,190	233	10.6
White	599,525	92,313	15.4
Grade			
Enlisted	797,022	125,658	15.8
Officer	117,212	20,055	17.1

¹Totals do not include non-responses/missing data.

Figure 4. Proportion of post-deployment forms that include reports of exposure concerns, U. S. Armed Forces, January 2003-April 2006.

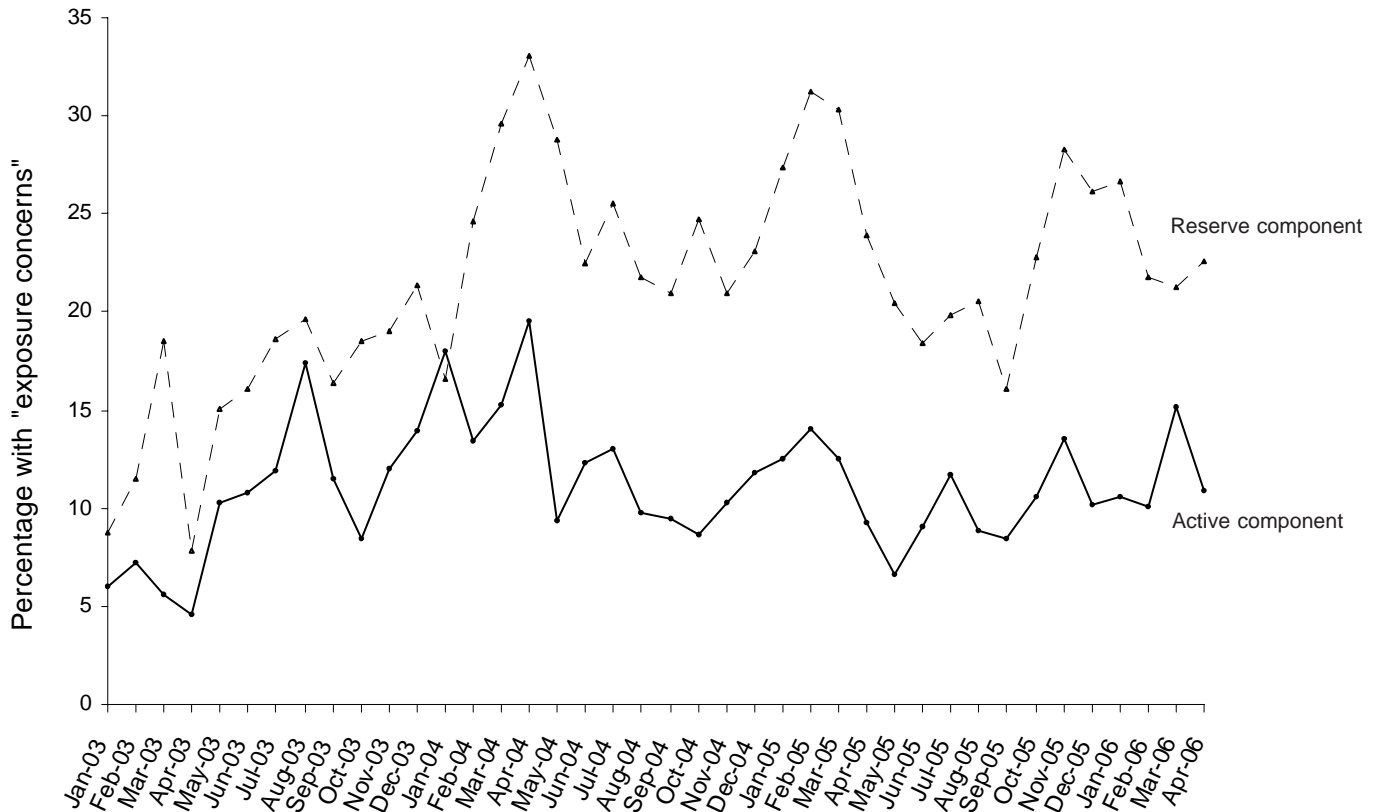


Table 4. Proportion of post-deployment forms that include reports of exposure concerns, by age group and component, U.S. Armed Forces, January 2003-April 2006

Age group	Active	Reserve
<20	6.5	13.9
20-29	10.6	20.5
30-39	13.4	23.9
>39	16.1	26.1

**Table 1. Demographic characteristics of active component members,
by Service, U.S. Armed Forces, 2005**

Characteristic	Army		Navy		Air Force		Marine Corps	
	No.	%	No.	%	No.	%	No.	%
Total¹	485,793	100.0	355,906	100.0	348,125	100.0	179,757	100.0
Gender								
Men	416,569	85.8	304,723	85.6	279,926	80.4	168,912	94.0
Women	69,224	14.2	51,183	14.4	68,199	19.6	10,845	6.0
Age (years)								
< 20	34,974	7.2	25,840	7.3	15,276	4.4	28,233	15.7
20-24	162,021	33.4	115,651	32.5	102,970	29.6	83,421	46.4
25-29	106,765	22.0	77,550	21.8	79,126	22.7	31,043	17.3
30-34	73,868	15.2	52,566	14.8	52,995	15.2	17,194	9.6
35-39	59,290	12.2	45,525	12.8	49,556	14.2	11,655	6.5
40-44	32,907	6.8	25,690	7.2	34,602	9.9	5,740	3.2
45-49	11,569	2.4	9,586	2.7	10,539	3.0	1,982	1.1
50-54	3,481	0.7	2,860	0.8	2,519	0.7	411	0.2
55-59	787	0.2	548	0.2	479	0.1	72	0.0
> 59	129	0.0	90	0.0	63	0.0	5	0.0
Race/ethnicity								
White non-hispanic	295,075	60.7	204,645	57.5	247,751	71.2	117,421	65.3
Black non-hispanic	105,042	21.6	65,198	18.3	51,028	14.7	19,661	10.9
Hispanic	51,347	10.6	42,796	12.0	20,027	5.8	25,102	14.0
Asian/Pacific Islander	19,499	4.0	25,461	7.2	14,244	4.1	6,006	3.3
Native American/Alaskan	4,600	0.9	12,527	3.5	2,845	0.8	4,250	2.4
Other	3	0.0	1,662	0.5	2,959	0.8	899	0.5
Marital status								
Single	200,594	41.3	161,502	45.4	113,647	32.6	93,800	52.2
Married	262,198	54.0	194,404	54.6	211,648	60.8	80,345	44.7
Other ²	22,286	4.6	0	0.0	22,162	6.4	5,612	3.1
Education								
High school or less	347,121	71.5	277,261	77.9	218,671	62.8	153,683	85.5
Some college	37,719	7.8	20,284	5.7	43,175	12.4	4,597	2.6
Bachelors	62,267	12.8	37,208	10.5	46,165	13.3	15,648	8.7
Masters	21,183	4.4	5,865	1.6	29,815	8.6	2,797	1.6
Doctorate	9,221	1.9	4,212	1.2	7,700	2.2	434	0.2
Grade								
Enlisted								
E1-E4	216,362	44.5	144,098	40.5	121,094	34.8	108,941	60.6
E5-E9	188,800	38.9	159,093	44.7	154,356	44.3	52,077	29.0
Officer								
O1-O3 (W1-W3)	50,485	10.4	31,579	8.9	43,349	12.5	12,305	6.8
O4-O9 (W4-W5)	30,130	6.2	21,121	5.9	29,311	8.4	6,429	3.6

¹ Subgroups may not add up to total due to missing values.

As of: 1 October 2005

² Includes separated, widowed, divorced.

**Table 2. Military occupations¹ of active component members by Service,
U.S. Armed Forces, 2005**

Characteristic	Army		Navy		Air Force		Marine Corps	
	No.	%	No.	%	No.	%	No.	%
Total²	485,793	100.0	355,906	100.0	348,125	100.0	179,757	100.0
Enlisted								
Infantry, seamen, gun crews	105,496	21.7	27,882	7.8	28,023	8.0	38,138	21.2
Electronic equip repair	24,323	5.0	37,457	10.5	25,014	7.2	10,500	5.8
Communications, intelligence	47,225	9.7	27,926	7.8	23,756	6.8	11,593	6.4
Health care	32,671	6.7	25,996	7.3	20,754	6.0	0	0.0
Technical and allied support	14,144	2.9	3,752	1.1	11,156	3.2	4,057	2.3
Funct support, admin	60,272	12.4	35,521	10.0	56,805	16.3	25,003	13.9
Electric/mech equip repair	57,014	11.7	88,010	24.7	66,878	19.2	25,674	14.3
Craftworkers	8,152	1.7	17,409	4.9	12,658	3.6	3,945	2.2
Service, supply handlers	53,198	11.0	20,983	5.9	13,566	3.9	19,291	10.7
Non-occupational	2,641	0.5	18,259	5.1	16,700	4.8	22,816	12.7
Officers								
General officers and executives	322	0.1	219	0.1	646	0.2	758	0.4
Tactical operations	28,431	5.9	20,735	5.8	24,013	6.9	8,548	4.8
Intelligence	5,272	1.1	2,351	0.7	3,907	1.1	905	0.5
Engineering and maintenance	13,326	2.7	6,108	1.7	11,417	3.3	2,121	1.2
Scientists, professionals	5,053	1.0	2,059	0.6	4,702	1.4	488	0.3
Health care	13,932	2.9	10,307	2.9	11,396	3.3	0	0.0
Administrators	5,610	1.2	2,715	0.8	5,314	1.5	1,527	0.8
Supply, allied specialists	6,915	1.4	2,623	0.7	6,581	1.9	2,373	1.3
Non-occupational	1,488	0.3	5,593	1.6	4,322	1.2	2,014	1.1

¹ Based on DoD occupational area codes.

As of: 1 October 2005

² Subgroups may not add up to total due to missing values.

**Table 3. Demographic characteristics of Reserves, by Service,
U.S. Armed Forces, 2005**

Characteristic	Army		Navy		Air Force		Marine Corps	
	No.	%	No.	%	No.	%	No.	%
Total¹	187,000	100.0	75,806	100.0	75,653	100.0	39,813	100.0
Gender								
Men	143,532	76.8	60,152	79.3	57,829	76.4	37,922	95.3
Women	43,468	23.2	15,654	20.7	17,824	23.6	1,891	4.7
Age (years)								
< 20	11,432	6.1	1,144	1.5	1,217	1.6	4,629	11.6
20-24	43,642	23.3	6,221	8.2	9,120	12.1	19,484	48.9
25-29	27,830	14.9	9,120	12.0	9,154	12.1	7,307	18.4
30-34	22,206	11.9	13,679	18.0	9,606	12.7	3,046	7.7
35-39	26,874	14.4	19,403	25.6	13,921	18.4	2,517	6.3
40-44	25,222	13.5	14,968	19.7	15,027	19.9	1,794	4.5
45-49	15,681	8.4	6,744	8.9	9,211	12.2	753	1.9
50-54	8,595	4.6	3,157	4.2	5,475	7.2	218	0.5
55-59	5,262	2.8	1,286	1.7	2,851	3.8	61	0.2
> 59	256	0.1	83	0.1	71	0.1	1	0.0
Race/ethnicity								
White non-hispanic	110,476	59.1	47,464	62.6	53,084	70.2	26,821	67.4
Black non-hispanic	43,554	23.3	11,112	14.7	11,890	15.7	3,282	8.2
Hispanic	21,184	11.3	7,327	9.7	5,229	6.9	5,474	13.7
Asian/Pacific Islander	8,228	4.4	3,489	4.6	3,094	4.1	1,804	4.5
Native American/Alaskan	1,556	0.8	1,724	2.3	785	1.0	505	1.3
Other	6	0.0	1,196	1.6	325	0.4	177	0.4
Marital status								
Single	81,357	43.5	22,815	30.1	22,514	29.8	26,228	65.9
Married	90,203	48.2	47,453	62.6	44,914	59.4	12,412	31.2
Other ²	15,222	8.1	4,627	6.1	8,224	10.9	1,169	2.9
Education								
High school or less	108,604	58.1	42,982	56.7	44,639	59.0	33,551	84.3
Some college	23,752	12.7	8,766	11.6	8,124	10.7	1,450	3.6
Bachelors	31,221	16.7	14,399	19.0	13,309	17.6	3,572	9.0
Masters	11,283	6.0	4,439	5.9	6,938	9.2	800	2.0
Doctorate	5,138	2.7	1,057	1.4	2,298	3.0	314	0.8
Grade								
Enlisted								
E1-E4	66,203	35.4	18,916	25.0	17,113	22.6	28,405	71.3
E5-E9	84,089	45.0	39,893	52.6	41,887	55.4	8,036	20.2
Officer								
O1-O3 (W1-W3)	16,076	8.6	4,192	5.5	4,401	5.8	760	1.9
O4-O9 (W4-W5)	20,632	11.0	12,804	16.9	12,249	16.2	2,607	6.5

¹ Subgroups may not add up to total due to missing values.

As of: 1 October 2005

² Includes separated, widowed, divorced.

Table 4. Military occupations¹ of Reserves, by Service, U.S. Armed Forces, 2005

Characteristic	Army		Navy		Air Force		Marine Corps	
	No.	%	No.	%	No.	%	No.	%
Total²	187,000	100.0	75,806	100.0	75,653	100.0	39,813	100.0
Enlisted								
Infantry, seamen, gun crews	10,786	5.8	6,279	8.3	6,241	8.2	11,117	27.9
Electronic equip repair	3,015	1.6	5,678	7.5	2,876	3.8	1,324	3.3
Communications, intelligence	5,950	3.2	4,338	5.7	1,936	2.6	2,774	7.0
Health care	15,503	8.3	5,134	6.8	6,518	8.6	0	0.0
Technical and allied support	5,983	3.2	494	0.7	2,111	2.8	498	1.3
Funct support, admin	42,390	22.7	13,131	17.3	15,652	20.7	4,374	11.0
Electric/mech equip repair	17,367	9.3	11,135	14.7	13,067	17.3	4,836	12.1
Craftworkers	9,222	4.9	8,282	10.9	3,608	4.8	1,192	3.0
Service, supply handlers	28,605	15.3	3,822	5.0	3,040	4.0	5,562	14.0
Non-occupational	11,323	6.1	517	0.7	3,891	5.1	4,765	12.0
Officers								
General officers and executives	123	0.1	53	0.1	268	0.4	373	0.9
Tactical operations	5,898	3.2	6,696	8.8	5,212	6.9	1,590	4.0
Intelligence	2,055	1.1	2,059	2.7	1,190	1.6	194	0.5
Engineering and maintenance	3,767	2.0	1,939	2.6	1,960	2.6	318	0.8
Scientists, professionals	4,034	2.2	749	1.0	1,363	1.8	158	0.4
Health care	11,046	5.9	2,983	3.9	3,853	5.1	0	0.0
Administrators	3,417	1.8	1,084	1.4	1,174	1.6	248	0.6
Supply, allied specialists	4,696	2.5	1,131	1.5	1,297	1.7	445	1.1
Non-occupational	974	0.5	302	0.4	287	0.4	32	0.1

¹ Based on DoD occupational area codes.

As of: 1 October 2005

² Subgroups may not add up to total due to missing values.

Table 5. Demographic characteristics, National Guard, by Service, U.S. Armed Forces, 2005

Characteristic	Army		Navy ³		Air Force		Marine Corps ³	
	No.	%	No.	%	No.	%	No.	%
Total¹	330,413	100.0	-	-	105,845	100.0	-	-
Gender								
Men	287,965	87.2	-	-	86,920	82.1	-	-
Women	42,448	12.8	-	-	18,925	17.9	-	-
Age (years)								
< 20	29,382	8.9	-	-	2,877	2.7	-	-
20-24	80,087	24.2	-	-	16,745	15.8	-	-
25-29	53,400	16.2	-	-	14,703	13.9	-	-
30-34	42,353	12.8	-	-	14,600	13.8	-	-
35-39	46,856	14.2	-	-	18,368	17.4	-	-
40-44	36,968	11.2	-	-	17,816	16.8	-	-
45-49	20,280	6.1	-	-	10,389	9.8	-	-
50-54	11,572	3.5	-	-	6,373	6.0	-	-
55-59	9,230	2.8	-	-	3,911	3.7	-	-
> 59	285	0.1	-	-	63	0.1	-	-
Race/ethnicity								
White non-hispanic	244,800	74.1	-	-	83,310	78.7	-	-
Black non-hispanic	44,803	13.6	-	-	8,895	8.4	-	-
Hispanic	24,607	7.4	-	-	6,294	5.9	-	-
Asian/Pacific Islander	7,733	2.3	-	-	4,132	3.9	-	-
Native American/Alaskan	3,130	0.9	-	-	1,554	1.5	-	-
Other	9	0.0	-	-	308	0.3	-	-
Marital status								
Single	146,011	44.2	-	-	35,363	33.4	-	-
Married	162,395	49.1	-	-	60,813	57.5	-	-
Other ²	22,007	6.7	-	-	9,666	9.1	-	-
Education								
High school or less	231,875	70.2	-	-	9,803	9.3	-	-
Some college	51,774	15.7	-	-	75,661	71.5	-	-
Bachelors	37,536	11.4	-	-	14,605	13.8	-	-
Masters	6,875	2.1	-	-	3,561	3.4	-	-
Doctorate	2,188	0.7	-	-	1,355	1.3	-	-
Grade								
Enlisted								
E1-E4	155,765	47.1	-	-	25,107	23.7	-	-
E5-E9	138,479	41.9	-	-	67,099	63.4	-	-
Officer								
O1-O3 (W1-W3)	22,100	6.7	-	-	4,740	4.5	-	-
O4-O9 (W4-W5)	14,069	4.3	-	-	8,895	8.4	-	-

¹ Subgroups may not add up to total due to missing values.

As of: 1 October 2005

² Includes separated, widowed, divorced.

³ Not applicable for Navy or Marine Corps.

**Table 2. Military occupations,¹ National Guard, by Service,
US Armed Forces, 2005**

Characteristic	Army		Navy ³		Air Force		Marine Corps ³	
	No.	%	No.	%	No.	%	No.	%
Total²	330,413	100.0	-	-	105,845	100.0	-	-
Enlisted								
Infantry, seamen, gun crews	71,463	21.6	-	-	8,885	8.4	-	-
Electronic equip repair	9,337	2.8	-	-	8,539	8.1	-	-
Communications, intelligence	16,873	5.1	-	-	4,083	3.9	-	-
Health care	11,294	3.4	-	-	3,904	3.7	-	-
Technical and allied support	8,543	2.6	-	-	4,544	4.3	-	-
Funct support, admin	42,725	12.9	-	-	19,800	18.7	-	-
Electric/mech equip repair	39,650	12.0	-	-	25,569	24.2	-	-
Craftworkers	11,647	3.5	-	-	5,790	5.5	-	-
Service, supply handlers	37,088	11.2	-	-	5,830	5.5	-	-
Non-occupational	3,925	1.2	-	-	5,156	4.9	-	-
Officers								
General officers and executives	194	0.1	-	-	372	0.4	-	-
Tactical operations	15,881	4.8	-	-	5,002	4.7	-	-
Intelligence	1,294	0.4	-	-	439	0.4	-	-
Engineering and maintenance	4,362	1.3	-	-	1,843	1.7	-	-
Scientists, professionals	1,060	0.3	-	-	605	0.6	-	-
Health care	3,016	0.9	-	-	2,060	1.9	-	-
Administrators	2,502	0.8	-	-	1,377	1.3	-	-
Supply, allied specialists	3,554	1.1	-	-	769	0.7	-	-
Non-occupational	3,899	1.2	-	-	359	0.3	-	-

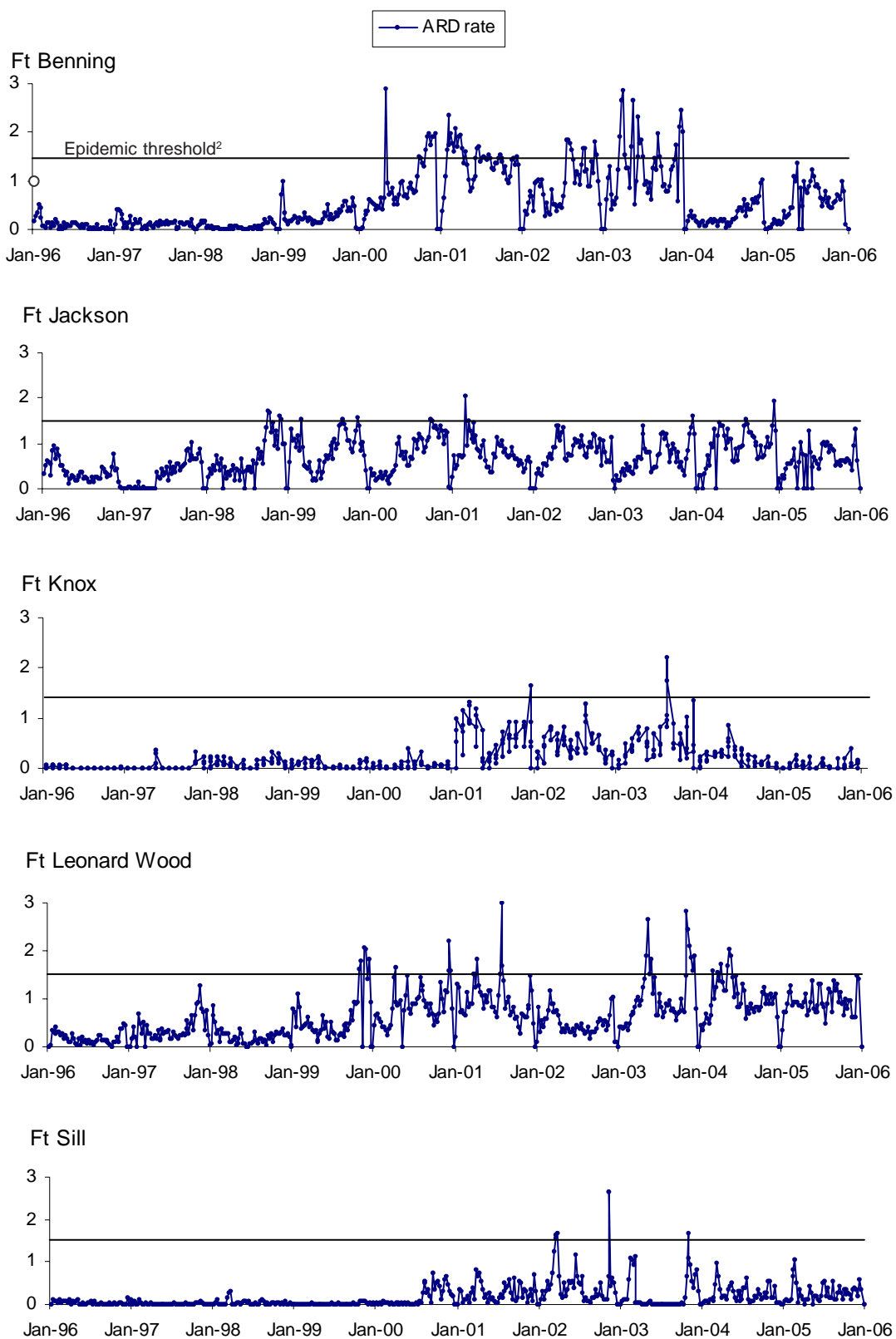
¹ Based on DoD occupational area codes.

As of: 1 October 2005

² Subgroups may not add up to total due to missing values.

³ Not applicable for Navy or Marine Corps.

Acute respiratory disease (ARD) rate,¹ by week, Army basic training centers, 1996-2005.



¹ARD rate = cases per 100 trainees per week

²ARD rate ≥ 1.5 for 2 weeks defines epidemic

**Sentinel reportable events for all beneficiaries¹ at U.S. Army medical facilities,
cumulative numbers² for calendar years 2004 and 2005**

Reporting location	Number of reports all events ³		Food-borne								Vaccine Preventable					
			Campylobacter		Giardia		Salmonella		Shigella		Hepatitis A		Hepatitis B		Varicella	
	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005
NORTH ATLANTIC																
Washington, DC Area	330	402	3	4	1	10	2	5	4	6	.	.	3	3	4	2
Aberdeen, MD	67	60	.	.	.	.	1	.	.	1	.	.	.	.	.	.
FT Belvoir, VA	291	387	10	9	2	1	6	8	2	1	2	.	.	1	1	.
FT Bragg, NC	2,006	1,633	11	8	.	.	48	30	1	3	.	.	.	.	.	.
FT Drum, NY	198	240	.	.	.	.	1	.	.	.	.	.	.	.	.	.
FT Eustis, VA	238	295	1	.	.	.	3	1	.	.	.	.	.	.	.	.
FT Knox, KY	228	301	5	4	4	.	1	4	.	.	.	.	1	.	.	.
FT Lee, VA	195	218	.	.	1	.	.	1	.	.	.	.	.	.	.	.
FT Meade, MD	187	126	1	.	1	.	.	1	.	.	.	.	.	.	.	1
West Point, NY	79	52	1	.	.	.	1	.	.	.	.	.	1	.	.	.
GREAT PLAINS																
FT Sam Houston, TX	359	523	.	.	2	.	3	6	1	2	.	6	.	10	2	.
FT Bliss, TX	390	434	1	1	7	6	10	5	12	7	1	.	3	.	.	.
FT Carson, CO	692	836	2	6	2	3	4	5	1	.	.	1	1	.	.	.
FT Hood, TX	1,671	2,545	8	7	.	1	15	13	59	4	.	.	1	.	.	.
FT Huachuca, AZ	112	79	.	1	.	.	.	.	.	.	.	.	.	.	.	.
FT Leavenworth, KS	43	64	2	.	2	.	1	1	.	1	.	.	.	.	.	.
FT Leonard Wood, MO	255	364	1	1	2	3	3	1	.	.	.	.	1	.	1	3
FT Polk, LA	218	261	2	1	1	1	10	5	.	.	.	.	2	1	.	.
FT Riley, KS	273	327	1	.	2	2	1	2	.	.	1	.	.	.	.	.
FT Sill, OK	203	165	.	.	1	1	3	.	5	2	.	.	.	.	.	.
SOUTHEAST																
FT Gordon, GA	248	418	1	.	.	.	6	.	.	.	.	.	3	12	.	2
FT Benning, GA	467	349	.	2	6	1	16	9	3	2	.	.	.	.	1	.
FT Campbell, KY	875	866	7	3	3	1	5	9	8	4	.	.	.	.	4	1
FT Jackson, SC	341	229	.	.	.	.	.	.	.	.	.	2	.	1	3	.
FT Rucker, AL	75	33	.	.	1	.	3	.	.	.	1	.	.	.	1	.
FT Stewart, GA	688	577	2	.	3	2	12	16	5	27	5	8	9	34	.	1
WESTERN																
FT Lewis, WA	703	563	7	4	2	.	5	1	3	.	.	.	1	.	.	.
FT Irwin, CA	72	76	.	.	.	.	.	1	.	.	.	.	.	1	.	.
FT Wainwright, AK	234	166	1	4	.	.	2	2	.	.	1	.	1	.	.	1
OTHER LOCATIONS																
Hawaii	832	859	20	36	8	7	30	16	.	4	.	1	3	1	2	2
Europe	1,487	1,543	22	17	2	1	28	25	1	1	7	3	1	7	3	3
Korea	546	570	1	1	.	.	1	1	.	.	.	1	2	1	4	.
Total	14,603	15,561	110	109	53	40	221	168	105	65	18	22	33	72	26	16

1. Includes active duty servicemembers, dependents, and retirees.

2. Events reported as of May 15, 2006.

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.

(Cont'd) Sentinel reportable events for all beneficiaries¹ at U.S. Army medical facilities, cumulative numbers² for calendar years 2004 and 2005

Reporting location	Arthropod-borne				Sexually Transmitted								Environmental			
	Lyme Disease		Malaria		Chlamydia		Gonorrhea		Syphilis ³		Urethritis ⁴		Cold		Heat	
	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005
NORTH ATLANTIC																
Washington, DC Area	4	1	.	3	131	177	21	24	7	8	.	.	29	1	11	2
Aberdeen, MD	.	3	.	.	61	20	4	3	.	2	.	.	.	.	.	.
FT Belvoir, VA	1	1	2	.	229	229	26	48	3	1	.	.	.	.	2	.
FT Bragg, NC	.	.	10	.	1,363	1,128	292	217	20	3	137	108	3	1	112	112
FT Drum, NY	.	.	4	.	117	174	7	17	.	.	.	.	1	2	.	1
FT Eustis, VA	2	.	.	.	191	168	22	37	1	.	.	.	.	2	3	39
FT Knox, KY	.	1	1	1	178	192	18	34	.	.	.	.	.	7	14	20
FT Lee, VA	1	1	.	.	160	174	30	36	.	.	.	.	.	1	1	5
FT Meade, MD	3	.	.	.	157	112	24	12	.	.	.	.	.	.	.	.
West Point, NY	25	8	.	.	42	31	1	2	.	.	.	.	1	1	4	3
GREAT PLAINS																
FT Sam Houston, TX	1	.	2	.	230	325	52	92	1	7	.	.	.	.	22	11
FT Bliss, TX	3	.	.	1	253	181	63	48	1	7	.	.	.	.	3	14
FT Carson, CO	.	.	1	4	542	604	62	83	1	.	63	24	.	1	.	.
FT Hood, TX	1	.	3	1	934	1,566	289	495	3	1	276	198	.	.	49	140
FT Huachuca, AZ	.	.	.	.	106	58	6	17	.	.	.	.	.	.	.	2
FT Leavenworth, KS	.	.	.	.	27	51	9	7	.	1	.	.	1	1	.	2
FT Leonard Wood, MO	.	.	1	1	186	227	48	47	.	2	.	1	1	4	8	19
FT Polk, LA	.	.	1	1	162	155	36	42	2	1	.	.	.	.	2	48
FT Riley, KS	1	.	1	.	184	202	43	64	.	1	.	.	5	9	22	11
FT Sill, OK	.	.	.	.	133	56	22	32	1	4	.	.	2	.	32	31
SOUTHEAST																
FT Gordon, GA	.	.	1	2	199	260	27	28	2	1	.	.	.	.	3	53
FT Benning, GA	.	.	4	2	245	189	111	53	.	1	.	.	.	1	80	86
FT Campbell, KY	.	2	2	1	612	598	113	101	1	.	.	.	.	1	88	68
FT Jackson, SC	.	.	1	.	194	179	34	30	1	.	.	1	6	.	61	6
FT Rucker, AL	.	.	.	.	52	23	12	9	.	.	.	.	.	.	4	.
FT Stewart, GA	.	3	.	.	370	269	155	109	3	4	42	16	.	1	46	39
WESTERN																
FT Lewis, WA	1	1	1	5	416	382	57	62	.	.	74	84	1	.	2	2
FT Irwin, CA	.	.	.	.	60	52	10	16	.	.	.	.	.	.	2	4
FT Wainwright, AK	.	.	2	1	131	119	12	11	.	1	.	.	59	19	.	.
OTHER LOCATIONS																
Hawaii	.	.	2	14	587	589	115	82	.	.	.	.	.	.	16	15
Europe	17	42	6	3	1,083	1,009	239	264	3	4	.	1	2	5	7	4
Korea	.	.	11	9	436	452	58	78	3	2	1	.	6	3	18	13
Total	60	63	56	49	9,771	9,951	2,018	2,200	53	51	593	433	117	60	612	750

1. Includes active duty servicemembers, dependents, and retirees.

2. Events reported as of May 15, 2006.

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 beneficiaries¹ at U.S. Army medical facilities,
cumulative numbers² for calendar years through April 30, 2005 and 2006**

Reporting location	Number of reports all events ³		Food-borne								Vaccine Preventable					
			Campylobacter		Giardia		Salmonella		Shigella		Hepatitis A		Hepatitis B		Varicella	
	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006
NORTH ATLANTIC																
Washington, DC Area	224	105	1	.	3	.	1	1	1	.	.	.	2	.	1	.
Aberdeen, MD	48	0	.	.	.	.	.	.	1	.	.	.	.	.	.	.
FT Belvoir, VA	174	137	3	3	.	.	3	3	.	1	.	.	.	.	.	.
FT Bragg, NC	617	531	2	5	.	.	4	5	.	.	.	.	.	.	.	.
FT Drum, NY	87	40	.	.	.	.	.	.	.	.	.	.	.	.	.	.
FT Eustis, VA	126	75	.	.	.	.	1	.	.	.	.	.	.	.	.	.
FT Knox, KY	103	81	.	.	.	.	2	.	.	.	.	.	.	.	.	.
FT Lee, VA	65	159	.	.	.	.	.	.	.	.	.	.	.	.	.	.
FT Meade, MD	33	45	.	.	.	.	.	.	.	.	.	.	.	.	1	.
West Point, NY	24	15	.	.	.	.	.	1	.	.	.	.	.	.	.	.
GREAT PLAINS																
FT Sam Houston, TX	199	247	1	.	1	2	1	1	3	1	.	1	.	.	.	.
FT Bliss, TX	192	172	.	.	.	.	2	.	1	.	.	1	2	1	.	.
FT Carson, CO	329	273	2	.	1	.	.	3	.	.	.	1	.	.	.	.
FT Hood, TX	781	590	1	.	.	.	.	2	3	.	.	.	.	.	.	.
FT Huachuca, AZ	27	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.
FT Leavenworth, KS	13	12	.	.	.	.	1	.	.	.	.	.	.	.	.	.
FT Leonard Wood, MO	147	110	.	.	.	1	.	1	.	.	.	.	.	.	1	4
FT Polk, LA	86	80	.	2	1	.	.	.	.	.	.	2	.	.	.	.
FT Riley, KS	121	127	.	1	1	.	.	.	.	.	.	.	.	.	.	.
FT Sill, OK	56	88	.	.	.	.	.	1	1	.	.	.	.	.	.	1
SOUTHEAST																
FT Gordon, GA	130	170	.	.	.	.	.	.	.	.	.	.	1	9	.	.
FT Benning, GA	85	124	.	2	.	1	1	2	2	.	.	.	.	.	.	.
FT Campbell, KY	438	256	.	.	.	.	2	.	2	.	.	.	.	.	1	.
FT Jackson, SC	53	83	.	.	.	.	.	.	.	.	2	.	.	.	.	.
FT Rucker, AL	11	20	.	1	.	.	.	.	.	.	.	.	.	.	.	.
FT Stewart, GA	207	219	.	.	.	.	.	.	.	2	6	1	16	2	.	2
WESTERN																
FT Lewis, WA	235	233	2	.	.	.	1	.	.	.	.	.	.	.	.	1
FT Irwin, CA	28	26	.	.	.	.	.	.	.	.	.	.	.	.	.	.
FT Wainwright, AK	72	62	.	.	.	.	.	1	.	.	.	.	.	.	.	.
OTHER LOCATIONS																
Hawaii	281	327	7	8	1	.	4	6	.	1	.	.	.	.	.	.
Europe	680	310	7	5	.	.	5	4	.	.	2	1	2	1	2	1
Korea	175	171	.	.	.	.	.	.	.	.	.	.	.	1	.	1
Total	5,847	4,904	26	27	8	4	28	31	14	5	10	7	23	14	6	10

1. Includes active duty servicemembers, dependents, and retirees.

2. Events reported by May 7, 2005 and 2006.

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.

(Cont'd) Sentinel reportable events for all beneficiaries¹ at U.S. Army medical facilities, cumulative numbers² for calendar years through April 30, 2005 and 2006

Reporting location	Arthropod-borne				Sexually Transmitted								Environmental			
	Lyme Disease		Malaria		Chlamydia		Gonorrhea		Syphilis ³		Urethritis ⁴		Cold		Heat	
	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006
NORTH ATLANTIC																
Washington, DC Area	.	.	.	2	68	50	13	8	5	1	.	.	1	.	.	.
Aberdeen, MD	.	.	.	.	14	.	2	.	.	.	.	.	.	.	.	.
FT Belvoir, VA	.	.	.	.	71	52	19	12	.	.	.	.	.	.	.	.
FT Bragg, NC	.	.	.	2	453	389	86	51	2	3	44	56	1	1	8	13
FT Drum, NY	.	.	.	.	36	33	4	7	.	.	.	.	1	.	.	.
FT Eustis, VA	.	.	.	.	63	50	14	17	.	.	.	.	2	.	.	.
FT Knox, KY	.	2	.	.	60	59	5	13	.	.	.	.	1	3	.	.
FT Lee, VA	.	.	.	.	53	112	11	21	.	.	.	.	1	.	.	.
FT Meade, MD	.	.	.	.	30	39	2	6	.	.	.	.	.	.	.	.
West Point, NY	3	.	.	.	15	9	.	.	.	.	.	.	1	.	.	.
GREAT PLAINS																
FT Sam Houston, TX	.	.	1	1	70	116	6	20	.	2	.	.	.	.	.	.
FT Bliss, TX	.	.	.	.	111	123	32	39	2	1	.	.	.	.	3	.
FT Carson, CO	.	.	.	.	187	153	29	32	.	.	11	10	1	.	.	.
FT Hood, TX	.	.	.	.	421	340	174	92	.	.	108	5	.	.	2	2
FT Huachuca, AZ	.	.	.	.	18	14	7	1	.	.	.	.	.	1	1	.
FT Leavenworth, KS	.	.	.	.	11	10	.	2	.	.	.	.	1	.	.	.
FT Leonard Wood, MO	.	.	.	.	70	68	20	7	.	.	1	.	4	.	1	.
FT Polk, LA	.	.	.	.	61	57	18	19	1	.	.	.	.	.	.	.
FT Riley, KS	.	1	.	.	58	106	24	11	.	.	.	.	5	.	.	.
FT Sill, OK	.	.	.	.	21	20	10	9	.	2	.	.	.	.	.	.
SOUTHEAST																
FT Gordon, GA	.	.	.	.	81	110	7	22	1	.	.	.	.	.	.	.
FT Benning, GA	.	.	1	.	56	92	20	22	.	.	.	.	1	.	2	1
FT Campbell, KY	.	.	.	.	299	171	64	23	.	.	.	.	1	.	3	.
FT Jackson, SC	.	.	.	.	39	75	10	8	.	.	.	.	.	.	.	.
FT Rucker, AL	.	.	.	.	5	18	6	1	.	.	.	.	.	.	.	.
FT Stewart, GA	.	.	.	.	115	146	41	48	.	1	7	7	.	1	1	.
WESTERN																
FT Lewis, WA	.	.	3	1	158	176	26	31	.	.	28	18	.	.	.	.
FT Irwin, CA	.	.	.	.	21	23	7	3	.	.	.	.	.	.	.	.
FT Wainwright, AK	.	.	1	1	48	34	6	4	.	.	.	.	13	16	.	.
OTHER LOCATIONS																
Hawaii	.	.	2	.	169	241	26	43	.	.	.	.	.	.	.	2
Europe	3	4	.	1	417	197	107	71	2	.	1	.	5	.	.	.
Korea	.	.	.	.	145	126	23	35	1	1	.	.	3	2	1	.
Total	6	7	8	8	3,444	3,209	819	678	14	11	200	96	42	24	22	18

1. Includes active duty servicemembers, dependents, and retirees.

2. Events reported by May 7, 2005 and 2006.

3. Primary and secondary.

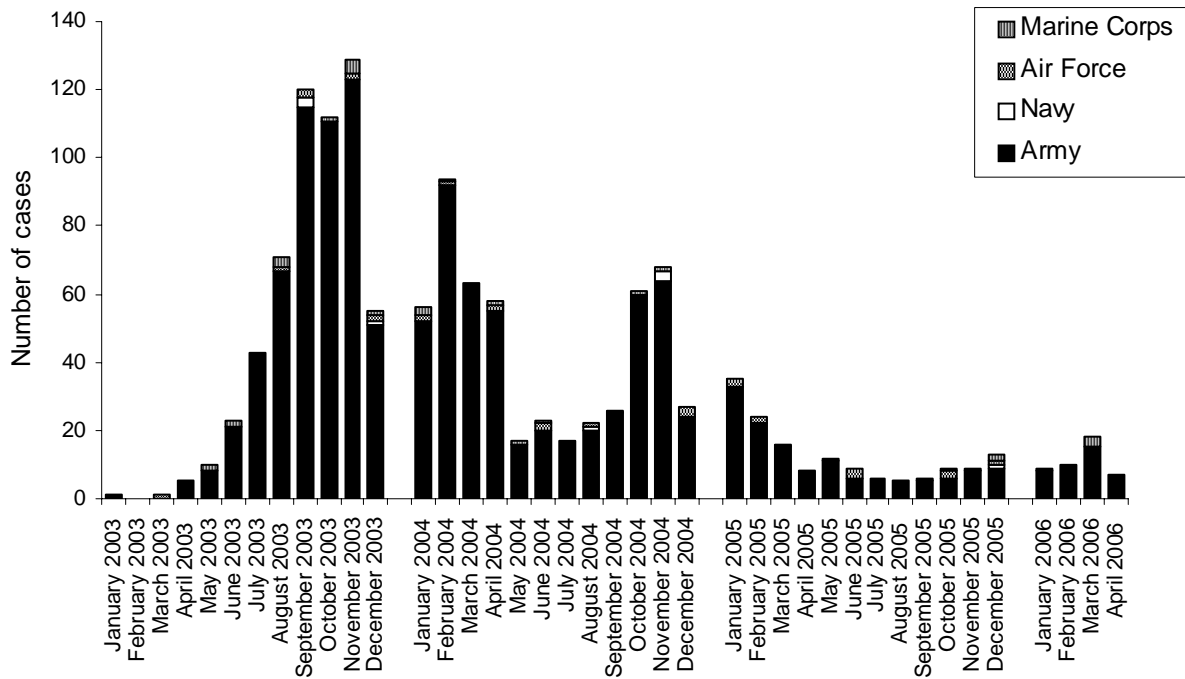
4. Urethritis, non-gonococcal (NGU).

Note: Completeness and timeliness of reporting vary by facility.

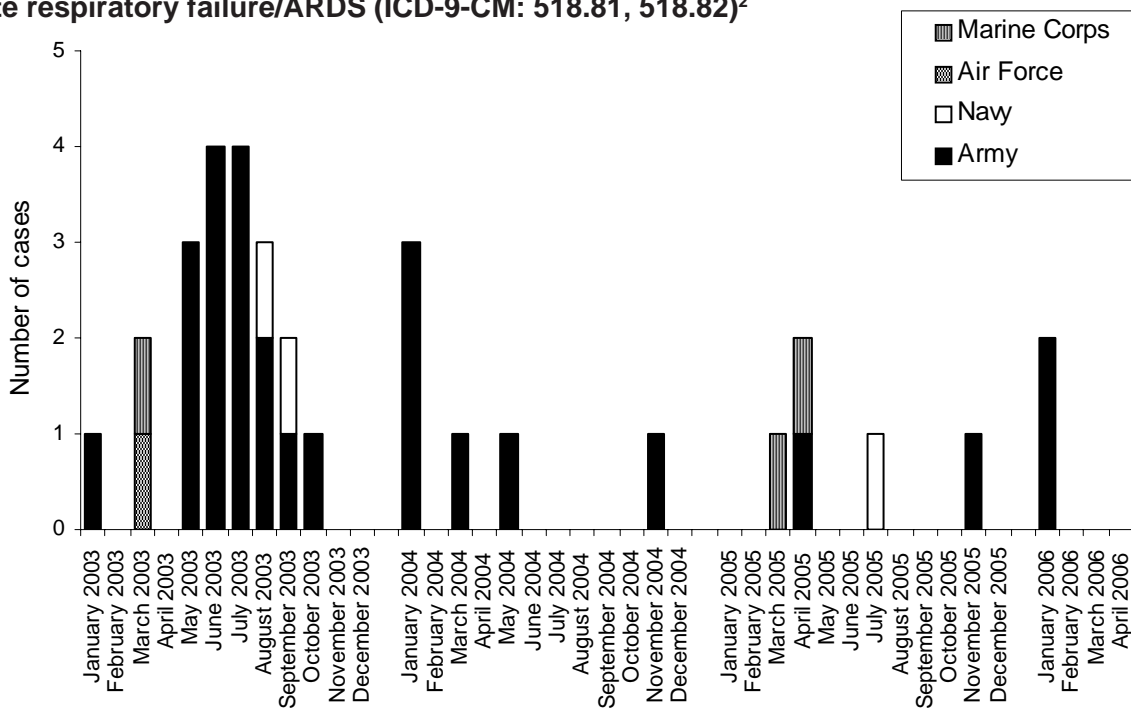
Source: Army Reportable Medical Events System.

Deployment related conditions of special surveillance interest, U.S. Armed Forces, by month and service, January 2003-March 2006

Leishmaniasis (ICD-9-CM: 085.0-85.5)¹



Acute respiratory failure/ARDS (ICD-9-CM: 518.81, 518.82)²



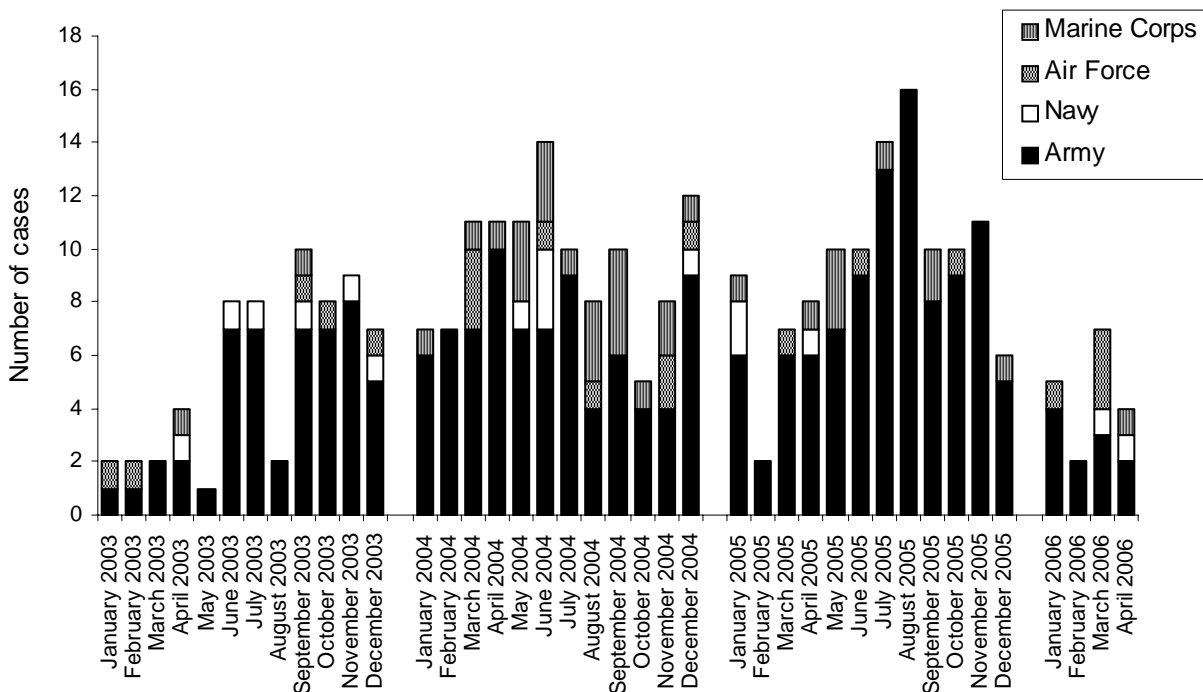
Footnotes:

¹ Indicator diagnosis (one per individual) during a hospitalization, ambulatory visit, and/or from a notifiable medical event during/after service in OEF/OIF.

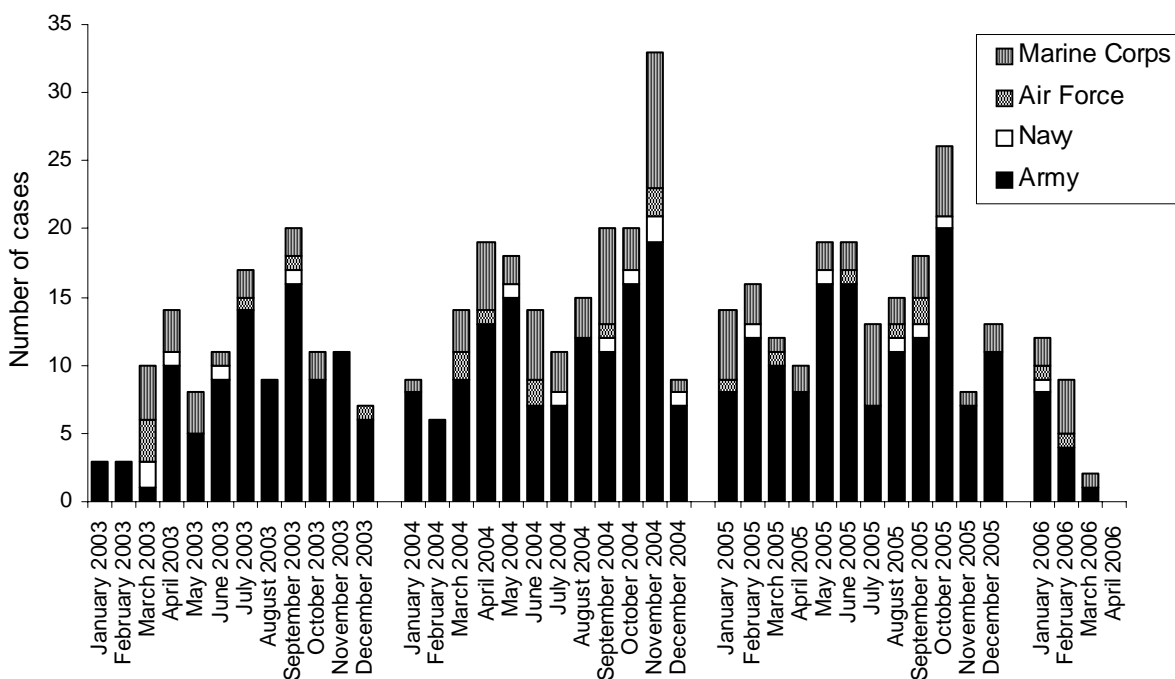
² Indicator diagnosis (one per individual) during a hospitalization while deployed to/within 30 days of returning from OEF/OIF.

(Con't) Deployment related conditions of special surveillance interest, U.S. Armed Forces, by month and service, January 2003-March 2006

Deep vein phlebitis/thromboembophletbitis and/or pulmonary embolism/infarction (ICD-9-CM: 541.1, 451.81, 415.1)³



Amputations (ICD-9-CM: 84.0, 84.1, 887, 896, V49.6, V49.7)⁴



Footnotes:

³ Indicator diagnosis (one per individual) during a hospitalization or ambulatory visit while deployed to/within 30 days of returning from OEF/OIF.

⁴ Indicator diagnosis (one per individual) during a hospitalization of a servicemember during/after service in OEF/OIF.

Commander
U.S. Army Center for Health Promotion
and Preventive Medicine
ATTN: MCHB-TS-EDM
5158 Blackhawk Road
Aberdeen Proving Ground, MD 21010-5422

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Lt Col Sean Moore, MS, MD (USAF)
CPT Paul Ciminera, MD, MPH (USA)
CPT Remington Nevin, MD, MPH (USA)

Lead Analyst

Dr. Toan Le, PhD

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Inquiries regarding content or material to be considered for publication should be directed to: Editor, Army Medical Surveillance Activity, Building T-20, Room 213 (Attn: MCHB-TS-EDM), 6900 Georgia Avenue, NW, Washington, D.C. 20307-5001. E-mail: editor@amsa.army.mil

To be added to the mailing list, contact the Army Medical Surveillance Activity @ (202) 782-0471, DSN 662-0471. E-mail: msmr@amsa.army.mil