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Malaria Among Active Duty Soldiers, US Army, 2002

Malaria is a mosquito-transmitted febrile infectious disease that is endemic throughout the tropics.¹ It is estimated that malaria accounts for nearly 500 million clinically significant cases and more than one million deaths each year worldwide.^{2,3} In recent years, the intensity and extent of malaria endemicity have increased.^{2,3}

In the U.S. Army, many soldiers are permanently assigned in malaria endemic areas; in addition, many soldiers are exposed to malaria risk during operations and training overseas.⁴⁻⁹ Since the mid-1990s, a majority of malaria cases among U.S. soldiers have been caused by *Plasmodium vivax* infections acquired along the Demilitarized Zone (DMZ) in Korea.⁷⁻¹³ Because many *P. vivax* infections acquired in Korea have long incubation times, many cases acquired by U.S. soldiers in Korea are clinically expressed and diagnosed during subsequent assignments outside of Korea.¹¹⁻¹³ This report summarizes the malaria experience of U.S. Army soldiers during calendar year 2002.

Methods. The Defense Medical Surveillance System was searched to identify all hospitalizations and reports to the Reportable Medical Events System (RMES) during calendar year 2002 that included diagnoses of malaria (ICD-9-CM: 084.0-084.9). Only one episode of malaria per soldier was included. Locations of malaria acquisition were estimated using the following algorithm: (1) cases diagnosed in Korea were considered Korea-acquired; (2) cases that were documented with reports (through the Army's Reportable Medical Events System) that listed exposures to malaria endemic locations were considered acquired in those locations; (3) cases among soldiers who had been assigned to Korea within 2-years of diagnoses were considered acquired in Korea; (4) all remaining cases were considered acquired in "other/unknown" areas.

Results. During 2002, fifty-seven soldiers were diagnosed with malaria. Fewer than half (n=24, 42%) of all cases were hospitalized. In 2002 compared to 2001¹¹, there were 14 more cases of vivax malaria, 7

fewer cases of falciparum malaria, and 5 more cases overall (figure 1).

Of 36 soldiers diagnosed with vivax malaria, nearly 80% were White and more than half were younger than 25 (table 1). In contrast, of 10 soldiers diagnosed with falciparum malaria, 80% were Black and all but one were older than 30 (table 1). Overall, there was only one report of malaria in a female soldier (table 1).

Approximately two-thirds (n = 39) of all cases were considered acquired in Korea; however, fewer than one-third (n = 17) of all cases were diagnosed in Korea (figure 2). Of 17 cases diagnosed in Korea, 13 presented in July, August, or September—during or immediately following the warmest and wettest months of the year (figure 3). Malaria cases were also diagnosed at approximately 20 different military medical facilities in Hawaii, Europe, and throughout the United States (figure 2).

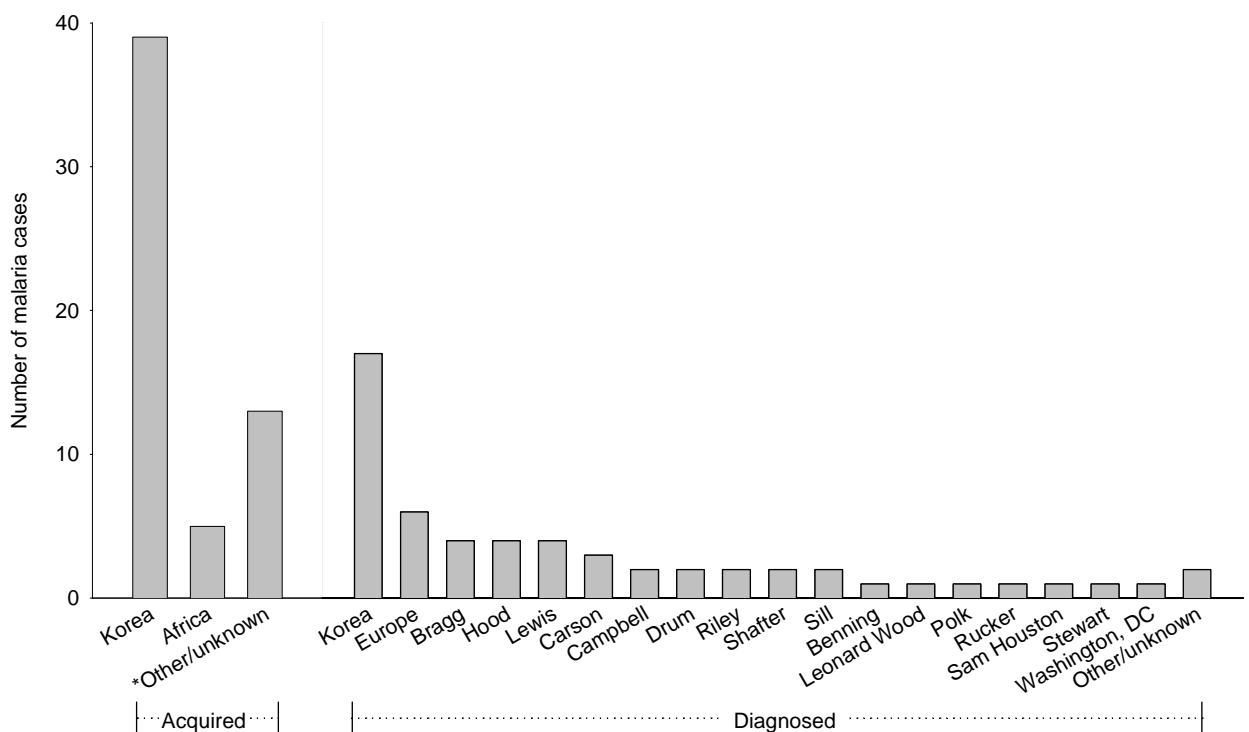
Editorial comment. During the past 3 years, the numbers of malaria cases overall among U.S. soldiers have been relatively stable; however, in 2002 compared to 2001, there were more cases of vivax malaria and fewer cases of falciparum malaria.¹¹

Since the mid-1990s, *P. vivax* infections acquired during summer transmission seasons near the demilitarized zone in Korea have accounted for a majority of malaria cases among U.S. soldiers. Of general concern, *P. vivax* infections acquired in Korea often have long latency periods; and as a result, more than half of all cases acquired by soldiers in Korea are clinically manifested at locations outside of Korea.¹¹⁻¹³ In 2002, malaria was diagnosed among US soldiers at more than 20 different locations worldwide; and more than two-thirds of all cases were diagnosed at medical facilities remote from locations where malaria is endemic. Providers of primary medical care to U.S. soldiers in nonmalarious areas (e.g., U.S., Europe) must be alert for presentations of malaria acquired during assignments, deployments, or travel in malarious areas (e.g., Korea, Africa, Central/South America, southeast Asia).

Figure 1. Malaria cases, overall and by plasmodium species, by year, active duty, US Army, 1995-2002.



Figure 2. Malaria cases by geographical locations of acquisition and diagnosis, active duty, US Army, 2002.



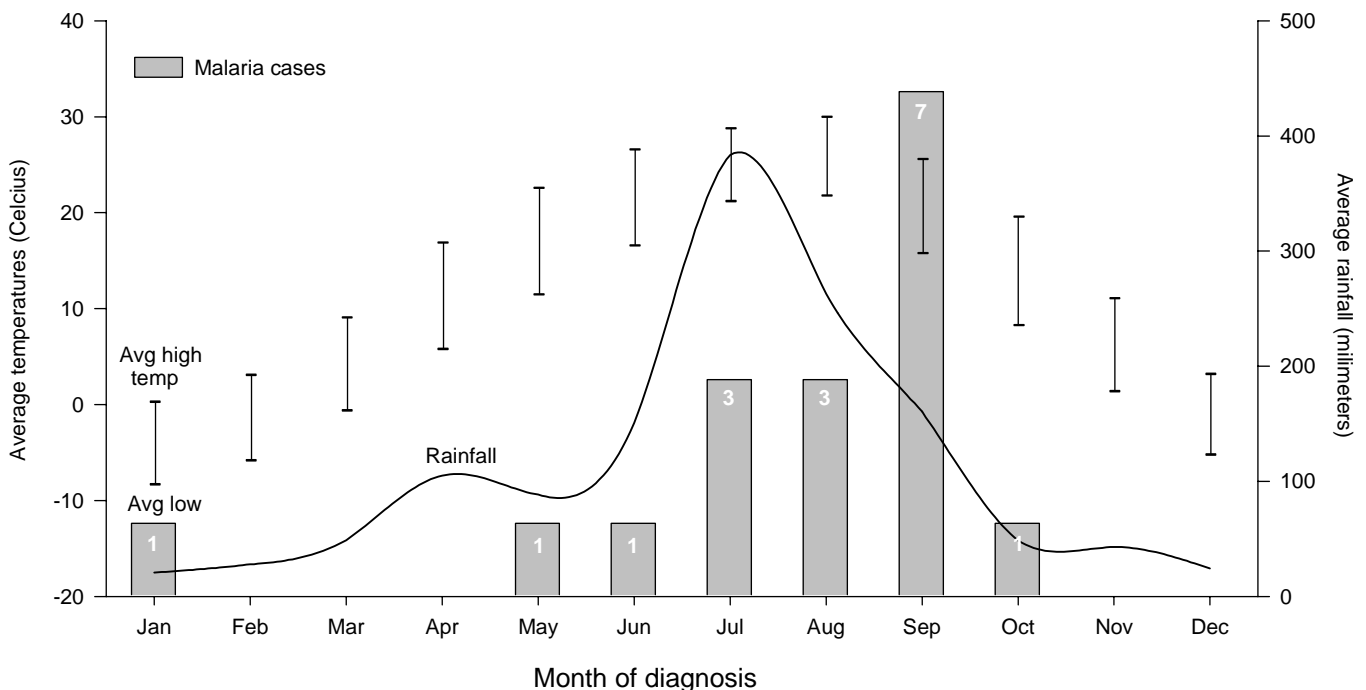
*Other/unknown includes Papua New Guinea, Honduras, and Cambodia.

Analysis and report by Garret R. Lum, MPH, Analysis Group, Army Medical Surveillance Activity.

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Figure 3. Number of malaria cases acquired and diagnosed in Korea, in relation to average monthly temperature ranges and rainfall, active duty, US Army, 2002.



*Data was adapted from www.worldclimate.com (Seoul, Korea).

Table 1. Malaria cases, by selected demographic characteristics, active duty, US Army, 2002.

	<i>P. vivax</i>	<i>P. falciparum</i>	Other/unknown	Total	
	No.	No.	No.	No.	%
Total	36	10	11	57	100.0
Gender					
Male	36	10	10	56	98.2
Female	0	0	1	1	1.8
Age group					
≤ 24	20	0	3	23	41.0
25-29	8	1	6	15	26.3
≥ 30	8	9	2	19	33.3
Race/ethnicity					
White	28	1	6	35	62.0
Black	5	8	2	15	26.3
Other	3	1	3	7	12.3

Mortality Trends among Active Duty Military Personnel, 1992-2001

In the U.S. military, medical surveillance is conducted to identify and characterize threats to the health, fitness, and operational effectiveness of military populations. Deaths of active duty servicemembers are events of significant medical surveillance concern. This report summarizes the mortality experience of active duty military personnel from 1992 through 2001 and highlights mortality trends over the 10-year surveillance period.

Methods. The occurrence, nature, and circumstances of every death of an active duty servicemember are reported using Department of Defense (DoD) Form 1300, Report of Casualty. Casualty reports are forwarded through military service reporting channels to a central DoD archive that is maintained by the Directorate for Information Operations and Reports (DIOR), Washington Headquarters Services, Washington, DC. These reports are also forwarded to the Armed Forces Institute of Pathology (AFIP) for further investigation. To the extent possible, each death is classified as “accident,” “suicide,” “homicide,” “illness,” “hostile action/terrorism,” or “undetermined/pending.” Periodically, casualty files are transmitted from both DIOR and AFIP to the Army Medical Surveillance Activity (AMSA) for inclusion in the data inventory of the Defense Medical Surveillance System (DMSS).

Results. From 1992 through 2001, 8,570 servicemembers died while on active duty (overall mortality rate: 57.38 per 100,000 servicemembers per year [p-yrs]). Of the military services, the Air Force had the lowest overall mortality rate (42.89 per 100,000 p-yrs) and the Marines had the highest (71.89 per 100,000 p-yrs) (table 1). During the surveillance period, mortality rates generally declined. The decline of mortality rates overall was largely attributable to declines in each of the services in accident-related deaths (figures 1-4).

More than half (53%) of all active duty deaths were attributable to accidents, and more than one-fourth of all deaths resulted from intentional acts (suicide: 20%, homicide: 6%, hostile action and terrorism: 1%). Illnesses (18%) and undetermined/

pending circumstances accounted for the remainder (table 1).

Accidents. Accident-related death rates were two to three times higher among men than women; however, among both men and women, accident-related death rates declined with age (table 1). Relative to their counterparts, accidental deaths occurred more frequently among single, enlisted personnel in combat occupations (table 1). The Marines had the highest and least stable declining rate of accidental deaths of any of the services (figure 4).

Illnesses. Illness-related mortality rates were higher among men than women; however, among both men and women, illness-related mortality rates increased sharply with age (table 1). For example, illness-related mortality rates were approximately five times higher among servicemembers older than 34 compared to those younger than 25. Illness-related death rates (unadjusted) were highest in the Army and Navy and lowest in the Marines (table 1).

Suicides. Suicide rates were two to three times higher among men than women (table 1). Relative to their counterparts, suicides were less frequent among servicemembers who were Black, married, officers, and in the Navy and Air Force (table 1). Suicide rates did not significantly vary across occupational groups (table 1).

Homicides. Female, Black, enlisted, and single servicemembers were more frequent victims of homicide than their respective counterparts (table 1). Homicide was the only specific manner of death in which women had a higher rate than men.² Homicide-related death rates generally decreased with increasing age. Homicide-related death rates (unadjusted) were relatively high in the Marines and Army and in combat occupational groups (table 1).

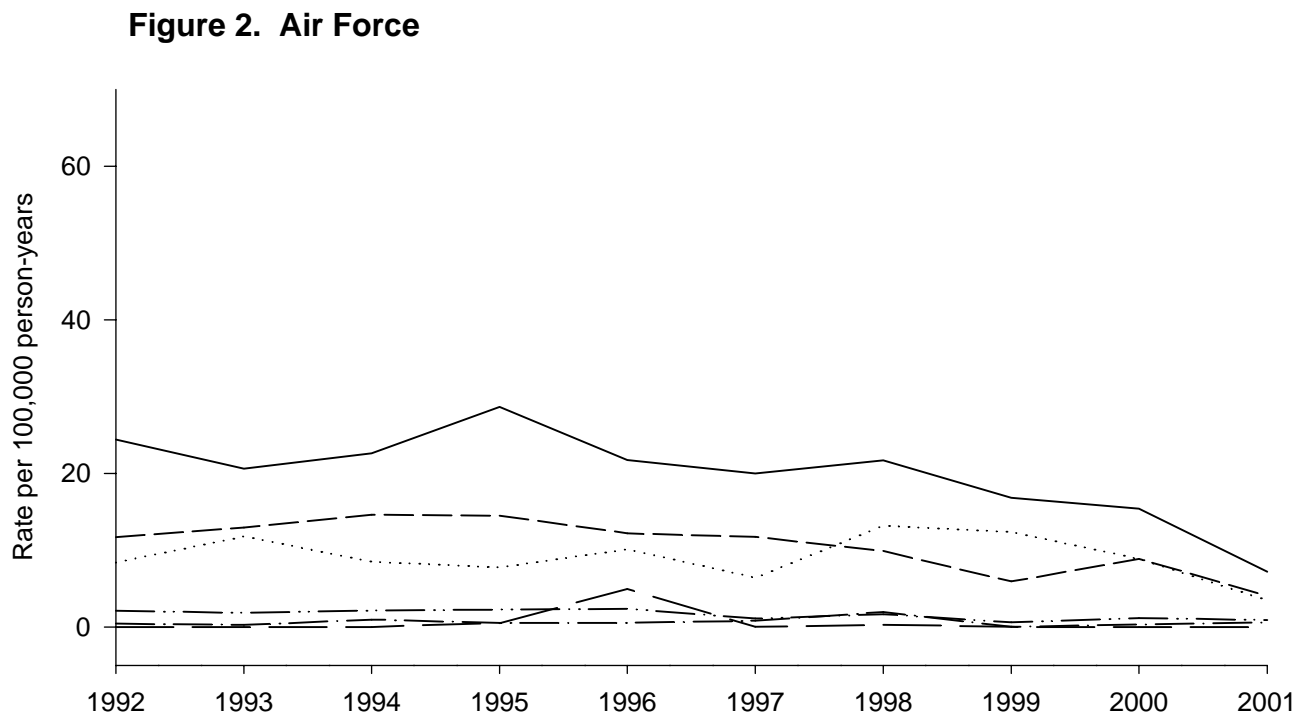
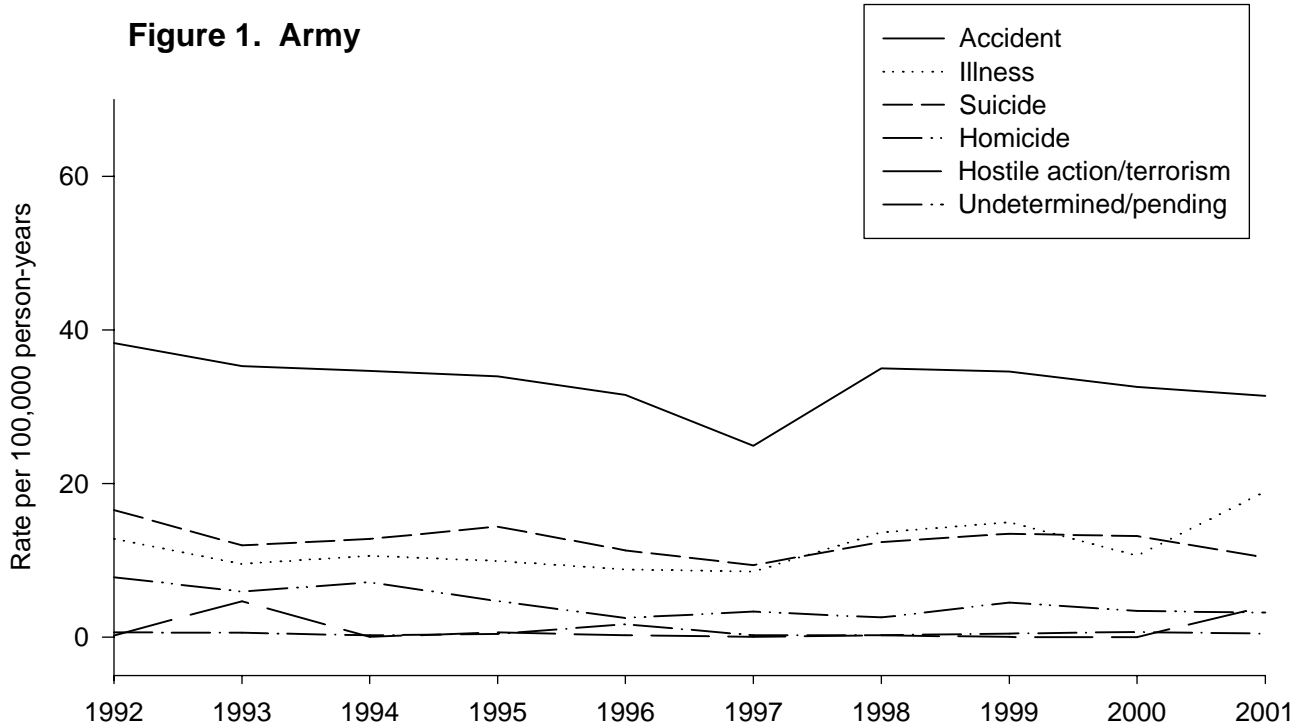
Editorial comment. From 1992 to 2001, mortality rates among active duty military personnel generally declined. The decline in death rates overall was largely attributable to consistent and across-the-board declines in accidental death rates. It is likely that declines in accidental death rates were due at least in part to aggressive accident prevention and safety programs of the services. However, accidents remain

Table 1. Mortality rate*, overall and by manner, by demographic characteristics, active duty, US Armed Forces, 1992-2001

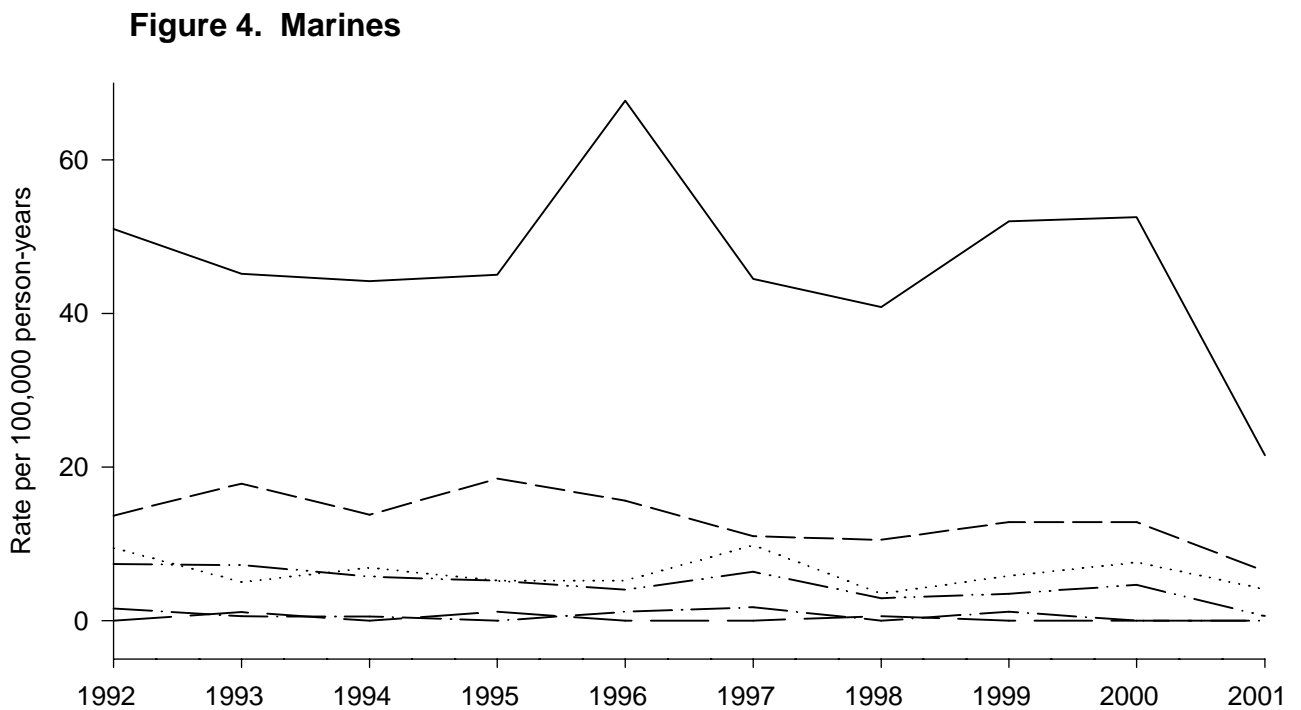
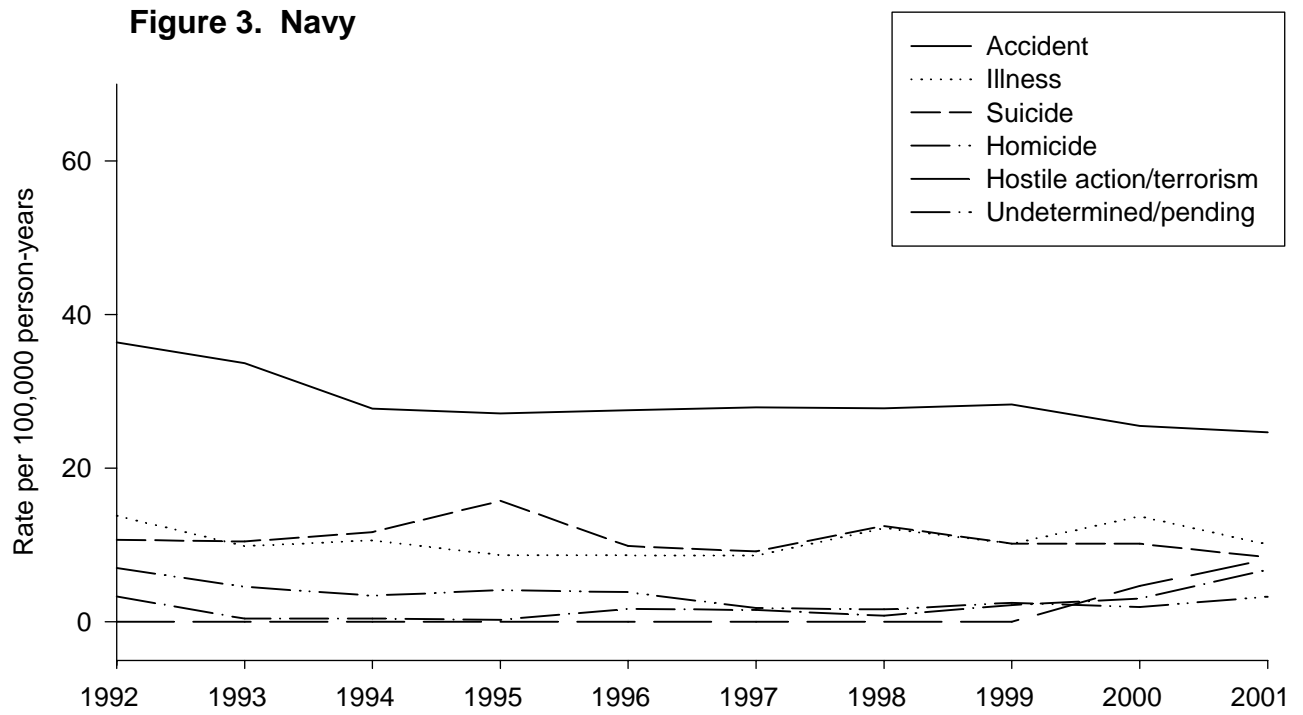
	Overall	Accident	Illness	Suicide	Homicide	Hostile action/ terrorism	Undetermined/ pending
Total	57.38	30.21	10.09	11.73	3.54	0.84	0.97
Gender							
Male	61.42	32.81	10.50	12.90	3.40	0.86	0.96
Female	30.45	12.95	7.37	3.94	4.45	0.72	1.02
Age (years)							
15-19	61.56	41.94	5.01	9.59	3.74	0.59	0.68
20-24	67.95	43.20	4.55	12.73	5.55	0.70	1.27
25-29	49.63	28.17	5.64	11.47	2.96	0.66	0.72
30-34	45.56	22.05	7.72	11.70	2.44	0.95	0.71
35-39	50.20	17.34	17.39	11.38	2.07	0.94	1.08
40-65	68.39	13.31	39.07	11.29	1.86	1.70	1.16
Race							
White	55.69	30.55	8.83	12.30	2.20	0.82	1.01
Black	58.95	26.16	14.35	8.81	7.93	0.82	0.88
Other	71.65	39.46	10.80	14.65	4.71	1.18	0.86
Marital status							
Single	69.80	43.56	7.21	12.28	4.64	0.98	1.44
Married	47.54	21.09	11.49	10.97	2.85	0.76	0.71
Other	71.81	31.49	19.20	18.05	2.50	0.77	0.00
Service							
Army	63.67	33.28	11.72	12.56	4.55	1.04	0.52
Air Force	42.98	20.25	9.08	10.84	1.63	0.56	0.61
Marines	71.89	46.49	6.29	13.33	4.80	0.29	0.69
Navy	57.31	29.09	10.66	10.92	3.58	1.11	1.95
Grade							
Enlisted	59.31	30.81	9.88	12.83	4.00	0.75	1.06
Officer	46.86	26.94	11.22	5.78	1.03	1.37	0.51
Occupation							
Combat	72.73	44.50	9.98	11.96	4.19	1.07	1.04
Healthcare	41.26	16.83	9.71	11.20	2.74	0.08	0.70
Other	54.69	27.51	10.17	11.73	3.43	0.87	0.98

* Rate per 100,000 person-years

Figures 1-4. Mortality rate, by manner, year and service, active duty military, 1992-2001.



Figures 1-4 (continued). Mortality rate, by manner, year and service, active duty military, 1992-2001.



by far the leading cause of deaths of U.S. servicemembers.¹

While military service is inherently stressful and at times dangerous, mortality rates among active duty military members were significantly lower than those in the general US population.^{2,3} This finding is not surprising since, for example, servicemembers are selected for military service based on their past medical histories and their health at the time of accession to service (“healthy worker effect”). In addition, all servicemembers have access to “free” state-of-the-art preventive and curative medical care, and those who develop or manifest life threatening medical conditions are likely to be discharged from active service prior to their deaths (e.g., through medical disability retirement).

In summary, recent 10-year mortality experience suggests that (1) programs to enhance the health and safety of military servicemembers have been effective; (2) military safety and health

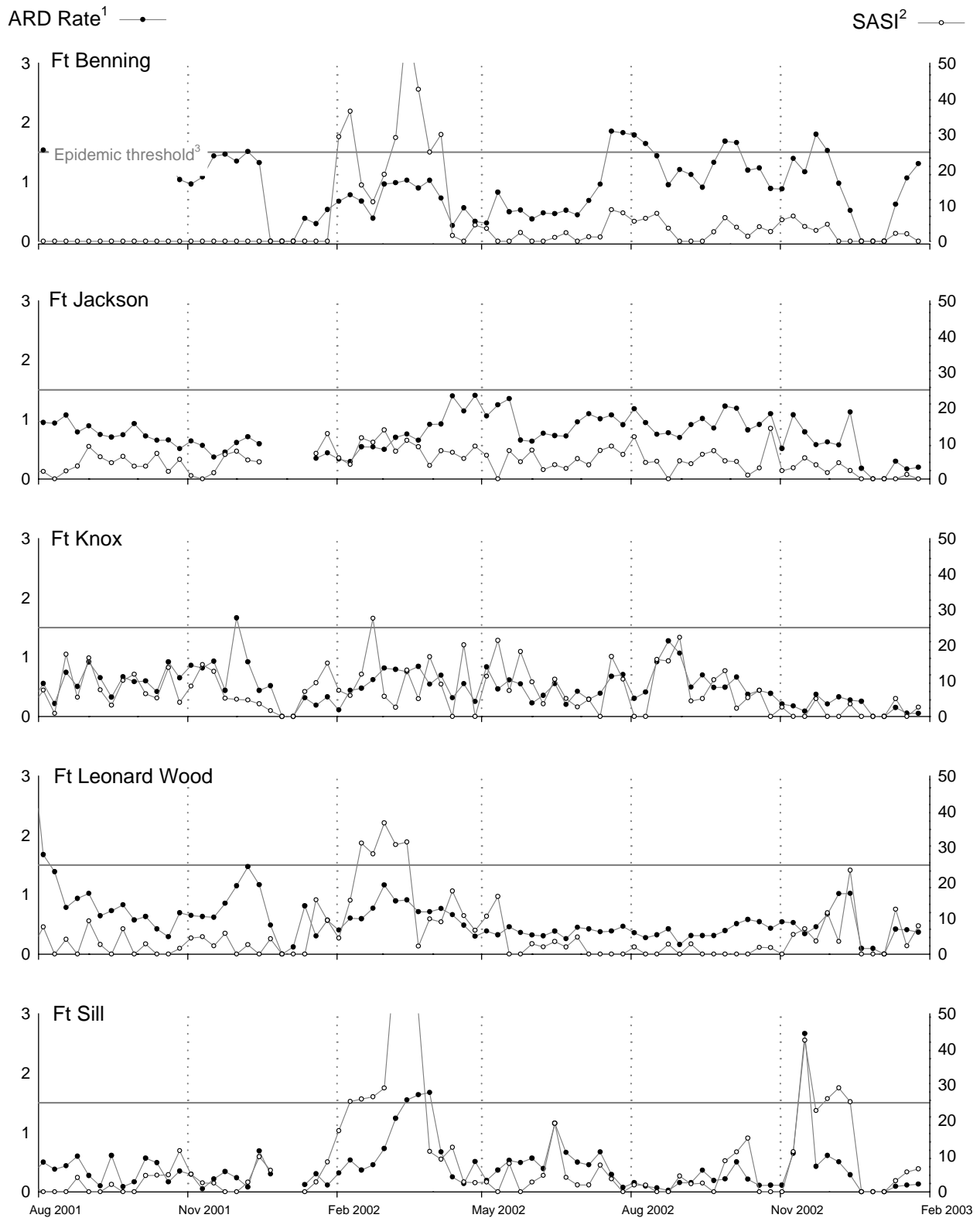
promotion programs should continue to emphasize accident and suicide prevention; and (3) accurate cause/manner of death reporting is important to document the relative importance of various manners/causes of deaths of servicemembers and to assess the effects of prevention efforts over time.

Analysis and report by Abigail Garvey Wilson, MPH, and Marsha Lopez, PhD, Analysis Group, Army Medical Surveillance Activity.

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Acute respiratory disease (ARD) and streptococcal pharyngitis (SASI), Army Basic Training Centers, by week through January 25, 2002



¹ARD rate = cases per 100 trainees per week

²SASI (Strep ARD surveillance index) = (ARD rate)x(rate of Group A beta-hemolytic strep)

³ARD rate ≥ 1.5 or SASI ≥ 25.0 for 2 consecutive weeks indicates an "epidemic"

Reportable events, US Army medical treatment facilities¹

Cumulative events for all beneficiaries, January - December 2002²

Diagnosis ³	Jan-Mar 2002	Apr-Jun 2002	Jul-Sep 2002	Oct-Dec 2002	Diagnosis ³	Jan-Mar 2002	Apr-Jun 2002	Jul-Sep 2002	Oct-Dec 2002
All reportable events	4,149	4,275	4,294	3,078	Listeriosis	.	.	.	.
Amebiasis	1	.	.	1	Lyme disease	5	39	24	6
Anthrax	.	.	.	.	Malaria, falciparum	3	2	2	3
Biological warfare agent exposure	.	.	.	.	Malaria, malariae	.	.	.	.
Botulism	.	.	.	.	Malaria, ovale	.	.	1	.
Brucellosis	.	.	.	.	Malaria, unspecified	.	1	.	1
Campylobacter	24	50	38	28	Malaria, vivax	4	9	36	3
Carbon monoxide poisoning	.	.	.	.	Measles	.	1	.	.
Chemical agent exposure	.	.	.	.	Meningococcal meningitis	4	7	2	1
Chlamydia	2,772	2,862	2,815	2,127	Meningococcal septicemia	1	1	.	.
Cholera	.	.	.	.	Mumps	.	.	.	.
Coccidioidomycosis	3	1	1	.	Pertussis	25	1	5	8
Cold weather, frostbite	26	2	.	12	Plague	.	.	.	.
Cold weather, hypothermia	.	.	.	.	Pneumococcal pneumonia	2	3	.	.
Cold weather, immersion type	4	.	.	13	Poliomyelitis	.	.	.	.
Cold weather, unspecified	1	1	.	8	Q fever	.	1	.	.
Cryptosporidiosis	.	1	1	.	Rabies, human	.	.	.	.
Cyclospora	.	.	.	.	Relapsing fever	.	.	.	.
Dengue fever	.	.	7	.	Rheumatic fever, acute	.	.	.	1
Diphtheria	.	.	.	.	Rift valley fever	.	.	.	.
E. coli O157:H7	1	4	5	.	Rocky mountain spotted fever	.	.	.	.
Ehrlichiosis	.	.	.	.	Rubella	.	.	.	.
Encephalitis	.	.	.	.	Salmonellosis	35	54	83	62
Filariasis	.	.	.	.	Schistosomiasis	.	.	.	.
Giardiasis	16	6	12	20	Shigellosis	18	15	29	64
Gonorrhea	670	738	714	519	Smallpox	.	.	.	.
H. influenzae, invasive	1	1	.	1	Streptococcus, group A, invasive	4	1	.	2
Hantavirus infection	.	.	.	.	Syphilis, congenital	1	.	.	1
Heat exhaustion	14	132	179	10	Syphilis, latent	9	9	2	5
Heat stroke	3	55	58	5	Syphilis, primary/secondary	6	16	8	7
Hemorrhagic fever	.	.	.	.	Syphilis, tertiary	.	3	3	1
Hepatitis A	2	3	3	1	Tetanus	.	.	.	.
Hepatitis B	11	9	3	1	Toxic shock syndrome	.	2	.	.
Hepatitis C	7	5	3	1	Trichinosis	.	.	1	.
Influenza	258	20	1	13	Trypanosomiasis	.	.	.	.
Lead poisoning	.	1	1	1	Tuberculosis, pulmonary	5	2	7	7
Legionellosis	.	1	3	.	Tularemia	.	.	.	1
Leishmaniasis, cutaneous	1	.	1	.	Typhoid fever	.	1	.	.
Leishmaniasis, mucocutaneous	.	.	.	.	Typhus fever	.	.	.	.
Leishmaniasis, unspecified	.	.	.	.	Urethritis, non-gonococcal	202	205	239	136
Leishmaniasis, visceral	.	.	.	.	Vaccine, adverse event	.	1	.	4
Leprosy	1	2	1	.	Varicella, active duty only	8	7	6	4
Leptospirosis	1	.	.	.	Yellow fever	.	.	.	.

1. Main and satellite clinics.

2. Events reported by January 7, 2003.

3. Tri-Service Reportable Events, Version 1.0, July 1998.

Note: Completeness and timeliness of reporting varies by facility.

Source: Army Reportable Medical Events System.

Reportable events, US Army medical treatment facilities¹

Cumulative events for all beneficiaries, calendar years 2001 and 2002²

Diagnosis ³	2001		2002		Diagnosis ³	2001		2002	
	AD ⁴	Other	AD ⁴	Other		AD ⁴	Other	AD ⁴	Other
All reportable events	10,110	3,813	11,321	4,475	Listeriosis	.	1	.	.
Amebiasis	3	1	2	.	Lyme disease	37	26	40	34
Anthrax	.	.	.	.	Malaria, falciparum	12	2	9	1
Biological warfare agent exposure	.	.	.	.	Malaria, malariae	1	.	.	.
Botulism	.	.	.	.	Malaria, ovale	1	.	1	.
Brucellosis	.	.	.	.	Malaria, unspecified	9	.	1	1
Campylobacter	70	61	81	59	Malaria, vivax	25	1	51	1
Carbon monoxide poisoning	5	.	.	.	Measles	.	2	.	1
Chemical agent exposure	.	.	.	.	Meningococcal meningitis	2	1	6	8
Chlamydia	6,235	2,751	7,473	3,103	Meningococcal septicemia	.	1	1	1
Cholera	.	.	.	.	Mumps	2	2	.	.
Coccidioidomycosis	3	.	4	1	Pertussis	.	5	1	38
Cold weather, frostbite	43	2	39	1	Plague	.	.	.	.
Cold weather, hypothermia	.	.	.	.	Pneumococcal pneumonia	8	1	5	.
Cold weather, immersion type	11	.	17	.	Poliomyelitis	.	.	.	.
Cold weather, unspecified	12	.	10	.	Q fever	.	.	1	.
Cryptosporidiosis	2	3	1	1	Rabies, human	.	.	.	.
Cyclospora	.	.	.	.	Relapsing fever	.	.	.	.
Dengue fever	1	2	7	.	Rheumatic fever, acute	.	.	1	.
Diphtheria	.	.	.	.	Rift valley fever	.	.	.	.
E. coli O157:H7	6	5	4	6	Rocky mountain spotted fever	2	.	.	.
Ehrlichiosis	6	1	.	.	Rubella	.	1	.	.
Encephalitis	2	1	.	.	Salmonellosis	78	144	62	172
Filariasis	.	.	.	.	Schistosomiasis	.	.	.	.
Giardiasis	29	48	20	34	Shigellosis	11	36	18	108
Gonorrhea	1,833	507	2,080	561	Smallpox	.	.	.	.
H. influenzae, invasive	3	3	.	3	Streptococcus, group A, invasive	2	3	4	3
Hantavirus infection	.	.	.	.	Syphilis, congenital	1	.	.	2
Heat exhaustion	324	2	333	2	Syphilis, latent	12	9	17	8
Heat stroke	133	.	121	.	Syphilis, primary/secondary	23	6	28	9
Hemorrhagic fever	1	.	.	.	Syphilis, tertiary	9	6	4	3
Hepatitis A	10	7	7	2	Tetanus	.	1	.	.
Hepatitis B	38	13	18	6	Toxic shock syndrome	1	.	1	1
Hepatitis C	31	11	11	5	Trichinosis	.	.	1	.
Influenza	33	88	30	262	Trypanosomiasis	.	.	.	.
Lead poisoning	.	6	.	3	Tuberculosis, pulmonary	11	8	12	9
Legionellosis	1	1	3	1	Tularemia	.	.	1	.
Leishmaniasis, cutaneous	.	1	2	.	Typhoid fever	.	.	.	1
Leishmaniasis, mucocutaneous	.	.	.	.	Typhus fever	.	.	.	.
Leishmaniasis, unspecified	.	.	.	.	Urethritis, non-gonococcal	982	41	758	24
Leishmaniasis, visceral	1	.	.	.	Vaccine, adverse event	4	1	5	.
Leprosy	.	.	4	.	Varicella, active duty only	39	.	25	.
Leptospirosis	2	1	1	.	Yellow fever	.	.	.	.

1. Main and satellite clinics.

2. Events reported by January 7, 2003.

3. Tri-Service Reportable Events, Version 1.0, July 1998.

4. Active duty personnel.

Note: Completeness and timeliness of reporting varies by facility.

Source: Army Reportable Medical Events System.

**Sentinel reportable events for all beneficiaries¹ at US Army medical facilities,
cumulative numbers² for calendar years through December 31, 2001 and 2002**

Reporting location	Number of reports all events ³		Food-borne								Vaccine Preventable					
			Campylo-bacter		Giardia		Salmonella		Shigella		Hepatitis A		Hepatitis B		Varicella	
	2001	2002	2001	2002	2001	2002	2001	2002	2001	2002	2001	2002	2001	2002	2001	2002
NORTH ATLANTIC																
Washington, DC Area	193	236	1	6	7	6	8	7	3	7	.	2	.	1	2	1
Aberdeen, MD	61	52	.	1	.	1	.	.	.	1	.	.	1	1	.	.
FT Belvoir, VA	201	226	11	9	10	4	10	8	.	3	1	.	.	.	.	.
FT Bragg, NC	1,635	2,234	6	11	.	.	33	45	1	62	.	.	6	1	3	.
FT Drum, NY	155	165	2	1	3	.	2	.	.	.	.	.	.	.	.	.
FT Eustis, VA	275	287	1	3	.	.	2	3	.	9	.	.	.	1	1	2
FT Knox, KY	278	232	1	5	5	4	2	4	.	.	.	.	.	.	1	.
FT Lee, VA	226	233	.	.	.	.	.	1	.	.	.	.	.	.	.	.
FT Meade, MD	70	121	.	.	.	1	1	1	.	.	.	.	.	.	.	1
West Point, NY	84	115	1	.	.	.	1	3	.	.	3	2	.	1	.	2
GREAT PLAINS																
FT Sam Houston, TX	391	322	.	.	2	.	4	2	1	.	.	.	.	.	.	.
FT Bliss, TX	259	253	3	.	7	5	1	5	6	2	.	.	2	2	1	.
FT Carson, CO	720	643	3	8	8	8	5	4	2	4	.	.	2	3	.	.
FT Hood, TX	1,995	2,290	4	4	1	.	16	17	10	12	.	.	10	.	2	.
FT Huachuca, AZ	45	68	1	.	.	.	1	1	1	.	.	.	.	.	1	.
FT Leavenworth, KS	42	55	1	.	.	3	2	.	.	1	.	1	.	.	.	.
FT Leonard Wood, MO	218	237	1	.	.	.	.	3	.	.	1	.	.	.	6	4
FT Polk, LA	256	269	.	.	.	.	1	6	.	3	.	.	.	.	.	.
FT Riley, KS	238	292	.	.	1	.	2	1	.	.	.	.	1	1	.	1
FT Sill, OK	429	337	.	1	.	.	1	.	3	5	.	.	1	.	2	.
SOUTHEAST																
FT Gordon, GA	241	245	.	.	.	.	1	.	.	3	3	1	2	1	.	.
FT Benning, GA	486	562	1	.	3	3	5	31	11	2	.	.	.	.	5	3
FT Campbell, KY	859	742	6	4	6	2	7	4	1	2	1	.	.	.	.	3
FT Jackson, SC	292	265	.	.	.	.	.	.	.	.	1	.	5	1	2	1
FT Rucker, AL	88	81	.	1	.	.	4	3	.	2	.	.	.	.	.	.
FT Stewart, GA	492	590	.	1	.	3	17	12	.	3	.	.	3	.	.	1
WESTERN																
FT Lewis, WA	740	762	5	3	3	1	8	6	.	1	.	.	2	.	.	.
FT Irwin, CA	84	68	.	.	.	.	.	.	.	.	2	.	3	1	2	.
FT Wainwright, AK	137	144	.	1	3	1	.	1	.	.	.	.	.	.	.	.
OTHER LOCATIONS																
Hawaii	931	914	41	43	13	12	27	14	7	1	1	.	1	2	.	.
Europe	1,728	2,159	42	35	5	.	56	44	1	3	3	2	12	7	9	5
Korea	74	597	.	3	.	.	5	8	.	.	1	1	.	1	2	1
Total	13,923	15,796	131	140	77	54	222	234	47	126	17	9	51	24	39	25

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

2. Events reported by January 7, 2002 and 2003.

3. Seventy conditions specified by Tri-Service Reportable Events, Version 1.0, July 2000.

Note: Completeness and timeliness of reporting vary by facility.

Source: Army Reportable Medical Events System.

(Cont'd) Sentinel reportable events for all beneficiaries¹ at US Army medical facilities, cumulative numbers² for calendar years through December 31, 2001 and 2002

Reporting location	Arthropod-borne				Sexually Transmitted								Environmental				
	Lyme Disease		Malaria		Chlamydia		Gonorrhea		Syphilis ³		Urethritis ⁴		Cold		Heat		
	2001	2002	2001	2002	2001	2002	2001	2002	2001	2002	2001	2002	2001	2002	2001	2002	
NORTH ATLANTIC																	
Washington, DC Area	3	5	1	2	88	98	24	23	9	6	.	.	.	.	.	.	2
Aberdeen, MD	.	2	.	.	40	43	12	3	.	.	2	.	3	.	.	.	.
FT Belvoir, VA	.	3	.	.	126	154	30	34	2	1	.	.	.	.	3	2	.
FT Bragg, NC	.	.	14	4	772	1,562	351	297	.	1	237	126	7	1	194	110	.
FT Drum, NY	.	.	.	2	112	109	30	29	1	.	.	.	2	10	.	14	.
FT Eustis, VA	.	1	.	.	186	212	72	51	.	1	.	.	.	.	10	3	.
FT Knox, KY	.	.	1	.	215	166	47	48	2	.	.	.	.	.	2	3	.
FT Lee, VA	.	2	.	.	173	192	53	36	.	.	.	.	.	.	.	2	.
FT Meade, MD	.	5	.	.	53	95	14	15	1	.	1	2	.	.	.	.	.
West Point, NY	48	40	.	.	25	19	3	9	.	1	1	.	.	.	1	37	.
GREAT PLAINS																	
FT Sam Houston, TX	.	.	1	.	318	246	47	48	.	.	3	.	1	.	8	2	.
FT Bliss, TX	1	.	4	.	152	155	54	27	1	1	.	.	.	.	5	1	.
FT Carson, CO	.	.	.	3	543	446	66	53	1	1	85	64	.	1	.	.	.
FT Hood, TX	.	.	4	5	1,125	1,251	379	440	4	4	360	406	.	1	62	40	.
FT Huachuca, AZ	.	.	.	.	35	55	5	10	.	.	.	.	.	.	.	2	.
FT Leavenworth, KS	.	.	.	1	27	36	9	11	.	.	.	.	.	.	.	.	.
FT Leonard Wood, MO	.	.	.	1	138	167	38	38	.	.	6	2	7	3	15	12	.
FT Polk, LA	.	.	1	1	196	179	52	68	.	5	.	.	.	.	2	1	.
FT Riley, KS	.	.	1	2	161	219	41	51	.	.	.	.	3	12	27	3	.
FT Sill, OK	1	.	1	2	232	193	103	59	.	.	67	55	1	1	12	19	.
SOUTHEAST																	
FT Gordon, GA	.	2	1	1	205	195	19	30	.	1	.	.	.	.	2	1	.
FT Benning, GA	2	.	1	1	282	286	98	135	.	1	1	.	.	.	44	94	.
FT Campbell, KY	2	1	1	3	674	528	149	161	1	1	.	.	.	1	8	24	.
FT Jackson, SC	.	.	.	.	191	216	59	42	3	1	.	.	.	2	27	2	.
FT Rucker, AL	.	.	.	1	63	51	15	18	.	.	.	.	.	.	4	5	.
FT Stewart, GA	.	3	1	1	178	358	140	150	1	2	138	11	.	.	11	42	.
WESTERN																	
FT Lewis, WA	.	.	.	3	503	534	88	85	1	2	118	112	4	.	.	.	.
FT Irwin, CA	.	.	.	.	48	53	14	12	.	.	.	.	.	.	13	1	.
FT Wainwright, AK	.	1	.	.	99	112	3	8	.	.	.	.	29	14	.	.	.
OTHER LOCATIONS																	
Hawaii	.	.	.	2	679	658	85	103	.	1	1	.	.	.	.	12	.
Europe	6	9	7	10	1,320	1,572	221	431	1	6	2	3	11	13	5	8	.
Korea	.	.	12	20	27	416	19	116	1	1	1	1	.	8	4	14	.
Total	63	74	51	65	8,986	10,576	2,340	2,641	29	37	1,023	782	68	67	459	456	

3. Primary and secondary.

4. Urethritis, non-gonococcal (NGU).

Note: Completeness and timeliness of reporting vary by facility.

Source: Army Reportable Medical Events System.

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