

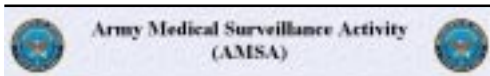


# MSSMR

## Medical Surveillance Monthly Report

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*Data in the MSSMR are provisional, based on reports and other sources of data available to the Medical Surveillance Activity. Notifiable conditions are reported by date of onset (or date of notification when date of onset is absent). Only cases submitted as confirmed are included.*

USACHPPM

*Surveillance trends***Malaria, US Army, 1998**

For centuries, malaria has been a consistent and significant threat to the health and operational effectiveness of military forces. It remains endemic throughout the tropics, its resistance to prophylactic and therapeutic drug regimens is widespread and expanding, and it continues to emerge in regions of the world that until recently were considered malaria-free. For example, in 1993, vivax malaria reemerged along the demilitarized zone (DMZ) in the Republic of Korea and since then, its incidence in civilian and military populations has steadily increased.<sup>1,2</sup> As the frequency and geographic scope of US military operations increases, soldiers will be exposed to malaria risk more often and in more locations. In turn, surveillance of malaria among US servicemembers will become increasingly important. This report summarizes the malaria experience of soldiers in the US Army during calendar year 1998.

*Case characteristics, general:* Cases of malaria by species type are reportable medical events in the US Armed Services. During 1998, 61 cases of malaria—including 9 among Korean augmentees to the US Army (KATUSAs)—were reported among active duty soldiers. All but one of the affected soldiers were male; otherwise, cases generally reflected the demographic makeup of the Army (table). Of the 53 cases of known type, all but one were vivax. Most cases (89%) were reported through the Army's notifiable medical events

reporting system; however, six cases were ascertained only through review of military hospitalization records.

*Locations of exposure:* Twenty-two case reports included specific geographic exposure information. Korea, Thailand, Honduras, Panama, Guinea, and Somalia were each implicated as likely locations of malaria acquisition. For the 39 cases without specific geographic information, military assignment histories were reviewed to ascertain high-risk exposures. For surveillance purposes, if cases were permanently assigned to Korea during the summer-fall seasons of 1997 and/or 1998—and no other high-risk exposures were indicated—then Korea was considered the location of infection. By these criteria, 79% (48/61) of all malaria cases Armywide were considered Korean in origin.

*Seasonality:* Cases not associated with service in Korea presented sporadically throughout the year. In contrast, Korean-associated cases presented with a distinct seasonal pattern: there was a steady increase in incidence from May to a peak in August, then a sharp decline in September and October (figure).

*Locations of diagnosis:* Malaria cases were diagnosed at 23 different military medical treatment facilities (MTFs) worldwide. Twenty-two cases were reported from Korea, five from Fort Bragg (North Carolina), and three each from Fort Campbell (Kentucky), Fort Lewis (Washington),

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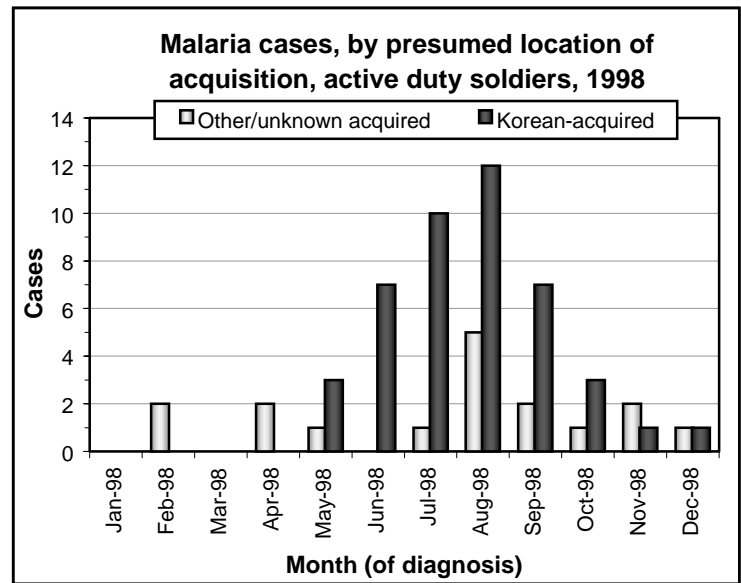
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and Tripler Army Medical Center (Hawaii). Eighteen other MTFs reported one or two malaria cases each. More than half (25/47, 53%) of all Korean-associated cases presented outside of Korea at 16 different medical treatment facilities (table).

**Editorial comment:** During 1998, the most significant malaria risk to US soldiers was associated with service in Korea. Other than Korean-related cases, malaria occurred relatively infrequently and sporadically. During the 1998 summer-fall transmission season in Korea, soldiers who were assigned to, or who trained at, specified high-risk camps near the DMZ received malaria chemoprophylaxis. In turn, there were fewer malaria cases among US soldiers in Korea in 1998 compared to 1997.<sup>2</sup> Since 40-50% of malaria infections of Korean origin delay their clinical manifestations for 6-9 months,<sup>1,2</sup> it is likely that (a) most Korean-associated cases diagnosed outside of Korea in



1998 were acquired during the 1997 transmission season; and (b) there will be fewer delayed-onset malaria cases in 1999 compared to 1998. Still, primary medical care providers throughout the military health care system should consider

*Continued on page 8*

Malaria cases, active duty soldiers, 1998			
Location of diagnosis	Korean-acquired	Other / unknown acquired	Total
Korea	22	0	22
Fort Bragg, NC	3	2	5
Fort Campbell, KY	3	0	3
Fort Lewis, WA	1	2	3
Tripler, HI	2	1	3
Walter Reed, DC	0	2	2
Fort Polk, LA	2	0	2
Fort Bliss, TX	1	1	2
Fort Stewart, GA	2	0	2
Fort Knox, KY	2	0	2
Fort Riley, KS	2	0	2
Fort Sam Houston, TX	0	2	2
Howard AFB, Panama	1	0	1
Germany	0	1	1
Fort Jackson, SC	0	1	1
Fort Carson, CO	1	0	1
Fort Drum, NY	1	0	1
Fort Leavenworth, KS	1	0	1
Fort Gordon, GA	1	0	1
Fort Sill, OK	1	0	1
Fort Benning, GA	0	1	1
Fort Hood, TX	1	0	1
Bosnia	0	1	1
	<b>47</b>	<b>14</b>	<b>61</b>

Malaria type	
<i>P. vivax</i>	52
<i>P. ovale</i>	1
Unknown	8

Gender	
Male	60
Female	1

Race/ethnicity	
White	32
Black	8
Asian	7
Other	9
Hispanic	4
Unknown	1

Age group	
< 20	1
20-24	32
25-29	8
30-34	9
35-39	8
> 39	3

**TABLE I. Selected sentinel reportable diseases, US Army medical treatment facilities\*  
January, 1999**

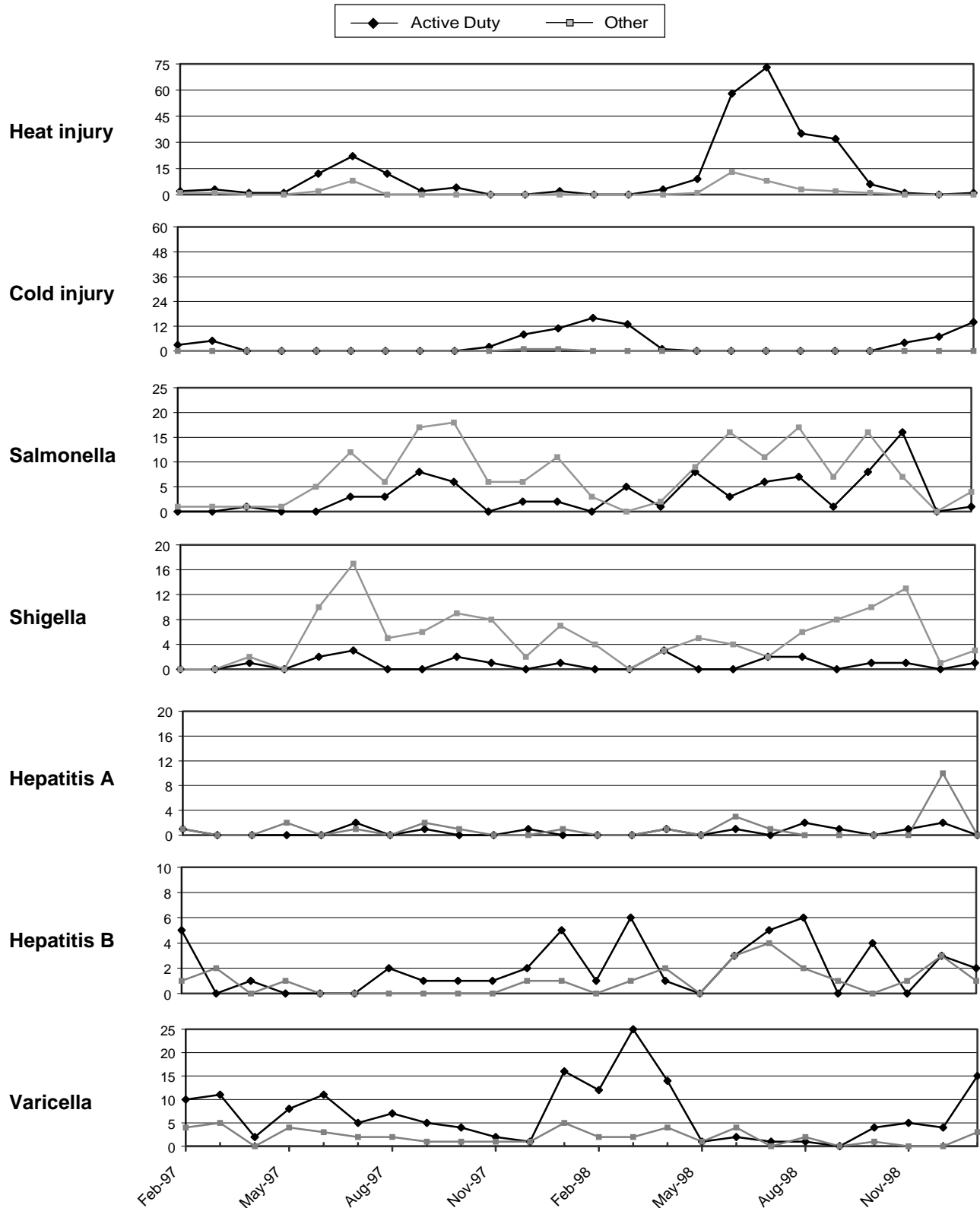
Reporting MTF/Post**	Total number of reports submitted January 1999	Environmental Injuries		Viral Hepatitis		Salmonellosis		Shigella		Varicella	
		Active Duty		A	B	Active Duty	Other	Active Duty	Other	Active Duty	Other Adult
		Heat	Cold								
		Cum. 1999	Cum. 1999	Cum. 1999	Cum. 1999	Cum. 1999	Cum. 1999	Cum. 1999	Cum. 1999	Cum. 1999	Cum. 1999
<b>NORTH ATLANTIC RMC</b>											
Walter Reed AMC	29	0	0	0	0	0	0	0	0	2	0
Aberdeen Prov. Ground, MD	4	0	0	0	0	0	0	0	0	0	0
FT Belvoir, VA	16	0	0	0	0	0	1	0	0	0	0
FT Bragg, NC	39	0	0	0	0	0	0	0	0	1	0
FT Drum, NY	10	0	0	0	0	0	0	0	0	0	1
FT Eustis, VA	18	0	0	0	0	0	0	0	0	1	0
FT Knox, KY	22	0	0	0	0	0	0	0	0	1	0
FT Lee, VA	24	0	0	0	0	0	0	0	0	0	0
FT Meade, MD	4	0	0	0	0	0	0	0	0	0	0
West Point, NY	2	0	0	0	0	0	0	0	0	0	0
<b>GREAT PLAINS RMC</b>											
Brooke AMC	24	0	0	0	1	0	0	0	2	1	1
Beaumont AMC	0	0	0	0	0	0	0	0	0	0	0
FT Carson, CO	51	0	0	0	0	0	0	0	0	0	0
FT Hood, TX	11	0	0	0	0	0	0	0	0	0	0
FT Huachuca, AZ	0	0	0	0	0	0	0	0	0	0	0
FT Leavenworth, KS	0	0	0	0	0	0	0	0	0	0	0
FT Leonard Wood, MO	23	0	1	0	1	0	0	0	0	1	1
FT Polk, LA	17	0	0	0	0	0	0	0	0	0	0
FT Riley, KS	19	0	0	0	0	0	0	0	0	0	0
FT Sill, OK	32	0	0	0	0	0	0	0	0	1	0
<b>SOUTHEAST RMC</b>											
Eisenhower AMC	27	0	0	0	0	0	0	0	0	0	0
FT Benning, GA	27	1	0	0	0	0	0	0	0	0	0
FT Campbell, KY	49	0	0	0	0	0	2	1	1	0	0
FT Jackson, SC	0	0	0	0	0	0	0	0	0	0	0
FT McClellan, AL	0	0	0	0	0	0	0	0	0	0	0
FT Rucker, AL	3	0	0	0	0	0	0	0	0	0	0
FT Stewart, GA	32	0	0	0	0	0	0	0	0	2	0
<b>WESTERN RMC</b>											
Madigan AMC	68	0	0	0	0	0	0	0	0	0	0
FT Irwin, CA	0	0	0	0	0	0	0	0	0	0	0
FT Wainwright, AK	19	0	12	0	0	0	0	0	0	0	0
<b>OTHER LOCATIONS</b>											
Tripler	64	0	0	0	0	1	0	0	0	0	0
Europe	33	0	1	0	1	0	1	0	0	5	0
Korea	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>667</b>	<b>1</b>	<b>14</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>4</b>	<b>1</b>	<b>3</b>	<b>15</b>	<b>3</b>

\* Based on date of onset.

\*\* Reports are included from main and satellite clinics. Not all sites reporting.

Date of Report: 7-Feb-99

**FIGURE I. Selected sentinel reportable diseases, US Army medical treatment facilities\*  
Cases per month, Feb 97 - Jan 99**



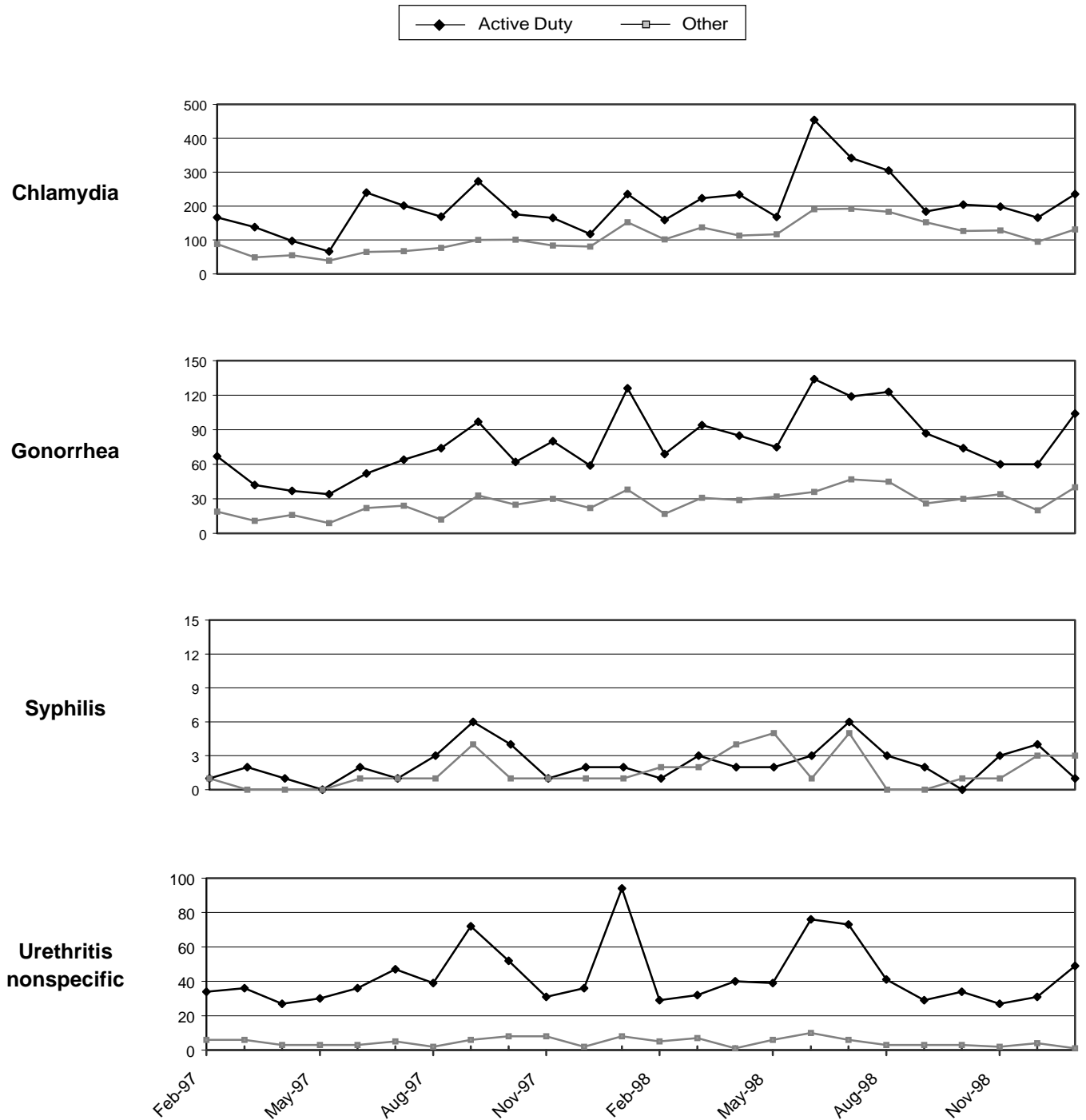
\* Reports are included from main and satellite clinics. Not all sites reporting.

**TABLE II. Reportable sexually transmitted diseases, US Army medical treatment facilities\*  
January, 1999**

Reporting MTF/Post**	Chlamydia		Urethritis non-spec.		Gonorrhea		Syphilis Prim/Sec		Syphilis Latent		Syphilis Tertiary		Syphilis Congenital	
	Cur. Month	Cum. 1999	Cur. Month	Cum. 1999	Cur. Month	Cum. 1999	Cur. Month	Cum. 1999	Cur. Month	Cum. 1999	Cur. Month	Cum. 1999	Cur. Month	Cum. 1999
<b>NORTH ATLANTIC RMC</b>														
Walter Reed AMC	13	13	0	0	2	2	0	0	0	0	1	1	0	0
Aberdeen Prov. Ground, MD	0	0	2	2	2	2	0	0	0	0	0	0	0	0
FT Belvoir, VA	10	10	0	0	3	3	0	0	0	0	0	0	0	0
FT Bragg, NC	28	28	0	0	9	9	0	0	0	0	0	0	0	0
FT Drum, NY	5	5	0	0	4	4	0	0	0	0	0	0	0	0
FT Eustis, VA	13	13	0	0	3	3	0	0	0	0	0	0	0	0
FT Knox, KY	9	9	0	0	7	7	0	0	0	0	0	0	0	0
FT Lee, VA	16	16	0	0	7	7	1	1	0	0	0	0	0	0
FT Meade, MD	3	3	0	0	0	0	0	0	0	0	0	0	0	0
West Point, NY	2	2	0	0	0	0	0	0	0	0	0	0	0	0
<b>GREAT PLAINS RMC</b>														
Brooke AMC	8	8	1	1	9	9	0	0	0	0	0	0	0	0
Beaumont AMC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FT Carson, CO	36	36	8	8	6	6	0	0	0	0	0	0	0	0
FT Hood, TX	1	1	4	4	3	3	0	0	0	0	0	0	0	0
FT Huachuca, AZ	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FT Leavenworth, KS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FT Leonard Wood, MO	12	12	1	1	5	5	1	1	0	0	0	0	0	0
FT Polk, LA	12	12	0	0	5	5	0	0	0	0	0	0	0	0
FT Riley, KS	11	11	0	0	8	8	0	0	0	0	0	0	0	0
FT Sill, OK	14	14	4	4	13	13	0	0	0	0	0	0	0	0
<b>SOUTHEAST RMC</b>														
Eisenhower AMC	25	25	0	0	1	1	0	0	0	0	0	0	0	0
FT Benning, GA	12	12	0	0	12	12	1	1	0	0	0	0	0	0
FT Campbell, KY	28	28	0	0	11	11	0	0	0	0	0	0	0	0
FT Jackson, SC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FT McClellan, AL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FT Rucker, AL	2	2	0	0	1	1	0	0	0	0	0	0	0	0
FT Stewart, GA	5	5	18	18	7	7	0	0	0	0	0	0	0	0
<b>WESTERN RMC</b>														
Madigan AMC	49	49	12	12	4	4	0	0	0	0	0	0	0	0
FT Irwin, CA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FT Wainwright, AK	5	5	0	0	2	2	0	0	0	0	0	0	0	0
<b>OTHER LOCATIONS</b>														
Tripler	29	29	0	0	14	14	0	0	0	0	0	0	0	0
Europe	18	18	0	0	6	6	0	0	0	0	0	0	0	0
Korea	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>366</b>	<b>366</b>	<b>50</b>	<b>50</b>	<b>144</b>	<b>144</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>

\* Reports are included from main and satellite clinics. Not all sites reporting.

**FIGURE II. Reportable sexually transmitted diseases, US Army medical treatment facilities\*  
Cases per month, Feb 97 - Jan 99**



\* Reports are included from main and satellite clinics. Not all sites reporting.

*Continued from page 3*

malaria a possible diagnosis in any febrile servicemember who presents with an otherwise compatible clinical syndrome, a history of service near the DMZ in Korea during the 1998 summer-fall season, and no other obvious site/source of infection. Finally, medical practitioners at all levels should increase vigilance regarding malaria surveillance. There is a DoD-wide requirement that all malaria cases be reported to local military preventive medicine/public health officials. In turn,

military public health officials should report cases, including the malaria type and high-risk exposures, to their service medical surveillance centers.

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2. Feighner BH, Pak SI, Novakoski WL, Kelsey LL, Strickman D. Reemergence of *Plasmodium vivax* malaria in the republic of Korea. *Emerg Infect Dis*, 1998, 4:2(Apr-Jun), 295-7.

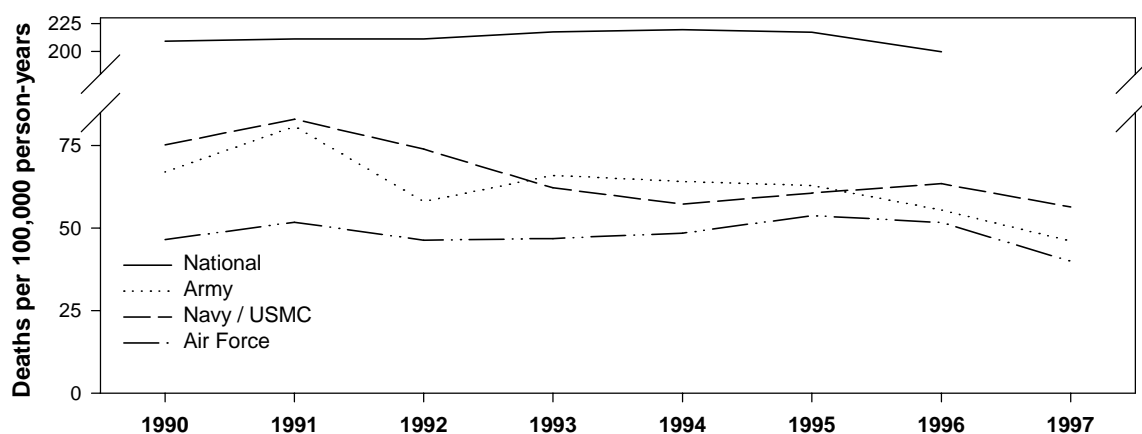
This is a corrected version. The previous version of this article inadvertently excluded data that should have been used in the summary.

## Mortality Trends Among Active Duty Military Servicemembers, 1990 - 1997

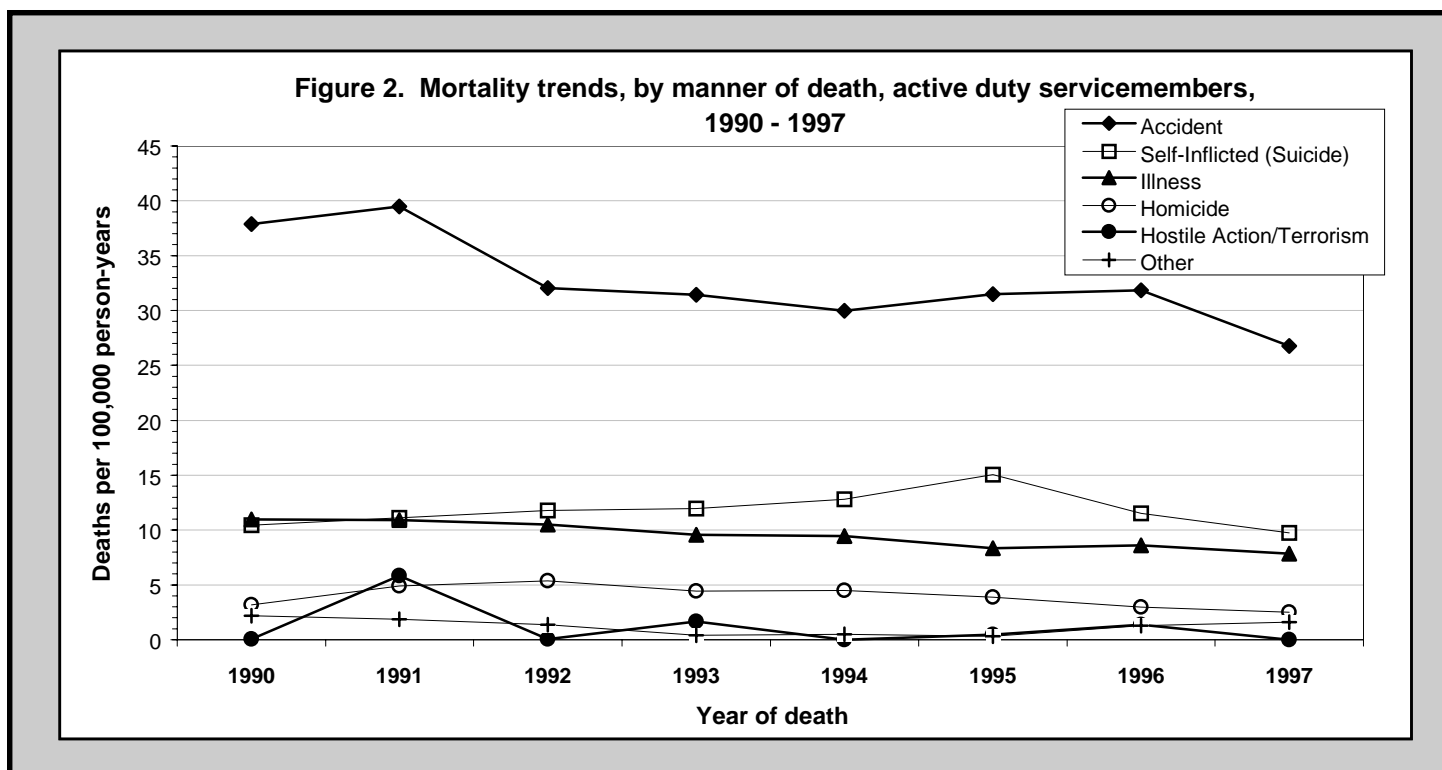
Military medical surveillance activities attempt to identify and characterize significant threats to the health, fitness, and operational effectiveness of military populations. In turn, deaths of active duty servicemembers are medical events of particular medical surveillance concern. This report summarizes the mortality experience of active duty servicemembers from 1990 through 1997.

*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 maintained by the Directorate for Information Operations and Reports, Washington Headquarters

**Figure 1. Mortality rates by year and service, active duty servicemembers, 1990 - 1997**







Services, Washington, DC. To the extent possible, each death is classified as “accident,” “self-inflicted,” “homicide,” “illness/disease,” “hostile action/terrorism,” or “other.” Periodically, casualty files are transmitted to the Army Medical Surveillance Activity (AMSA) for inclusion in the data inventory of the Defense Medical Surveillance System (DMSS). This report summarizes deaths of servicemembers who were listed on contemporaneous active duty master files provided by the Defense Manpower Data Center. Mortality trends were assessed using linear regression procedures.

**Results:** From 1990 through 1997, 8,424 servicemembers died while on active duty (cumulative mortality rate: 61.0 per 100,000 servicemembers per year). Over the period, annual mortality rates declined by approximately 25%. The lowest mortality rates were consistently among Air Force members, while the most significant changes (average annual declines of approximately 4% per year) were among soldiers, sailors, and Marines. There were relative peaks in mortality in each of the services in 1991, the year of the Persian Gulf War (figure 1).

More than half (54%) of all active duty deaths were attributable to accidents; of these, most

involved motor vehicles. More than a fourth of all deaths resulted from intentional acts (suicide: 19%, homicide: 7%, hostile action and terrorism: 2%). Illnesses (16%) and other/undetermined circumstances accounted for the remainder. Mortality rates related to accidents, illnesses, and homicides declined by an average of 3-5% per year. Suicide rates increased through 1995 and then declined (figure 2).

**Accidents:** Among both males and females, accident-related death rates declined with age. In each age group examined, accident-related death rates were two to three times higher among males than females (table).

**Suicides:** Suicide rates declined with age among males but increased with age among females. Still, in each age group examined, suicide rates were two to three times higher among males than females (table).

**Homicides:** Female servicemembers between 25 and 34 years old (but not those younger or older) were victims of homicide at a higher rate than their male counterparts. Among male servicemembers (overall and in each age stratum), suicide rates were 2-5 times higher than homicide rates. In contrast, more female servicemembers died from homicide than suicide.

**Illnesses:** In all age groups, illness-related mortality rates were higher among males than females. Among both males and females, illness-related mortality increased sharply with age. For example, illness-related mortality rates were approximately five times higher among servicemembers older than 34 compared to those younger than 25.

**Editorial comment:** Between 1990 and 1997, mortality rates among active members of the US Armed Forces declined by an average of 3.5% per year. 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—overall (figure 1), by specific causes, and in every age- and gender-defined subgroup (table). This finding is not surprising since, for example, servicemembers are selected for military service

based on their medical histories and states of health at the time of accession (“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). At least partially as a result, military and national mortality rates differed most in relation to illness-related deaths. In summary, recent mortality experience suggests that (1) programs to enhance the health and safety of military servicemembers have been effective; and (2) military safety and health promotion programs should continue to emphasize accident and suicide prevention.

*Reported by Abigail Garvey, MPH, and Samuel Washington, MPH, Army Medical Surveillance Activity.*

**Mortality rates\* by age group, gender, and selected causes, active duty servicemembers and general US population\*\*, 1990 - 1997**

		Accident		Suicide			Homicide			Illness			Overall		
		Military		National	Military		National	Military		National	Military		National	Military	National
		n	Rate	Rate	n	Rate	Rate	n	Rate	Rate	n	Rate	Rate	Rate	Rate
Age < 25	Male	2,440	51.3	58.5	649	13.6	22.0	291	6.1	35.1	237	5.0	25.2	79.1	142.9
	Female	126	18.2	20.0	27	3.9	3.8	36	5.2	6.2	25	3.6	17.7	32.3	48.2
Age 25 - 34	Male	1,430	30.2	51.9	604	12.8	24.9	125	2.6	25.7	326	6.9	96.0	55.3	201.7
	Female	79	11.8	15.2	28	4.2	5.2	43	6.4	6.9	44	6.6	47.3	30.0	75.5
Age > 34	Male	464	17.5	46.6	300	11.3	23.5	58	2.2	14.0	663	25.1	345.0	57.9	432.3
	Female	23	7.9	15.1	15	5.2	6.8	4	1.4	4.1	40	13.8	194.4	29.7	221.4
<b>Total***</b>		<b>4,562</b>	<b>33.1</b>	<b>49.0</b>	<b>1,623</b>	<b>11.8</b>	<b>21.2</b>	<b>557</b>	<b>4.0</b>	<b>24.4</b>	<b>1,335</b>	<b>9.7</b>	<b>115.1</b>	<b>61.1</b>	<b>212.3</b>

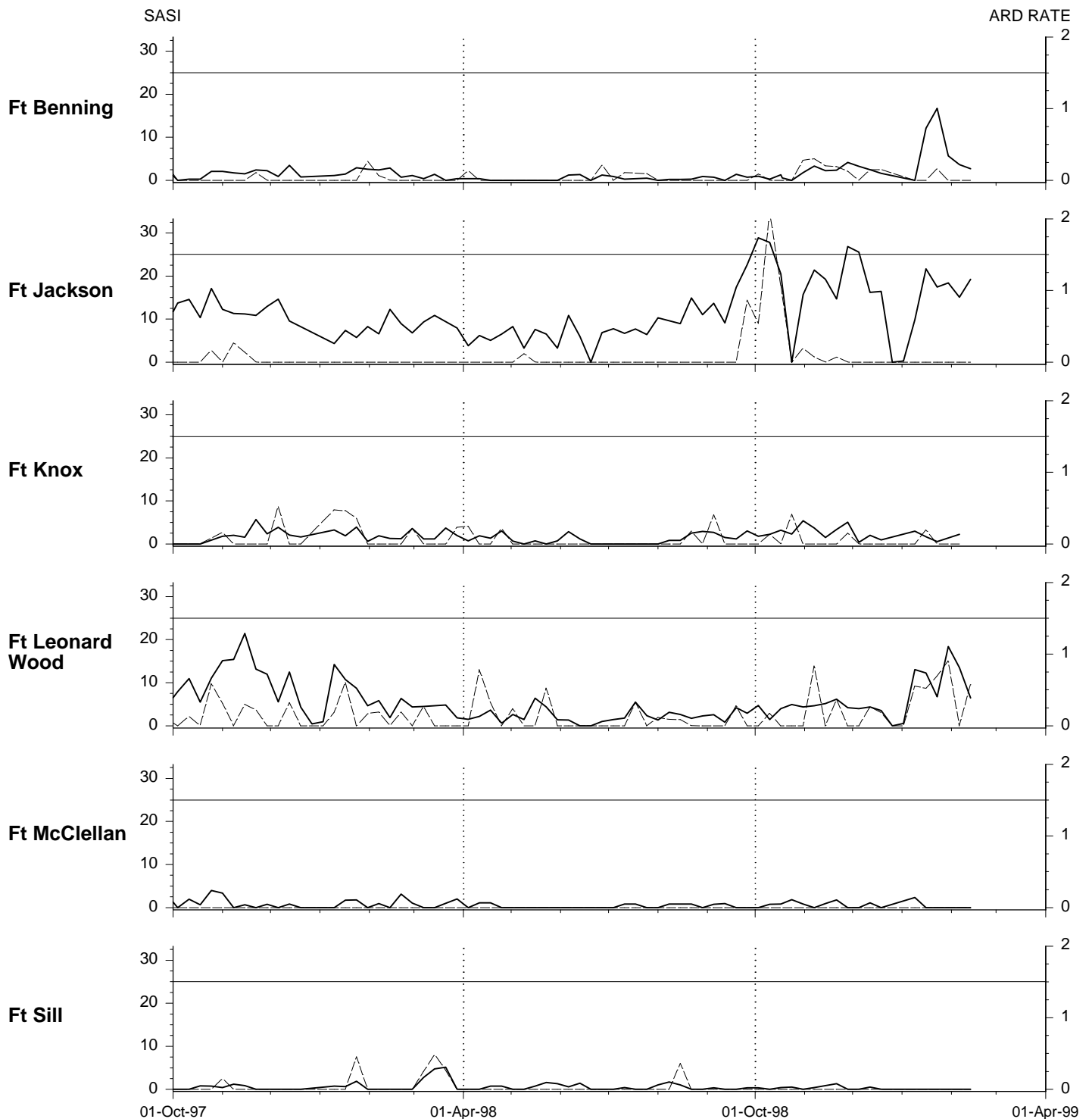
\* Rates are calculated per 100,000 person-years.

\*\* National rates are based on 1990 - 1996 mortality data, age 15 - 54, National Center for Health Statistics.

\*\*\* National total rates are age-gender adjusted to the military population.

**Figure III. Acute respiratory disease (ARD) surveillance update  
US Army initial entry training centers**

—	ARD rate = (ARD hospitalizations / # trainees) x 100	SASI ≥ 25 or ARD rate ≥ 1.5% for 2 weeks defines an ARD epidemic
- - -	SASI* = (ARD rate x strep rate**)	



\* SASI (Strep ARD Surveillance Index) is a reliable predictor of serious strep-related morbidity

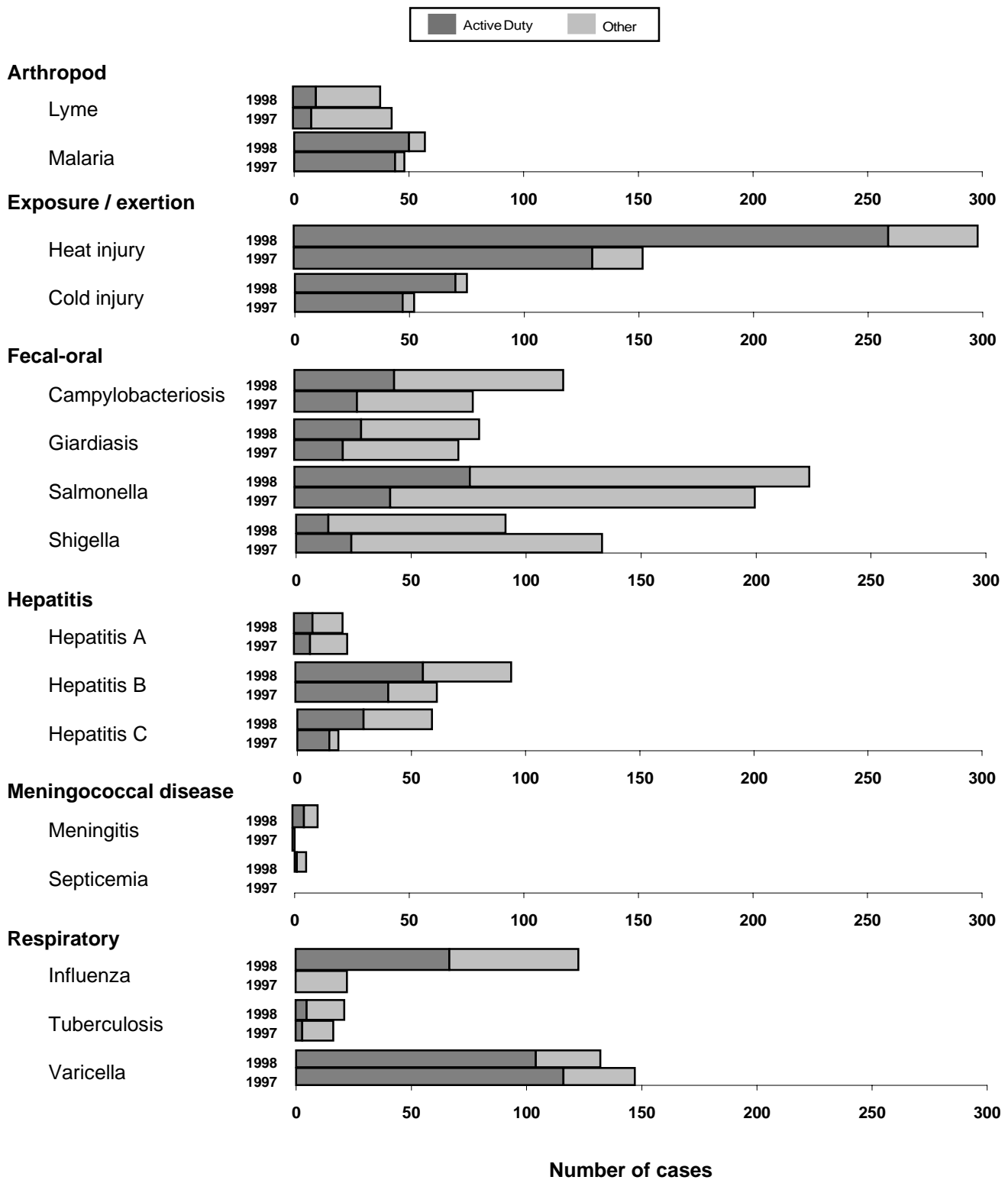
\*\* Strep rate = (Group A beta-hemolytic strep(+)/# cultures) x 100

**TABLE S1. Reportable conditions reported through Medical Surveillance System, Jan-Dec 1998\***

Diagnosis	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total	Diagnosis	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
Amebiasis	0	1	1	3	5	Listeriosis	0	0	0	0	0
Anthrax	0	0	0	0	0	Lyme disease	4	10	22	2	38
Biological warfare agent exp	0	0	0	0	0	Malaria, falciparum	0	0	1	1	2
Botulism	0	0	0	0	0	Malaria, malariae	0	0	0	0	0
Brucellosis	0	0	0	0	0	Malaria, ovale	0	2	0	0	2
Campylobacteriosis	15	31	41	29	116	Malaria, unspecified	0	1	6	1	8
Carbon monoxide poisoning	5	0	1	1	7	Malaria, vivax	2	10	24	9	45
Chemical agent exposure	0	1	0	0	1	Measles	4	2	1	1	8
Chlamydia	1705	1535	1608	1319	6167	Mening., meningitis	1	1	7	2	11
Cholera	0	1	0	0	1	Mening., septicemia	0	0	3	2	5
Coccidioidomycosis	0	3	0	2	5	Mumps (adults only)	0	0	0	0	0
CWI, frostbite	39	1	0	15	55	Pertussis	2	5	1	2	10
CWI, hypothermia	6	0	0	0	6	Plague	0	0	0	0	0
CWI, immersion type	8	0	0	1	9	Pneumococcal pneum.	3	0	1	2	6
CWI, unspecified	4	1	0	0	5	Poliomyelitis	0	0	0	0	0
Cryptosporidiosis	0	1	3	0	4	Q fever	0	0	0	0	0
Cyclospora	0	0	0	0	0	Rabies, human	0	0	0	0	0
Dengue fever	0	1	2	3	6	Relapsing fever	0	0	0	0	0
Diphtheria	0	0	0	0	0	Rheumatic fever	1	0	0	1	2
E Coli 0157:H7	0	1	1	1	3	Rift Valley Fever	0	0	0	0	0
Ehrlichiosis	0	1	1	0	2	RMSF	0	3	3	0	6
Encephalitis	0	0	0	0	0	Rubella	0	0	0	0	0
Filariasis	0	0	0	0	0	Salmonellosis	35	55	56	80	226
Giardiasis	20	14	32	14	80	Schistosomiasis	0	0	0	0	0
Gonorrhea	558	486	538	389	1971	Shigellosis	18	17	20	36	91
H. influenzae, invasive	1	0	0	0	1	Streptococcus, group A inv.	1	0	0	0	1
Hantavirus infection	0	0	0	1	1	Syphilis, congenital	0	0	1	0	1
Heat exhaustion	6	82	118	4	210	Syphilis, latent	2	13	6	12	33
Heat stroke	7	31	44	4	86	Syphilis, prim/sec	8	10	16	13	47
Hemorrhagic fever	0	0	0	0	0	Syphilis, tertiary	2	4	5	5	16
Hepatitis A, acute	6	7	4	4	21	Tetanus	1	0	0	0	1
Hepatitis B, acute	27	25	29	12	93	Toxic shock syndrome	2	1	1	0	4
Hepatitis C, acute	16	11	19	13	59	Trichinellosis	0	0	0	0	0
Influenza	117	0	2	8	127	Trypanosomiasis	0	0	0	1	1
Lead poisoning	1	1	1	1	4	Tuberculosis, pulmonary	5	6	4	7	22
Legionellosis	0	0	0	0	0	Tularemia	0	0	0	0	0
Leish, cutaneous	3	0	0	1	4	Typhoid fever	0	0	0	0	0
Leish, mucocutaneous	0	0	0	0	0	Typhus fever	0	0	0	0	0
Leish, unspecified	0	0	0	0	0	Urethritis, non-specific	252	221	181	118	772
Leish, visceral	0	0	1	0	1	Vaccine advrs event	0	4	5	4	13
Leprosy	0	0	0	0	0	Varicella, adult only	76	34	4	18	132
Leptospirosis	0	0	0	4	4	Yellow fever	0	0	0	0	0
<b>Total</b>							<b>2963</b>	<b>2634</b>	<b>2814</b>	<b>2146</b>	<b>10557</b>

\* Based on date of onset.

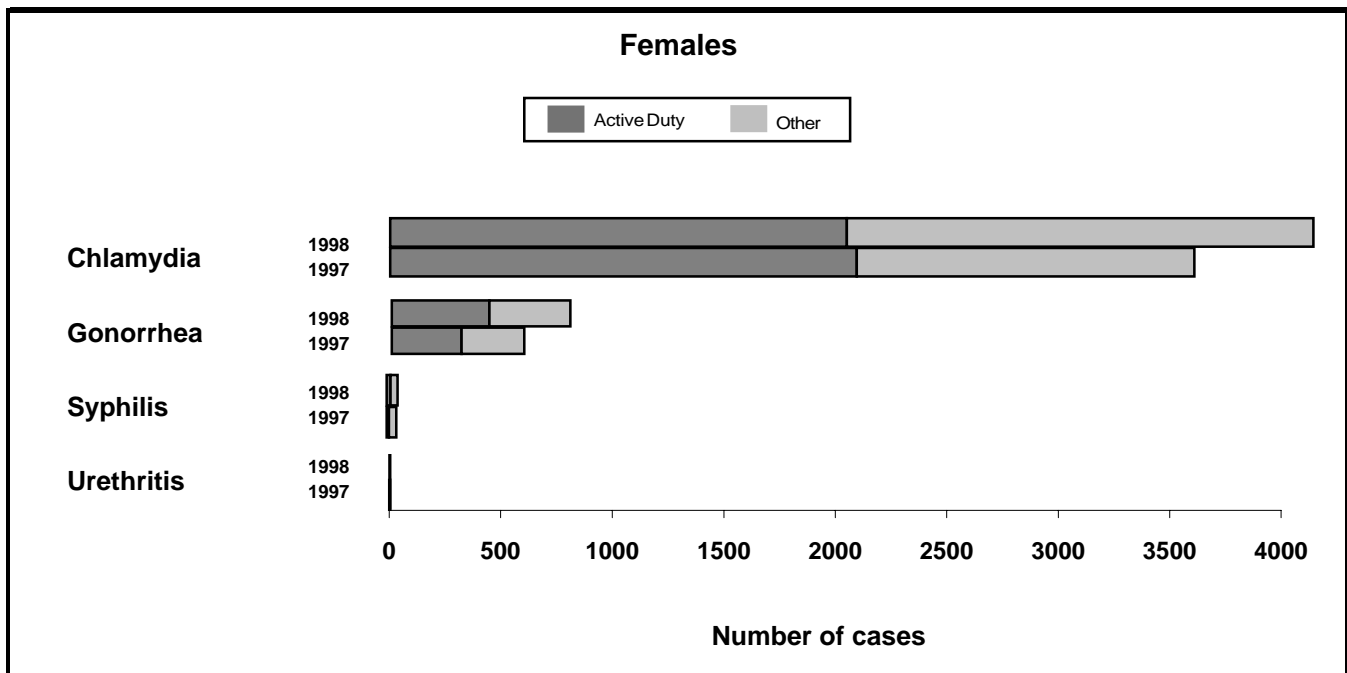
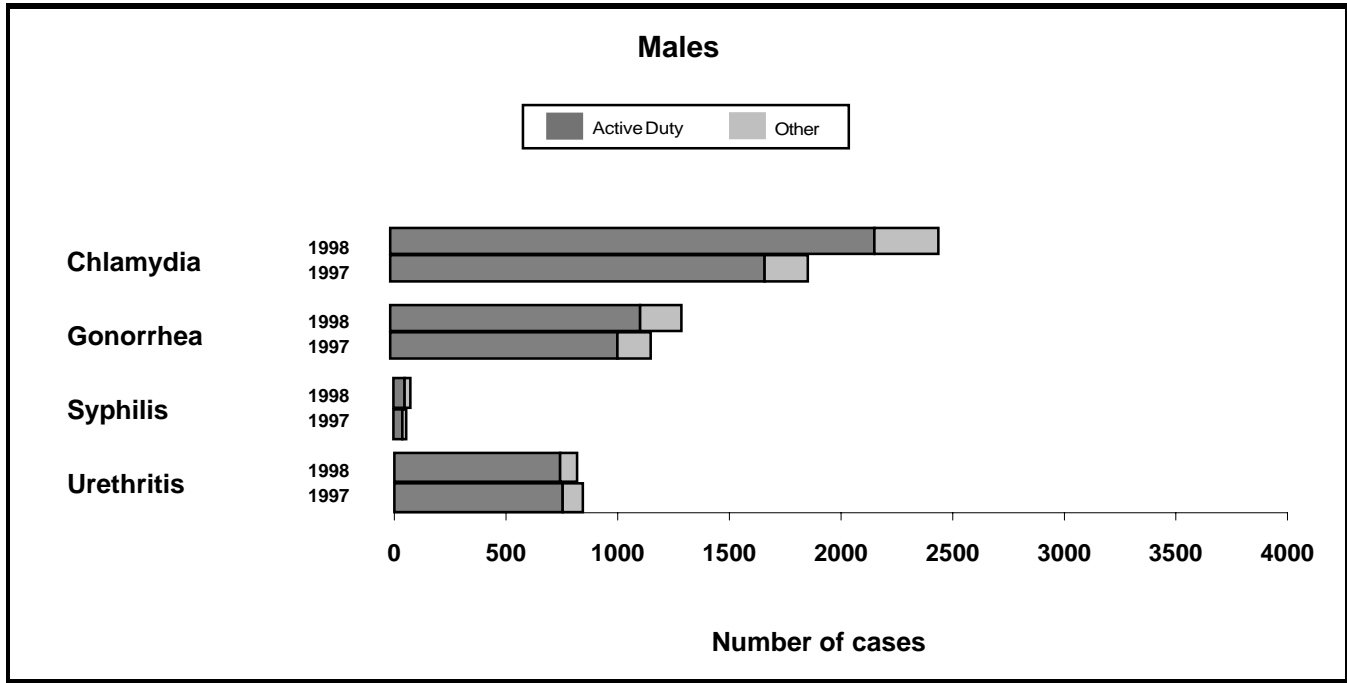
**FIGURE S1. Sentinel reportable diseases, United States Army\*  
Calendar years 1997 and 1998**



\* Based on date of onset.

\*\* Reports are included from main and satellite clinics. Not all sites reporting.

**FIGURE S2. Sentinel reportable STDs, United States Army\*  
Calendar years 1997 and 1998, by gender**



\* Based on date of onset.

\*\* Reports are included from main and satellite clinics. Not all sites reporting.

TABLE S2. Active duty force strength by MTF, United States Army, September, 1998\*

MTF/Post**	Males							Females							All
	< 20	20-24	25-29	30-34	35-39	>= 40	Total M	< 20	20-24	25-29	30-34	35-39	>= 40	Total F	
<b>NORTH ATLANTIC RMC</b>															
Walter Reed AMC	152	1310	1409	1432	1700	3000	9003	45	405	546	482	512	584	2574	11577
Aberdeen Prov. Ground, MD	380	361	249	343	354	378	2065	47	83	77	61	43	38	349	2414
FT Belvoir, VA	13	198	308	346	323	404	1592	7	88	134	87	81	67	464	2056
FT Bragg, NC	1782	11635	8561	6140	4050	2315	34483	303	1660	1224	683	436	230	4536	39019
FT Drum, NY	689	3598	2366	1415	941	466	9475	114	474	249	143	82	51	1113	10588
FT Eustis, VA	530	1439	1214	966	890	776	5815	130	459	326	175	159	102	1351	7166
FT Knox, KY	2440	2546	1487	1343	1353	815	9984	47	220	174	138	87	77	743	10727
FT Lee, VA	754	871	672	580	470	384	3731	334	350	246	165	128	82	1305	5036
FT Meade, MD	75	699	966	916	660	866	4182	41	286	315	218	174	152	1186	5368
West Point, NY	34	311	277	640	484	563	2309	5	68	69	115	80	65	402	2711
<b>GREAT PLAINS RMC</b>															
Brooke AMC	424	642	907	1005	797	937	4712	229	301	425	345	276	306	1882	6594
Wm Beaumont AMC	596	2390	1818	1299	1114	1084	8301	132	680	446	213	157	151	1779	10080
FT Carson, CO	674	4492	3341	2094	1541	837	12979	160	745	443	247	172	97	1864	14843
FT Hood, TX	2109	12982	8606	5397	3630	2203	34927	439	2373	1568	846	603	315	6144	41071
FT Huachuca, AZ	388	915	953	724	561	427	3968	116	319	218	124	125	102	1004	4972
FT Leavenworth, KS	68	237	226	570	821	571	2493	29	100	62	87	94	50	422	2915
FT Leonard Wood, MO	1966	1186	944	973	806	452	6327	867	490	272	189	96	66	1980	8307
FT Polk, LA	331	2463	1668	1287	777	380	6906	73	456	254	146	99	59	1087	7993
FT Riley, KS	631	3654	2222	1267	844	441	9059	81	475	251	140	95	50	1092	10151
FT Sill, OK	2917	4132	2586	1715	1255	793	13398	111	435	318	194	121	79	1258	14656
Panama	38	454	505	471	384	277	2129	6	63	75	36	26	13	219	2348
<b>SOUTHEAST RMC</b>															
Eisenhower AMC	898	1628	1372	1151	1197	1205	7451	248	524	453	314	336	231	2106	9557
FT Benning, GA	5343	5428	3371	2050	1366	736	18294	106	498	396	226	146	65	1437	19731
FT Campbell, KY	1025	7135	5566	3492	2294	1069	20581	184	1042	690	401	225	104	2646	23227
FT Jackson, SC	3678	1520	790	891	692	444	8015	1886	859	416	304	175	97	3737	11752
FT McClellan, AL	1076	537	447	525	498	413	3496	296	208	141	120	92	57	914	4410
FT Rucker, AL	88	705	1057	645	467	431	3393	56	208	131	57	55	25	532	3925
FT Stewart, GA	999	6072	4203	2534	1796	939	16543	177	1055	720	374	240	122	2688	19231
<b>WESTERN RMC</b>															
Madigan AMC	831	4929	3743	2451	1847	1227	15028	145	856	597	326	234	210	2368	17396
FT Irwin, CA	221	1310	924	736	532	261	3984	33	166	124	74	50	30	477	4461
FT Wainwright, AK	230	2022	1794	942	582	303	5873	41	326	255	149	111	51	933	6806
<b>OTHER LOCATIONS</b>															
Tripler AMC	457	4081	3450	2043	1480	933	12444	108	782	711	403	272	188	2464	14908
Europe	1794	15941	14233	9030	6376	4098	51472	469	3235	2466	1385	974	608	9137	60609
Korea	1732	8009	5981	4303	3366	2077	25468	444	1447	1095	674	494	291	4445	29913
Other/Unknown	1754	4980	5398	7151	5661	3883	28827	425	1113	939	783	725	400	4385	34039§
<b>Total</b>	<b>37117</b>	<b>120812</b>	<b>93614</b>	<b>68867</b>	<b>51909</b>	<b>36388</b>	<b>408707</b>	<b>7934</b>	<b>22849</b>	<b>16826</b>	<b>10424</b>	<b>7775</b>	<b>5215</b>	<b>71023</b>	<b>480557</b>

\* Based on duty zip code. Does not account for TDY.

§ Includes unknown age groups and unknown gender.

\*\* Includes any subordinate catchment areas not listed separately.

Source: Defense Manpower Data Center (DMDC)

DEPARTMENT OF THE ARMY  
U.S. Army Center for Health Promotion  
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Aberdeen Proving Ground, MD 21010-5422

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