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Update: Human Immunodeficiency Virus, Type 1 (HIV-1), Antibody Screening Among Active and Reserve Component Soldiers and Civilian Applicants for Military Service, 1985-June 2003

Since 1986, all members of the active and reserve components of the US Armed Forces have been periodically screened for antibodies to human immunodeficiency virus, type 1 (HIV-1); in addition, since October 1985, all applicants for US military service have been screened for antibodies to HIV-1 during preinduction medical examinations at Military Entrance Processing Stations (MEPS). This report summarizes prevalences and trends of new diagnoses of HIV-1 among routinely screened soldiers in active and reserve components of the US Army and among civilian applicants for military service.

Methods. For active, Reserve, and National Guard soldiers, new diagnoses of HIV-1 infections were summarized based on the earliest confirmed positive tests of individuals who were listed with identical information on relevant personnel files. For calendar-year-specific seroprevalence calculations, denominators were the numbers of soldiers in each component who were tested at least once during each calendar year. Annual HIV-1 infection prevalences among civilian applicants for service were calculated by dividing the number of applicants with first positive tests by the number of applicants tested each calendar year.

Army, active component. Between January 2002 and June 2003, 80 soldiers (78 males, 2 females) were diagnosed with HIV-1 infections during routine screening. During 2002, the overall prevalence of HIV-1 infection (0.16 per 1000 tested) was lower than in 2001 and the second lowest annual prevalence since routine testing began (table 1). Of the 2,778 active component soldiers diagnosed with HIV-1 infections since routine testing began, 311 (11.2%) remain on active duty (table 1).

Army Reserve. Between January 2002 and June 2003, 55 soldiers (49 males, 6 females) of the U.S. Army Reserve were diagnosed with HIV-1 infections during routine testing. The overall prevalence of HIV-1 among Reservists who were tested in 2002 (0.39 per 1000) was slightly lower than in 2001 (0.44 per 1000); of interest, the prevalence was slightly higher among females (0.47 per 1000) than males (0.37 per 1000) (table 2, figure 2).

Army National Guard. Between January 2002 and June 2003, 40 soldiers (36 males, 4 females) of the Army National Guard were diagnosed with HIV-1 infections during routine testing. The overall prevalence of HIV-1 among National Guard soldiers in 2002 (0.26 per 1000) was higher than in 2001 (0.21 per 1000) but consistent with the approximately 10-year trend of relative stability (table 3).

Civilian applicants for US military service. Since October 1985, 4,779 civilian applicants for military service have been diagnosed with HIV-1 infections during preinduction medical examinations. From January 2002 to June 2003, 143 applicants (121 males, 22 females) were diagnosed with HIV-1 infections. During 2002, the overall prevalence of HIV-1 among civilian applicants for service (0.27 per 1000 tested) was the lowest annual prevalence since routine testing began (table S4). Finally, in 2002, there were no striking changes in prevalences in gender or race/ethnicity-defined subgroups (figures 4, 5).

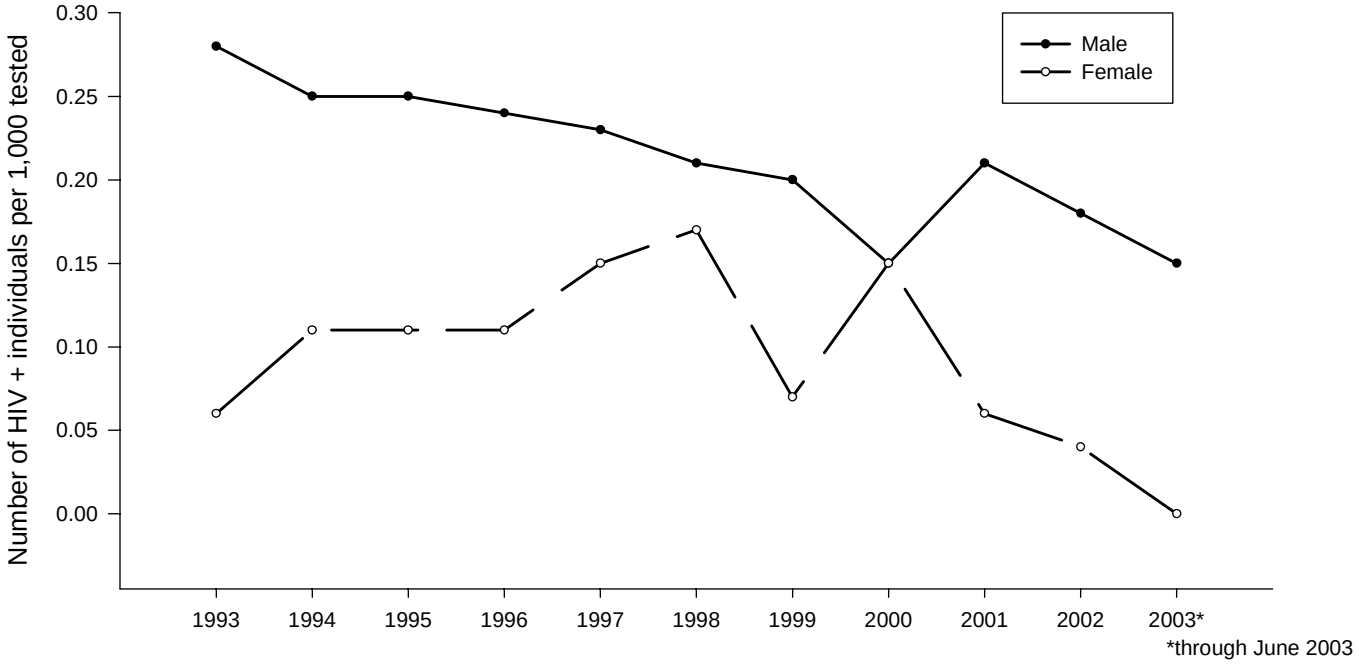
Data summaries provided by Vince P. Desborough, Army Medical Surveillance Activity.

Table 1. New diagnoses of HIV-1 infections, by gender, Army active duty, 1985/86-June 2003

Year	Total HIV-1 tests	Total persons tested	Males tested	Females tested	Total new HIV-1 positive	New HIV-1 positive males	New HIV-1 positive females	Overall rate per 1000 tested	Male rate per 1000 tested	Female rate per 1000 tested	HIV-1 (+) soldiers on active duty, by year of first (+)
1985/86	387,419	362,680	324,365	38,315	940	894	46	2.59	2.76	1.20	6
1987	456,074	346,305	310,856	35,449	394	379	15	1.14	1.22	0.42	1
1988	426,082	363,459	319,380	44,079	192	186	6	0.53	0.58	0.14	2
1989	458,962	381,335	335,053	46,282	167	161	6	0.44	0.48	0.13	3
1990	509,212	421,695	368,518	53,177	155	146	9	0.37	0.40	0.17	7
1991	456,060	381,202	333,401	47,801	132	126	6	0.35	0.38	0.13	8
1992	518,072	420,012	367,675	52,337	121	113	8	0.29	0.31	0.15	14
1993	455,691	368,512	319,847	48,665	91	88	3	0.25	0.28	0.06	10
1994	419,472	342,697	295,366	47,331	80	75	5	0.23	0.25	0.11	13
1995	463,432	339,495	292,037	47,458	78	73	5	0.23	0.25	0.11	23
1996	405,199	307,323	261,572	45,751	67	62	5	0.22	0.24	0.11	20
1997	400,978	298,912	252,437	46,475	64	57	7	0.21	0.23	0.15	22
1998	380,172	300,835	252,765	48,070	62	54	8	0.21	0.21	0.17	25
1999	356,855	288,506	242,369	46,137	52	49	3	0.18	0.20	0.07	21
2000	369,191	287,720	240,930	46,790	44	37	7	0.15	0.15	0.15	26
2001	400,003	311,371	261,529	49,842	59	56	3	0.19	0.21	0.06	37
2002	417,965	330,636	277,868	52,768	53	51	2	0.16	0.18	0.04	46
2003*	243,815	214,266	179,593	34,673	27	27	0	0.13	0.15	0.00	27
Total	**7,524,654**	**6,066,961**	**5,235,561**	**831,400**	**2,778**	**2,634**	**144**				**311**

* - current as of 30 June 2003.

Figure 1. Rates of new diagnoses of HIV-1 infections, by gender, Army active duty, 1993-2002.



*through June 2003

Table 2. New diagnoses of HIV-1 infections, by gender, Army Reserve (AR), 1985/86 - June 2003

Year	Total HIV-1 tests	Total persons tested	Males tested	Females tested	Total new HIV-1 positive	New HIV-1 positive males	New HIV-1 positive females	Overall rate per 1000 tested	Male rate per 1000 tested	Female rate per 1000 tested	HIV-1 (+) soldiers in USAR, by year of first (+)
1985/86	7,591	7,379	6,296	1,083	9	8	1	1.22	1.27	0.92	1
1987	157,226	146,699	119,857	26,842	34	32	2	0.23	0.27	0.07	1
1988	89,966	85,368	68,916	16,452	76	74	2	0.89	1.07	0.12	2
1989	167,229	153,841	123,999	29,842	75	70	5	0.49	0.56	0.17	0
1990	175,752	153,406	122,479	30,927	73	70	3	0.48	0.57	0.10	0
1991	123,204	112,095	89,415	22,680	62	60	2	0.55	0.67	0.09	0
1992	183,745	161,173	128,441	32,732	64	53	11	0.40	0.41	0.34	1
1993	146,571	130,325	104,047	26,278	41	37	4	0.31	0.36	0.15	1
1994	136,726	122,837	96,811	26,026	27	22	5	0.22	0.23	0.19	0
1995	105,438	95,664	75,387	20,277	28	22	6	0.29	0.29	0.30	2
1996	51,995	48,113	37,515	10,598	13	13	0	0.27	0.35	0.00	4
1997	44,992	41,892	31,858	10,034	14	12	2	0.33	0.38	0.20	4
1998	37,336	35,743	27,201	8,542	11	10	1	0.31	0.37	0.12	3
1999	41,411	38,393	29,128	9,265	16	12	4	0.42	0.41	0.43	5
2000	38,844	35,735	26,835	8,900	8	5	3	0.22	0.19	0.34	4
2001	54,827	49,940	37,845	12,095	22	18	4	0.44	0.48	0.33	15
2002	62,692	56,454	43,774	12,680	22	16	6	0.39	0.37	0.47	20
2003*	91,570	77,339	60,270	17,069	33	33	0	0.43	0.55	0.00	32
Total	**1,717,115**	**1,552,396**	**1,230,074**	**322,322**	**628**	**567**	**61**				**95**

* - current as of 30 June 2003.

Figure 2. Rates of new diagnoses of HIV-1 infections, by gender, Army Reserve, 1993-2003.

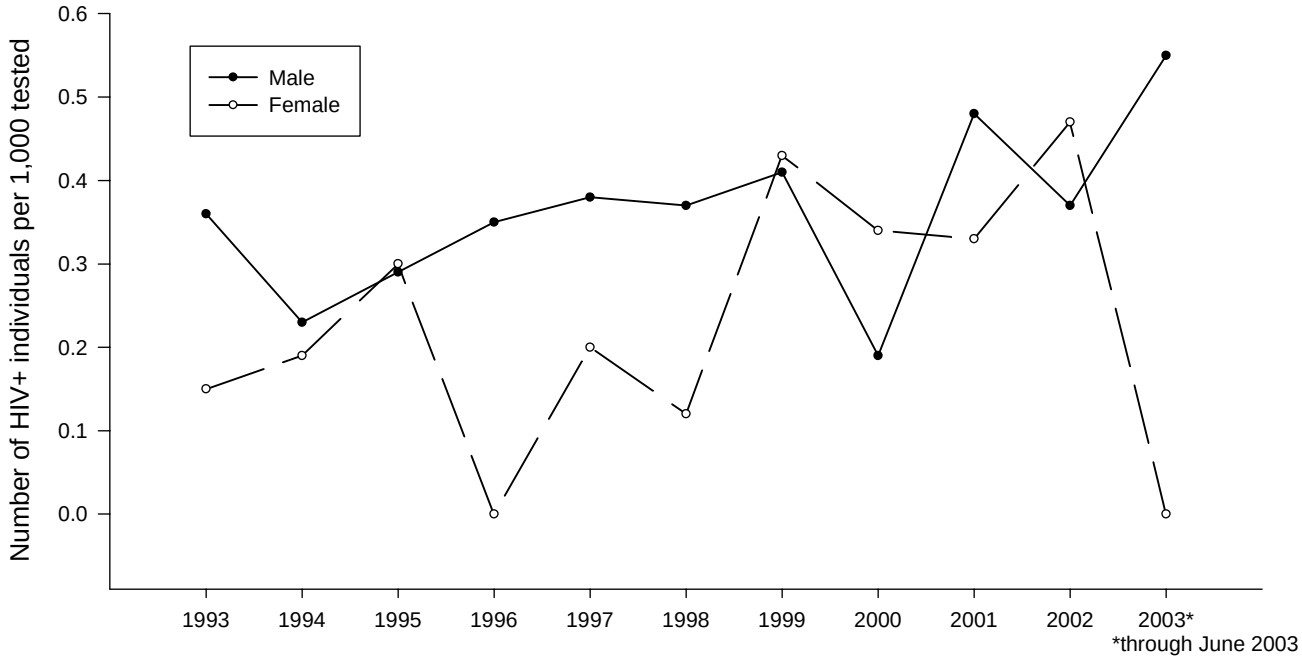
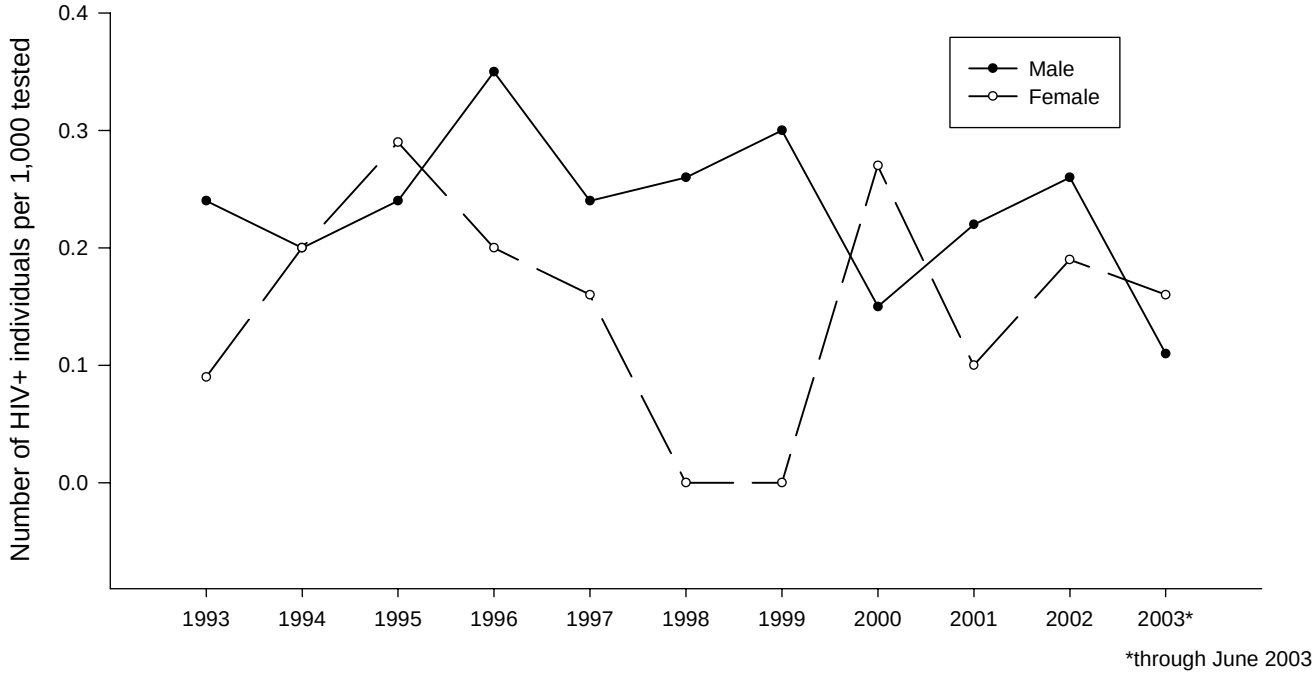


Table 3. Rates of diagnoses of HIV-1 infections, by gender, US Army National Guard, 1985/86 - June 2003

Year	Total HIV-1 tests	Total persons tested	Males tested	Females tested	Total new HIV-1 positive	New HIV-1 positive males	New HIV-1 positive females	Overall rate per 1000 tested	Male rate per 1000 tested	Female rate per 1000 tested	HIV -1 (+) soldiers in NG, by year of first (+)
1985/86	99,216	97,981	92,865	5,116	31	29	2	0.32	0.31	0.39	1
1987	234,284	225,817	214,105	11,712	37	36	1	0.16	0.17	0.09	0
1988	157,781	152,350	143,442	8,908	44	40	4	0.29	0.28	0.45	1
1989	189,220	181,491	170,808	10,683	71	69	2	0.39	0.40	0.19	2
1990	230,175	213,520	198,433	15,087	65	63	2	0.30	0.32	0.13	0
1991	191,011	178,348	166,597	11,751	57	53	4	0.32	0.32	0.34	1
1992	252,427	236,743	219,367	17,376	57	55	2	0.24	0.25	0.12	1
1993	167,723	158,701	146,996	11,705	36	35	1	0.23	0.24	0.09	1
1994	199,128	186,330	171,659	14,671	38	35	3	0.20	0.20	0.20	4
1995	146,885	140,184	129,848	10,336	34	31	3	0.24	0.24	0.29	6
1996	62,028	58,892	54,013	4,879	20	19	1	0.34	0.35	0.20	0
1997	71,027	67,789	61,413	6,376	16	15	1	0.24	0.24	0.16	4
1998	78,432	75,195	68,160	7,035	18	18	0	0.24	0.26	0.00	4
1999	86,058	81,223	73,422	7,801	22	22	0	0.27	0.30	0.00	6
2000	76,147	72,377	64,879	7,498	12	10	2	0.17	0.15	0.27	6
2001	103,331	95,221	85,522	9,699	20	19	1	0.21	0.22	0.10	8
2002	115,935	105,819	95,196	10,623	27	25	2	0.26	0.26	0.19	21
2003*	127,862	111,751	99,567	12,184	13	11	2	0.12	0.11	0.16	12
Total	**2,588,670**	**2,439,732**	**2,256,292**	**183,440**	**618**	**585**	**33**				**78**

* - current as of 30 June 2003.

Figure 3. Rates of new diagnoses of HIV-1 infections, by gender, Army National Guard, 1993-2003.



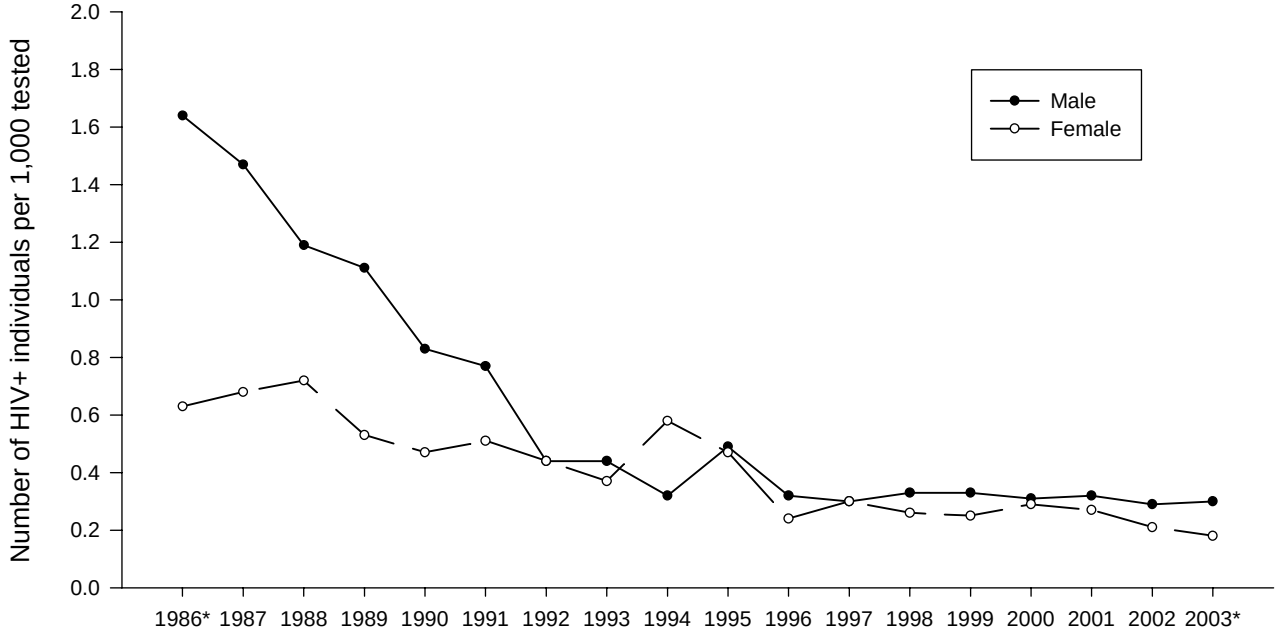
*through June 2003

Table 4. Rates of new diagnoses of HIV-1 infections, by gender, civilian applicants for US military service, 1985/86 - June 2003

Year	Total HIV-1 tests	Total persons tested	Males tested	Females tested	Total new HIV-1 positive	New HIV-1 positive males	New HIV-1 positive females	Overall rate per 1000 tested	Male rate per 1000 tested	Female rate per 1000 tested
1985/86	1,064,618	788,059	679,254	108,805	1,180	1,111	69	1.50	1.64	0.63
1987	918,908	550,032	473,786	76,246	747	695	52	1.36	1.47	0.68
1988	943,854	499,988	423,597	76,391	558	503	55	1.12	1.19	0.72
1989	633,652	497,676	419,070	78,606	507	465	42	1.02	1.11	0.53
1990	461,267	404,187	340,207	63,980	311	281	30	0.77	0.83	0.47
1991	434,816	376,179	319,341	56,838	274	245	29	0.73	0.77	0.51
1992	387,065	334,300	273,377	60,923	148	121	27	0.44	0.44	0.44
1993	363,299	307,744	250,414	57,330	132	111	21	0.43	0.44	0.37
1994	331,806	276,945	219,993	56,952	103	70	33	0.37	0.32	0.58
1995	287,566	217,222	172,206	45,016	105	84	21	0.48	0.49	0.47
1996	354,861	295,346	231,527	63,819	88	73	15	0.30	0.32	0.24
1997	355,611	290,351	229,649	60,702	88	70	18	0.30	0.30	0.30
1998	339,612	286,423	224,429	61,994	91	75	16	0.32	0.33	0.26
1999	366,192	308,948	241,992	66,956	96	79	17	0.31	0.33	0.25
2000	388,985	330,320	257,537	72,783	100	79	21	0.30	0.31	0.29
2001	413,133	345,239	272,010	73,229	108	88	20	0.31	0.32	0.27
2002	415,047	355,593	279,010	76,583	96	80	16	0.27	0.29	0.21
2003*	211,502	167,943	135,371	32,572	47	41	6	0.28	0.30	0.18
Total	**8,671,794**	**6,632,495**	**5,442,770**	**1,189,725**	**4,779**	**4,271**	**508**			

* - Data through 30 June 2003.

Figure 4. Rates of new diagnoses of HIV-infections, by gender, civilian applicants, 1985/86-2003.



**through June 2003

Table 5. Rates of new diagnoses of HIV-1 infections, by race/ethnicity, civilian applicants, 1985/86 - June 2003

Year	Total HIV-1 tests	Total persons tested	White non-hispanic persons tested	Black non-hispanic persons tested	Other/ Hispanic persons tested	Total HIV-1 (+)	White non-hispanics HIV-1 (+)	Black non-hispanic HIV-1 (+)	Hispanic/ others HIV-1 (+)	Overall rate of HIV-1 (+) per 1000 tested	White non-hispanic rate per 1000 tested	Black non-hispanic rate per 1000 tested	Hispanic/ others rate per 1000 tested
1985/86	1,064,618	788,059	604,002	144,837	39,220	1,180	506	590	84	1.50	0.84	4.07	2.14
1987	918,908	550,032	414,869	106,196	28,967	747	307	400	40	1.36	0.74	3.77	1.38
1988	943,854	499,988	370,576	101,272	28,140	558	187	336	35	1.12	0.50	3.32	1.24
1989	633,652	497,676	363,161	104,893	29,622	507	156	322	29	1.02	0.43	3.07	0.98
1990	461,267	404,187	302,576	75,735	25,876	311	113	173	25	0.77	0.37	2.28	0.97
1991	434,816	376,179	297,864	55,337	22,978	274	98	147	29	0.73	0.33	2.66	1.26
1992	387,065	334,300	257,684	55,301	21,315	148	48	92	8	0.44	0.19	1.66	0.38
1993	363,299	307,744	236,686	51,138	19,920	132	49	78	5	0.43	0.21	1.53	0.25
1994	331,806	276,945	205,010	51,217	20,718	103	23	76	4	0.37	0.11	1.48	0.19
1995	287,566	217,222	157,916	40,062	19,244	105	30	66	9	0.48	0.19	1.65	0.47
1996	354,861	295,346	210,000	56,679	28,667	88	21	63	4	0.30	0.10	1.11	0.14
1997	355,611	290,351	203,465	56,566	30,320	88	26	59	3	0.30	0.13	1.04	0.10
1998	339,612	286,423	201,260	54,517	30,646	91	20	62	9	0.32	0.10	1.14	0.29
1999	366,192	308,948	217,615	58,893	32,440	96	20	68	8	0.31	0.09	1.15	0.25
2000	388,985	330,320	235,259	63,849	31,212	100	13	82	5	0.30	0.06	1.28	0.16
2001	413,133	345,239	255,356	59,809	30,074	108	25	72	11	0.31	0.10	1.20	0.37
2002	415,047	355,593	268,341	57,291	29,961	96	27	61	8	0.27	0.10	1.06	0.27
2003*	211,502	167,943	123,350	25,445	19,148	47	17	28	2	0.28	0.14	1.10	0.10
Total	**8,671,794**	**6,632,495**	**4,924,990**	**1,219,037**	**488,468**	**4,779**	**1,686**	**2,775**	**318**				

***** - Data shown is through 30 June 2003.

Figure 5. Rates of new diagnoses of HIV-1 infections, by race/ethnicity, civilian applicants, 1985/86-June 2003.

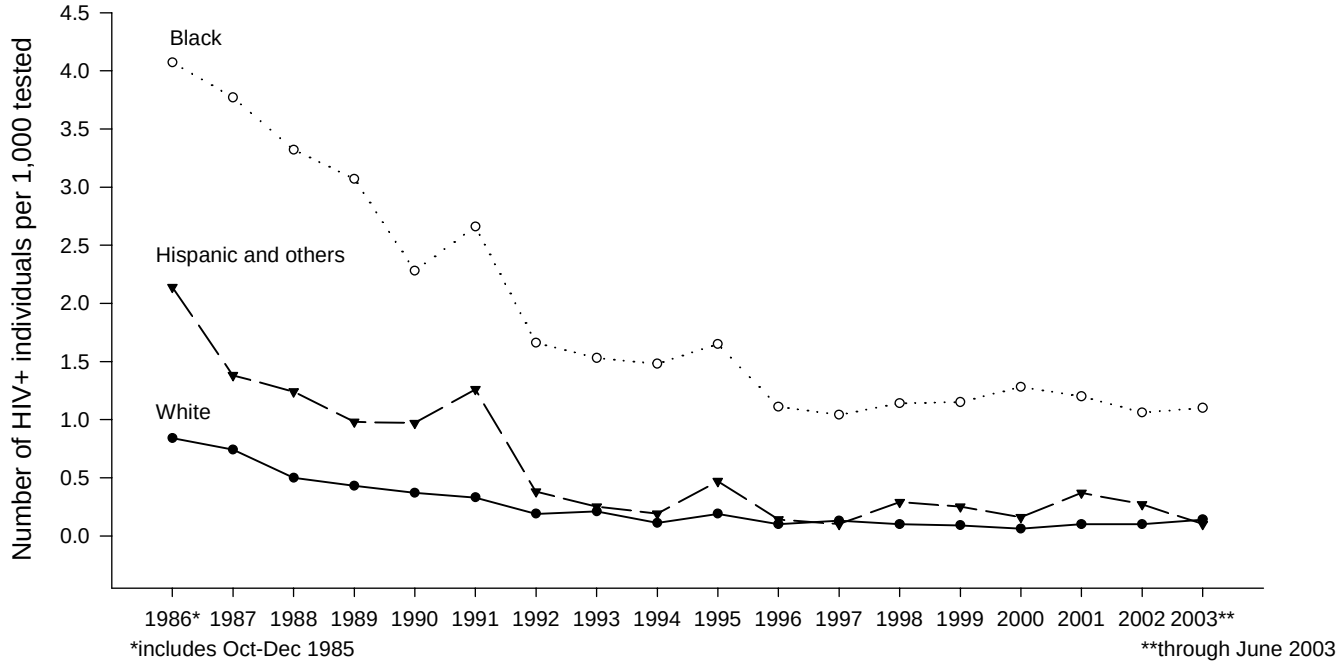


Table 6. HIV-1 tests, by indication, US Army, Active, Reserve, and National Guard, CY 2002

Test indication	Active	Reserve	National Guard	Total
Clinical / STD	32,699	1,390	2,600	36,689
Force testing	301,037	23,629	44,405	369,071
Physical examination	68,169	37,291	64,321	169,781
Other/unknown	16,155	503	5,201	21,859
Total	417,965	62,692	115,935	596,592
Total persons tested	330,636	56,454	105,819	492,909
Number positive	53	22	27	102
Prevalence, HIV-1(+) per 1000 tested	0.16	0.39	0.26	0.21

Completeness and Timeliness of Reporting of Hospitalized Notifiable Cases, Active Duty Servicemembers, US Army Medical Treatment Facilities, 1995–2002

The US Army began automated reporting of notifiable medical conditions in 1994. The capability enabled real-time surveillance across Army installations of diseases/conditions with public health and/or military operational importance[1]. Approximately four years later, the Army Surgeon General directed that Army medical activities report all occurrences of conditions specified in the tri-service consensus list of reportable medical events[2,3]. Subsequently, the Assistant Secretary of Defense for Health Affairs directed that the tri-service consensus list of reportable events be used to guide notifiable events surveillance and reporting of all the Services[4]. This report is the twelfth semi-annual assessment of the completeness and timeliness of reporting of hospitalizations of active duty servicemembers in Army medical treatment facilities for notifiable medical events.

All reports to the Army's Reportable Medical Events System (RMES) are incorporated in the Defense Medical Surveillance System (DMSS)[3,4]. Completeness of reporting is estimated by matching hospitalizations for notifiable conditions with confirmed reports to the US Army's Reportable Medical Events System (RMES). Reportable hospitalizations are identified based on ICD-9-CM coded discharge diagnoses. Timeliness of reporting is measured as the number of days between the date of hospital discharge and the date of receipt of the matching confirmed report in the DMSS.

Completeness of reporting, hospitalizations overall. For 2002, there were 292 hospitalizations of active duty service members at Army medical treatment facilities for conditions considered reportable. Of those, 160 (55%) were reported through RMES. The completeness of reporting overall has been remarkably stable since 1998 (figure 1).

Completeness of reporting, by diagnosis. As in previous years, the reportable conditions that resulted in the most hospitalizations in 2002 were heat injuries (n=140), malaria (n=34), pneumococcal pneumonia (n=24), and varicella (n=23). Completeness of reporting of these conditions were 66%, 100%, 0%, and 35%, respectively (table 1).

Completeness of reporting, by location. There continued to be significant variability in the number and completeness of reporting of reportable hospitalizations across locations. In 2002, 26 reporting sites had reportable hospitalized cases; and of these, 14 (53%) reported at least half of their reportable cases and eight (28%) reported none (of 5 or fewer reportable cases each).

Timeliness of reporting of hospitalized cases. Of all reported hospitalized cases in 2002, approximately one-third (30.0%) were reported within a week of the date of discharge, and slightly more than half (54.1%) were reported within one month. In general, the timeliness of reporting in 2002 was worse than in any prior year of automated notifiable case reporting (figure 2).

Editorial comment: The results of this analysis suggest that, in general, the completeness of reporting is stable, but the timing of reporting is more delayed. Over the past six years, the Army Medical Surveillance Activity has periodically compared reportable cases of notifiable conditions based on hospital discharge diagnoses with cases reported through the RMES. This method may underestimate actual reporting completeness because some ICD-9-CM codes are not specific to the reportable condition (i.e., they may include clinical states that are not reportable); and diagnoses made in hospital settings may not be based on the same criteria as those required for confirmed reportable cases. Nonetheless, monitoring of compliance with reporting requirements can provide meaningful epidemiologic information for evaluation, planning, and disease trending[5].

Analysis and report by Barbara E. Nagaraj, MPH, Analysis Group, Army Medical Surveillance Activity.

References
1. Memorandum: Office of the Surgeon General. SGPS –PSP (40-5). Subject: Implementation of new medical surveillance system, April 1994.
2. Memorandum: HQ, US Army Medical Command, June 17, 1998. Subject: Tri-service reportable events list.
3. Tri-service reportable events: guidelines and case definitions, version 1.0, July 1998.
4. Memorandum: Office of the Assistant Secretary of Defense (Health Affairs). November 6, 1998. Subject: Tri-service reportable events document.
5. Headquarters, U.S. Army Medical Command MCHO-CL-W (40) Tri-service Reportable Events List.

Table 1. Completeness* of reporting of hospitalized** active duty cases through the Reportable Medical Events System, by disease, US Army, 2000 - 2002***

	2000			2001			2002		
	Hospitalized	RMES		Hospitalized	RMES		Hospitalized	RMES	
Reportable Event**	cases	reported	%	cases	reported	%	cases	reported	%
Amebiasis	2	1	50	2	1	50	0	0	-
Campylobacter	1	1	100	2	1	50	2	2	100
Carbon monoxide poisoning	0	0	-	5	2	40	2	0	0
Coccidioidomycosis	7	2	29	4	2	50	4	2	50
Cold injury	7	3	43	3	2	67	6	1	17
Cryptosporidiosis	0	0	-	1	0	0	0	0	-
Cyclospora	0	0	-	1	0	0	0	0	-
Dengue fever	0	0	-	3	0	0	1	0	0
Ehrlichiosis	3	0	0	0	0	-	0	0	-
Filariasis	1	1	100	0	0	-	0	0	-
Giardiasis	0	0	-	2	2	100	0	0	-
Gonorrhea	8	2	25	6	4	67	9	5	56
Heat injury	139	86	62	172	110	64	140	92	66
Hemorrhagic fever	0	0	-	1	0	0	0	0	-
Hepatitis A	4	0	0	1	0	0	2	0	0
Hepatitis B	6	3	50	2	0	0	6	2	33
Hepatitis C	1	0	0	0	0	-	1	0	0
Influenza	8	0	0	12	0	0	6	0	0
Legionellosis	3	0	0	2	0	0	2	1	50
Leishmaniasis	0	0	-	1	1	100	1	0	0
Leprosy	0	0	-	0	0	-	2	2	100
Leptospirosis	1	1	100	2	1	50	3	3	100
Lyme disease	4	1	25	3	0	0	5	1	20
Malaria	32	29	91	36	27	75	34	34	100
Meningococcal disease	5	2	40	1	0	0	4	4	100
Mumps	0	0	-	2	0	0	0	0	-
Pneumococcal pneumonia	20	1	5	28	2	7	24	0	0
Rheumatic fever, acute	0	0	-	1	0	0	0	0	-
Rocky Mountain spotted fever	2	2	100	0	0	-	0	0	-
Salmonellosis	4	4	100	6	3	50	5	1	20
Schistosomiasis	1	0	0	1	0	0	0	0	-
Shigellosis	0	0	-	1	0	0	1	0	0
Syphillis	0	0	-	1	0	0	1	1	100
Toxic shock syndrome	1	0	0	1	0	0	2	0	0
Tuberculosis, pulmonary	6	2	33	13	4	31	12	3	25
Typhoid fever	0	0	-	3	1	33	0	0	-
Varicella, active duty only	59	34	58	23	16	70	17	6	35
Total	325	175	54	342	179	52	292	160	55

*Completeness is the percent of hospitalized reported cases that were reported through the Reportable Medical Events System (RMES).

**Includes fixed military facilities and outsourced hospitalizations.

***Reportable diseases and conditions with no hospitalizations from 2000 through 2002 were excluded from this table.

Figure 1. Completeness of reporting of hospitalized cases of notifiable conditions, active duty servicemembers, US Army medical treatment facilities, 1998-2002.

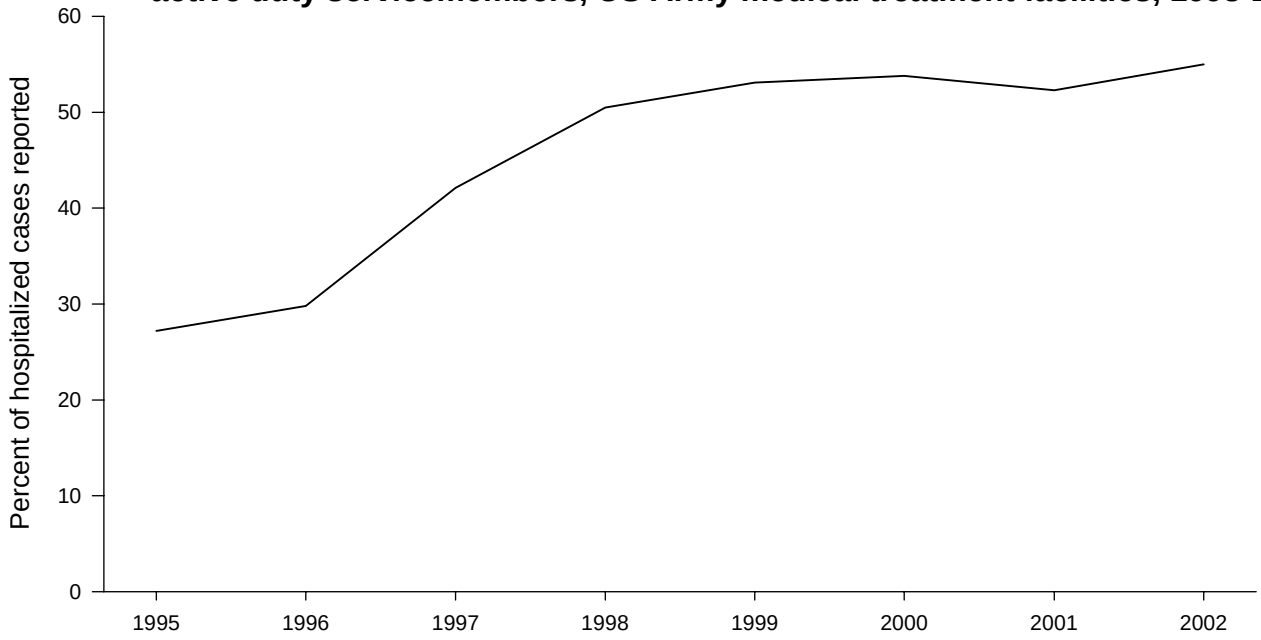


Figure 2. Timeliness of reporting of hospitalized cases of notifiable conditions through the Reportable Medical Events System, US Army, 1995-2002.

Table 2. Completeness*of reporting of hospitalized active duty cases, by medical treatment facility, US Army, 2000 - 2002

	2000			2001			2002		
	Hospitalized	RMES		Hospitalized	RMES		Hospitalized	RMES	
Location**	cases	reported	%	cases	reported	%	cases	reported	%
A	16	12	75	16	14	88	17	16	94
B	5	2	40	6	3	50	2	2	100
C	4	2	50	0	0	-	1	1	100
D	2	1	50	7	3	43	9	7	78
E	15	8	53	6	3	50	16	12	75
F	20	11	55	19	10	53	25	17	68
G	11	5	45	5	1	20	3	2	67
H	13	10	77	15	9	60	11	7	64
I	10	4	40	9	4	44	12	7	58
J	48	41	85	76	68	89	43	25	58
K	16	10	63	15	9	60	19	11	58
L	13	6	46	4	2	50	9	5	56
M	53	27	51	67	30	45	50	26	52
N	26	11	42	38	11	29	29	15	52
O	6	4	67	3	0	0	3	1	33
P	17	2	12	5	1	20	10	3	30
Q	11	2	18	11	1	9	9	2	22
R	11	4	36	5	2	40	6	1	17
S	1	1	100	0	0	-	2	0	0
T	4	2	50	9	2	22	5	0	0
U	3	2	67	13	4	31	3	0	0
V	0	0	-	0	0	-	1	0	0
W	8	4	50	9	1	11	2	0	0
X	4	3	75	2	1	50	2	0	0
Y	5	1	20	1	0	0	2	0	0
Z	0	0	-	0	0	-	1	0	0
AA	1	0	0	0	0	-	0	0	-
BB	1	0	0	0	0	-	0	0	-
CC	1	0	0	1	0	0	0	0	-
Total	309	163	53	326	165	51	292	160	55

*Completeness is the percent of hospitalized reported cases that were reported through the Reportable Medical Events System (RMES).

**Locations with no reportable hospitalizations from 2000 through 2002 were excluded from this table.

Completeness of Reporting of Hospitalized Notifiable Conditions Among Active Duty Servicemembers, US Naval Medical Treatment Facilities, 1998–2002

The US Navy began automated reporting of cases of notifiable medical conditions in 1998 as specified in the tri-service consensus list[1]. Regional Navy Environmental and Preventive Medicine Units (NEPMU) track and report notifiable cases to the Navy Environmental Health Center (NEHC); in turn, NEHC transmits case reports to the Army Medical Surveillance Activity for integration into the Defense Medical Surveillance System (DMSS)[2,3]. The overall process is referred to as the Navy Disease Reporting System (NDRS). This report summarizes the completeness of reporting of hospitalized cases of notifiable conditions among active duty service members at Navy medical treatment facilities (NMTF) from 1998 to 2002.

Hospitalized cases of notifiable conditions were identified using ICD-9-CM coded discharge diagnoses. To assess the completeness of reporting, presumably reportable hospitalized cases were compared with confirmed reports to the Navy Disease Reporting System (NDRS).

Completeness of reporting, hospitalizations overall. During 2002, there were 171 hospitalizations of active duty service members at Naval medical treatment facilities for conditions considered reportable; and of those, 28 (16%) were reported through NDRS. The completeness of reporting overall was higher in 2002 than 2001 (figure 1).

Completeness of reporting, by diagnosis. As in previous years, the most common notifiable conditions that resulted in hospitalizations in 2002 were heat injuries (n=77), pneumococcal pneumonia (n=32), and varicella (n=12). Estimated completeness of reporting of these conditions was 18%, 3%, and 8%, respectively (table 1).

Completeness of reporting, by location. There was significant variability in the number and completeness of reporting of presumably reportable hospitalized cases across Naval medical treatment facilities. In 2002, 18 NMTFs had at least one reportable hospitalized case. None of the NMTFs had more than 40% of their cases reported through NDRS; and eleven NMTFs did not have any cases reported through NDRS.

Editorial comment. The results of the current assessment suggest that, in general, the completeness of reporting through NDRS remains low. On a monthly basis, Navy sites transmit notifiable event reports to Environmental Preventive Medicine Units (EPMUs); and once a month, EPMUs forward reports to the Navy Environmental Health Center. In turn, assessments of the timeliness of reporting are not routinely conducted because the results would be potentially misleading, difficult to interpret, and generally uninformative. Finally, the methods that are used for periodic assessments of the completeness of reporting may underestimate actual reporting completeness (as noted in the editorial comments included in the Army and Air Force reports elsewhere in this issue).

References

1.Tri-service reportable events: guidelines and case definitions, version 1.0, July 1998.

2.Memorandum: Office of the Assistant Secretary of Defense (Health Affairs). November 6, 1998. Subject: Tri-service reportable events document.

3. Navy Environmental Health Center. Naval disease reporting system (NDRS). Naval Medicine Surveillance Report (NMSR), 1998, 1:4,2.

Table 1. Completeness* of reporting of hospitalized** active duty cases through the Navy Disease Reporting System, by disease, US Navy and Marine Corps, 2000-2002***

	2000			2001			2002		
	Hospitalized	NDRS		Hospitalized	NDRS		Hospitalized	NDRS	
Reportable Event**	cases	reported	%	cases	reported	%	cases	reported	%
Amebiasis	1	0	0	0	0	-	0	0	-
Campylobacter	1	0	0	0	0	-	0	0	-
Carbon monoxide poisoning	2	0	0	2	0	0	2	0	0
Coccidioidomycosis	3	2	67	1	0	0	2	2	100
Cold injury	2	0	0	1	0	0	1	0	0
Dengue Fever	2	1	50	0	0	-	0	0	-
E. Coli 0157:H7	0	0	-	0	0	-	1	0	0
Ehrlichiosis	0	0	-	0	0	-	0	0	-
Encephalitis	0	0	-	0	0	-	1	0	0
Gonorrhea	7	1	14	4	1	25	8	1	13
Heat injury	46	11	24	76	5	7	77	14	18
Hepatitis A	1	0	0	1	0	0	1	0	0
Hepatitis B	3	2	67	4	1	25	1	0	0
Influenza	9	0	0	7	1	14	7	0	0
Legionellosis	0	0	-	1	0	0	3	0	0
Leptospirosis	0	0	-	0	0	-	0	0	-
Lyme Disease	0	0	-	1	0	0	0	0	-
Malaria	13	7	54	7	1	14	4	1	25
Meningococcal disease	6	5	83	3	3	100	4	3	75
Mumps	0	0	-	0	0	-	0	0	-
Pneumococcal pneumonia	27	0	0	15	0	0	32	1	3
Rheumatic fever, acute	0	0	-	1	1	100	1	0	0
Rocky Mountain spotted fever	2	0	0	1	0	0	0	0	-
Salmonellosis	2	1	50	3	0	0	0	0	-
Shigellosis	2	0	0	0	0	-	1	1	100
Streptococcus, group A, invasive	0	0	-	0	0	-	4	2	50
Syphillis	0	0	-	1	0	0	1	0	0
Toxic shock syndrome	2	0	0	0	0	-	0	0	-
Trichinosis	0	0	-	0	0	-	1	0	0
Tuberculosis, pulmonary	6	4	67	6	1	17	6	2	33
Typhoid fever	3	0	0	0	0	-	1	0	0
Varicella, active duty only	33	8	24	31	6	19	12	1	8
Total	173	42	24	166	20	12	171	28	16

*Completeness is the percent of hospitalized reported cases that were reported through the Naval Disease Reporting System (NDRS).

**Includes fixed military facilities and outsourced hospitalizations.

***Reportable diseases and conditions with no hospitalizations from 2000 through 2002 were excluded from this table.

Figure 1. Completeness of reporting of hospitalized cases of notifiable conditions, active duty servicemembers, US Navy medical treatment facilities, 1998-2002.

Table 2. Completeness*of reporting of hospitalized active duty cases, by medical treatment facility, US Navy and Marine Corps 2000-2002

	2000			2001			2002		
Location**	Hospitalized cases	NDRS reported	%	Hospitalized cases	NDRS reported	%	Hospitalized cases	NDRS reported	%
A	28	5	18	15	5	33	8	3	38
B	14	4	29	16	3	19	11	4	36
C	0	0	-	0	0	-	3	1	33
D	1	0	0	1	0	0	5	1	20
E	35	14	40	25	2	8	50	10	20
F	16	9	56	15	3	20	6	1	17
G	21	1	5	47	3	6	53	8	15
H	9	3	33	12	1	8	9	0	0
I	2	0	0	2	0	0	1	0	0
J	12	0	0	8	0	0	3	0	0
K	11	1	9	9	1	11	5	0	0
L	1	0	0	1	0	0	3	0	0
M	6	2	33	3	0	0	3	0	0
N	3	0	0	0	0	-	4	0	0
O	1	0	0	0	0	-	3	0	0
P	6	1	17	4	0	0	2	0	0
Q	1	0	0	1	0	0	1	0	0
R	5	1	20	1	0	0	1	0	0
S	1	1	100	0	0	-	0	0	-
T	0	0	-	3	1	33	0	0	-
U	0	0	-	3	1	33	0	0	-
Total	172	41	24	160	18	11	171	28	16

*Completeness is the percent of hospitalized reported cases that were reported through the Naval Disease Reporting System (NDRS).

**Locations with no reportable hospitalizations from 2000 through 2002 were excluded from this table.

Completeness of Reporting of Hospitalized Notifiable Conditions Among Active Duty Servicemembers, US Air Force Medical Treatment Facilities, 1998– 2002

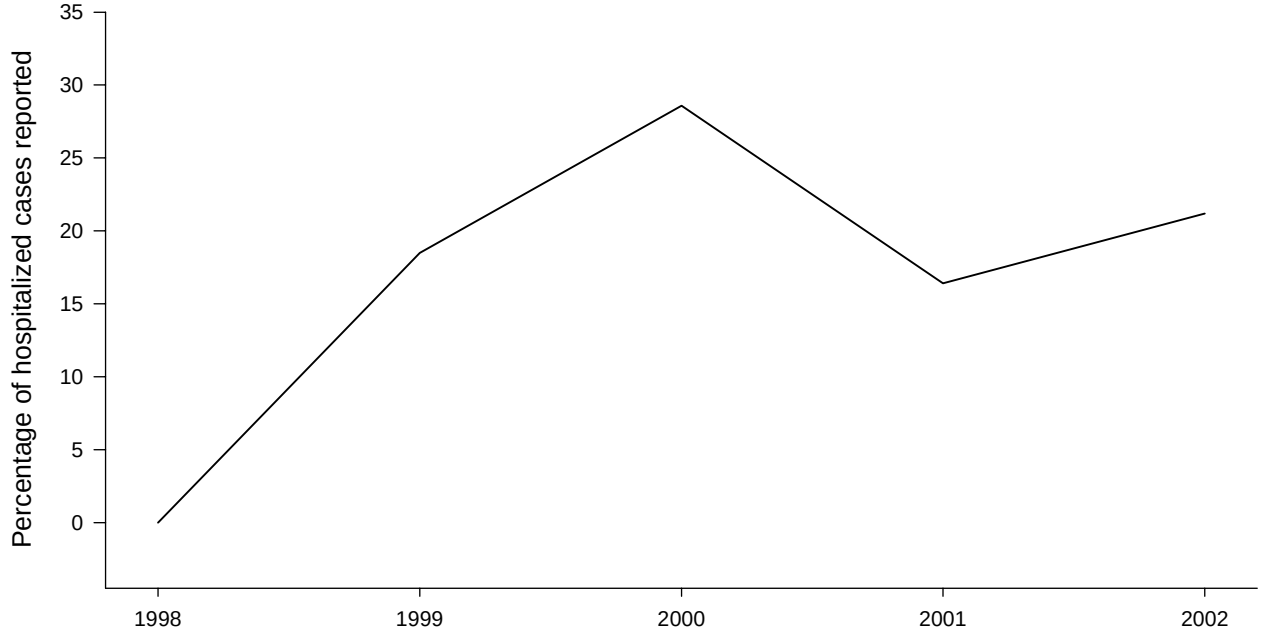
In 1998, the US Air Force began automated reporting of notifiable medical conditions[1]. Collection and entry of notifiable hospitalization case reports into the Air Force Reportable Events Surveillance System (AFRESS) are performed by Public Health offices at Air Force sites worldwide. Case reports are transmitted from individual sites to the Air Force Institute for Operational Health (AFIOH), Epidemiology Services Branch. Reports are then forwarded to the Army Medical Surveillance Activity for integration into the Defense Medical Surveillance System (DMSS). This report summarizes the completeness of reporting of hospitalized cases of notifiable conditions among active duty service members at Air Force medical treatment facilities (MTF) from 1998 to 2002.

Hospitalized cases of notifiable conditions were identified using ICD-9-CM coded discharge diagnoses. To estimate the completeness and timeliness of reporting, records of reportable hospitalized cases were compared with confirmed reports submitted through the AFRESS.

Completeness of reporting, hospitalizations overall. During 2002, there were 65 hospitalizations of active duty service members at Air Force medical treatment facilities for conditions considered reportable. Of those, 12 (18%) were reported through the AFRESS. Overall, the proportion of hospitalized cases reported in 2002 was higher than in 2001 (figure 1).

Completeness of reporting, by diagnosis. In 2002, the notifiable condition that resulted in the most presumably reportable hospitalizations was pneumococcal pneumonia (n=19)—none were reported through the AFRESS. Of note, all hospitalized cases of malaria (n=4) were reported (table 1).

Figure 1. Completeness of reporting of hospitalized cases of notifiable conditions, active duty servicemembers, US Air Force medical treatment facilities, 1998-2002.



Completeness of reporting, by location. In 2002, the number and completeness of reporting of reportable hospitalized cases varied significantly across Air Force MTFs. During the year, 21 sites had at least one reportable hospitalized case; and of these, five reported at least half of their cases and 15 reported none (table 2).

Editorial comment The results of this analysis suggest that overall completeness of reporting of hospitalized notifiable cases by Air Force MTFs remains low. An assessment of the timeliness of reporting from Air Force MTFs to the Defense Medical Surveillance System was not conducted. From 1998 to June 2002, Air Force Public Health offices transmitted notifiable event reports to AFIOH once per month. A version upgrade to AFRESS in June 2002 enabled automatic transmissions of reportable event reports from installation Air Force Public Health offices to AFIOH. Still, however, AFIOH transmits reportable event records to AMSA only once per month; thus, assessments of timeliness

Table 1. Completeness* of reporting of hospitalized active duty cases through the Air Force Reportable Events Surveillance System, by disease, US Air Force, 2000-2002*****

	2000			2001			2002		
	Hospitalized	AFRESS		Hospitalized	AFRESS		Hospitalized	AFRESS	
Reportable Event**	cases	reported	%	cases	reported	%	cases	reported	%
Amebiasis	0	0	-	0	0	-	1	0	0
Campylobacter	0	0	-	0	0	-	1	0	0
Carbon monoxide poisoning	2	0	0	0	0	-	0	0	-
Coccidioidomycosis	4	0	0	3	0	0	0	0	-
Cold injury	0	0	-	0	0	-	2	0	0
Cryptosporidiosis	0	0	-	0	0	-	1	0	0
Giardiasis	0	0	-	1	0	0	0	0	-
Gonorrhea	1	0	0	3	3	100	4	1	25
H. influenzae, invasive	1	0	0	0	0	-	0	0	-
Heat injury	4	2	50	7	0	0	4	0	0
Hepatitis A	0	0	-	0	0	-	1	0	0
Hepatitis B	1	0	0	0	0	-	0	0	-
Influenza	13	6	46	10	2	20	7	3	43
Legionellosis	1	1	100	2	0	0	2	0	0
Leishmaniasis	0	0	-	0	0	-	1	0	0
Lyme disease	1	0	0	2	0	0	1	0	0
Malaria	3	2	67	3	2	67	4	4	100
Meningococcal disease	1	1	100	3	0	0	2	0	0
Pertussis	0	0	-	1	0	0	0	0	-
Pneumococcal pneumonia	9	0	0	10	0	0	19	0	0
Rocky Mountain spotted fever	0	0	-	0	0	-	2	1	50
Salmonellosis	4	3	75	0	0	-	4	0	0
Shigellosis	0	0	-	0	0	-	1	1	100
Streptococcus, group A, invasive	1	0	0	2	0	0	0	0	-
Syphillis	0	0	-	1	1	100	0	0	-
Toxic shock syndrome	1	0	0	0	0	-	1	0	0
Tuberculosis, pulmonary	1	0	0	4	0	0	3	1	33
Urethritis, non-gonococcal	0	0	-	1	0	0	0	0	-
Varicella, active duty only	8	1	13	8	2	25	4	1	25
Total	56	16	29	61	10	16	65	12	18

*Completeness is the percent of hospitalized reported cases that were reported through the Air Force Reportable Events Surveillance System (AFRESS).

**Includes fixed military facilities and outsourced hospitalizations.

***Reportable diseases and conditions with no hospitalizations from 2000 through 2002 were excluded from this table.

of reporting would be difficult to interpret and not very informative. Finally, the methods used for these periodic assessments may result in underestimates of actual reporting completeness because (1) some ICD-9-CM codes are not specific for reportable conditions alone (i.e., they include clinical states that are not reportable); and (2) diagnoses made in hospital settings may not use the same criteria as those required for confirmed reportable cases.

References

1 Tri-service reportable events: guidelines and case definitions, version 1.0, July 1998.

Table 2. Completeness*of reporting of hospitalized active duty cases, by medical treatment facility, US Air Force, 2000-2002

	2000			2001			2002		
	Hospitalized	AFRESS		Hospitalized	AFRESS		Hospitalized	AFRESS	
Location**	cases	reported	%	cases	reported	%	cases	reported	%
A	1	1	100	0	0	-	1	1	100
B	1	0	0	0	0	-	1	1	100
C	0	0	-	0	0	-	1	1	100
D	0	0	-	0	0	-	4	4	100
E	1	0	0	1	0	0	1	1	100
G	14	6	43	17	4	24	27	4	15
F	0	0	-	0	0	-	2	0	0
H	1	0	0	0	0	-	1	0	0
I	2	0	0	3	0	0	6	0	0
J	0	0	-	0	0	-	1	0	0
K	3	3	100	0	0	-	2	0	0
L	0	0	-	0	0	-	1	0	0
M	4	0	0	4	2	50	2	0	0
N	2	0	0	1	1	100	1	0	0
O	4	2	50	2	1	50	1	0	0
P	0	0	-	2	1	50	3	0	0
Q	5	0	0	10	0	0	3	0	0
R	1	1	100	0	0	-	3	0	0
S	0	0	-	1	0	0	1	0	0
T	0	0	-	0	0	-	2	0	0
U	3	1	33	1	0	0	1	0	0
V	2	0	0	0	0	-	0	0	-
W	0	0	-	2	0	0	0	0	-
X	3	0	0	1	0	0	0	0	-
Y	0	0	-	3	0	0	0	0	-
Z	1	0	0	0	0	-	0	0	-
AA	1	0	0	0	0	-	0	0	-
BB	0	0	-	1	0	0	0	0	-
CC	2	1	50	2	0	0	0	0	-
DD	0	0	-	1	0	0	0	0	-
EE	1	0	0	3	0	0	0	0	-
FF	1	0	0	1	0	0	0	0	-
GG	0	0	-	1	0	0	0	0	-
HH	1	1	100	0	0	-	0	0	-
II	1	0	0	0	0	-	0	0	-
JJ	1	0	0	4	1	25	0	0	-
Total	44	14	32	42	9	21	65	12	18

*Completeness is the percent of hospitalized reported cases that were reported through the Air Force Reportable Events Surveillance System (AFRESS).

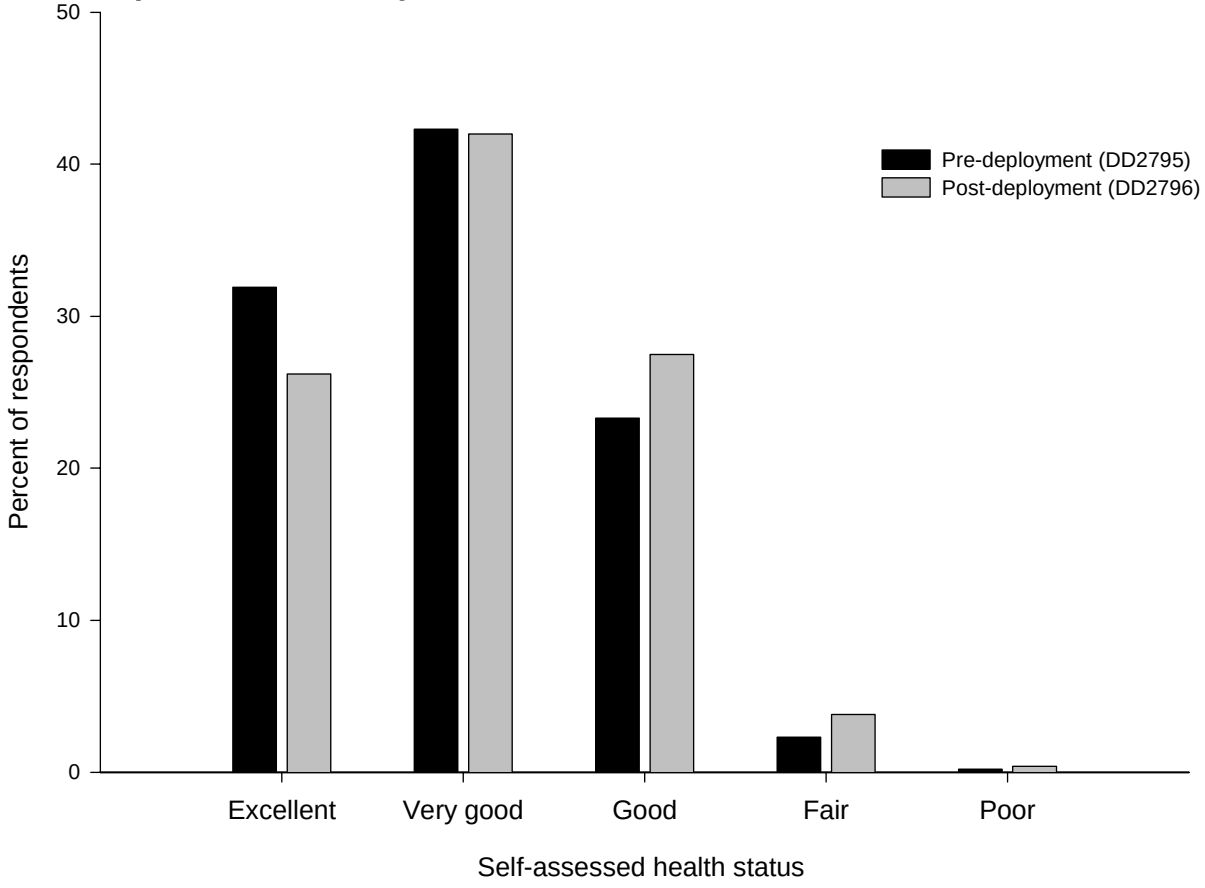
**Locations with no reportable hospitalizations from 2000 through 2002 were excluded from this table.

Update: Pre- and Post-deployment Health Assessments, US Armed Forces, September 2002-July 2003

The June 2003 issue of the MSMR summarized the background of, rationale for, and applicable polices and guidelines related to pre- and post-deployment health assessments of deploying servicemembers.[1-10] Briefly, prior to deploying, the health of each servicemember is assessed to ensure his/her medical fitness and readiness for deployment; and at the time of redeployment, the health of each servicemember is again assessed to identify medical conditions and/or exposures of concern—to ensure timely and comprehensive evaluation and treatment. Completed pre- and post-deployment health assessment forms are routinely sent to the Army Medical Surveillance Activity (AMSA) where they are scanned, data entered, and archived in the Defense Medical Surveillance System (DMSS).[11] In the DMSS, data recorded on pre- and post-deployment forms are integrated with data that document demographic and military characteristics and medical experiences (e.g., hospitalizations, ambulatory visits, immunizations) of servicemembers.[11] The continuously expanding integrated DMSS database can be used to monitor the health of servicemembers who participate in various deployments.[11-13]

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

Figure 1. Percent distributions of self-assessed overall health status, pre- and post-deployment health assessments, US Armed Forces, September 2002-July 2003.



changes in responses of individuals from pre- to post-deployment.

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

Results. From 1 September 2002 to 31 July 2003, 363,763 pre-deployment health assessment forms were completed at field sites, shipped to AMSA, and entered into the DMSS database—approximately two-thirds (64.7%) were completed in January, February, or March (table 1).

From 1 January to 30 June 2003, 132,542 post-deployment health assessments were completed at field sites, shipped to AMSA, and entered into the DMSS database—approximately two-thirds (65.6%) were completed in May or June (table 1).

In general, the distributions of self-assessments of "overall health status" were similar among pre- and post-deployment form respondents (figure 1). Relatively more pre-deployment (31.9%) than post-deployment (26.2%) respondents assessed their "overall health" as "excellent"; nearly identical proportions (42%) of respondents to each of the forms assessed their "overall health" as "very good"; and before and after deploying, fewer than 5% of respondents assessed their overall health as "fair" or "poor" (figure 1).

On post-deployment forms, approximately 14% of active and 23% of Reserve component respondents reported "medical/dental problems; and approximately 2% of respondents overall reported "mental health concerns"(table 2). Approximately 15% of post-deployment forms overall documented that "referrals" were indicated (table 2).

Among servicemembers (n=70,581) who completed both forms, approximately half (52.2%) chose the same descriptor of their "overall health status" before and after deploying (figures 2, 3). Of those (n=33,745) who changed their health status assessments from pre- to post-deployment, most (80.3%) changed by a single category (on a five category scale) (figure 2,3); and of those who changed by more than one category, more indicated a decrement (n=5,751) than an improvement (n=966) in overall health (figure 3).

Table 1. Pre-deployment and post-deployment health assessments, by month and year, US Armed Forces, through July 2003

	Pre-deployment *		Post-deployment **	
	No.	%	No.	%
Total	363,763	100.0	132,542	100.0
2002				
September	10,911	3.0	-	-
October	16,310	4.5	-	-
November	18,463	5.1	-	-
December	15,588	4.3	-	-
2003				
January	64,864	17.8	5,089	3.8
February	103,856	28.6	4,437	3.3
March	66,476	18.3	5,812	4.4
April	33,823	9.3	14,186	10.7
May	10,557	2.9	54,490	41.1
June	12,448	3.4	32,488	24.5
July	10,467	2.9	16,040	12.1

* Total pre-deployment assessments (DD Form 2795), 1 September 2002-31 July 2003.

** Total post-deployment assessments (DD Form 2796), 1 January 2003-31 July 2003.

Overall, 11.3% of all servicemembers who completed post-deployment forms reported deployment-related "exposure concerns." The likelihood of reporting an "exposure concern" increased monotonically with age (table 3). In general, reservists, members of the Marine Corps and Army, females, officers, and individuals of Hispanic ethnicity were more likely to report "exposure concerns" than their respective counterparts (table 3).

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

Overall, approximately one of every 9 servicemembers who completed post-deployment health assessments reported an "exposure concern." Of demographic factors, the strongest correlate of reporting an exposure concern was older age. The higher crude prevalences of exposure concerns among reservists (versus active component) and officers (versus enlisted), for example, may be related at least in part to differences in the age distributions of the respective groups. Trends in the numbers and natures of deployment-related "exposure concerns" will be monitored as more servicemembers return from overseas assignments and/or demobilize.

Figure 2. Self-assessed health status on post-deployment form, in relation to self-assessed health status pre-deployment, US Armed Forces, September 2002-July 2003.

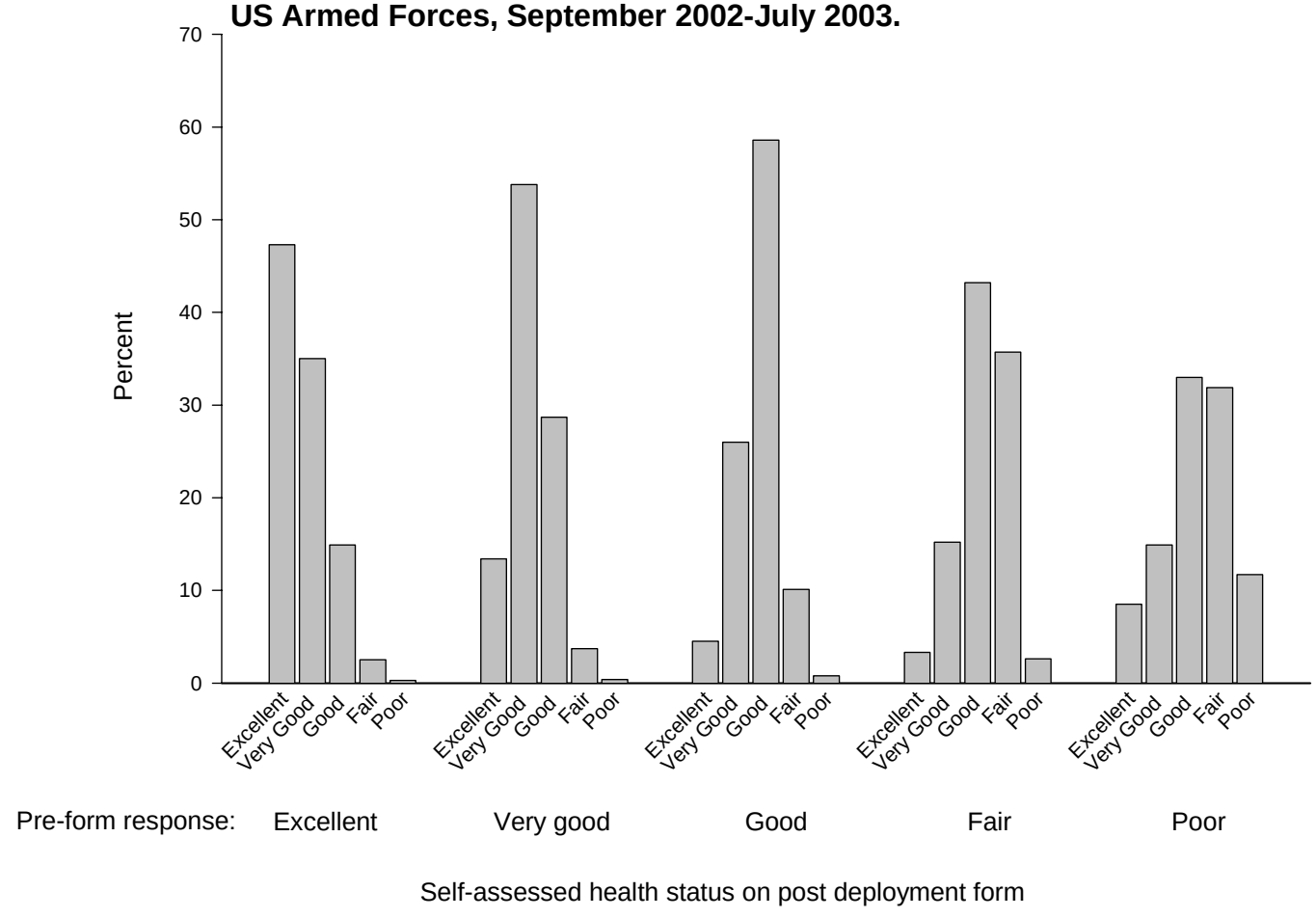


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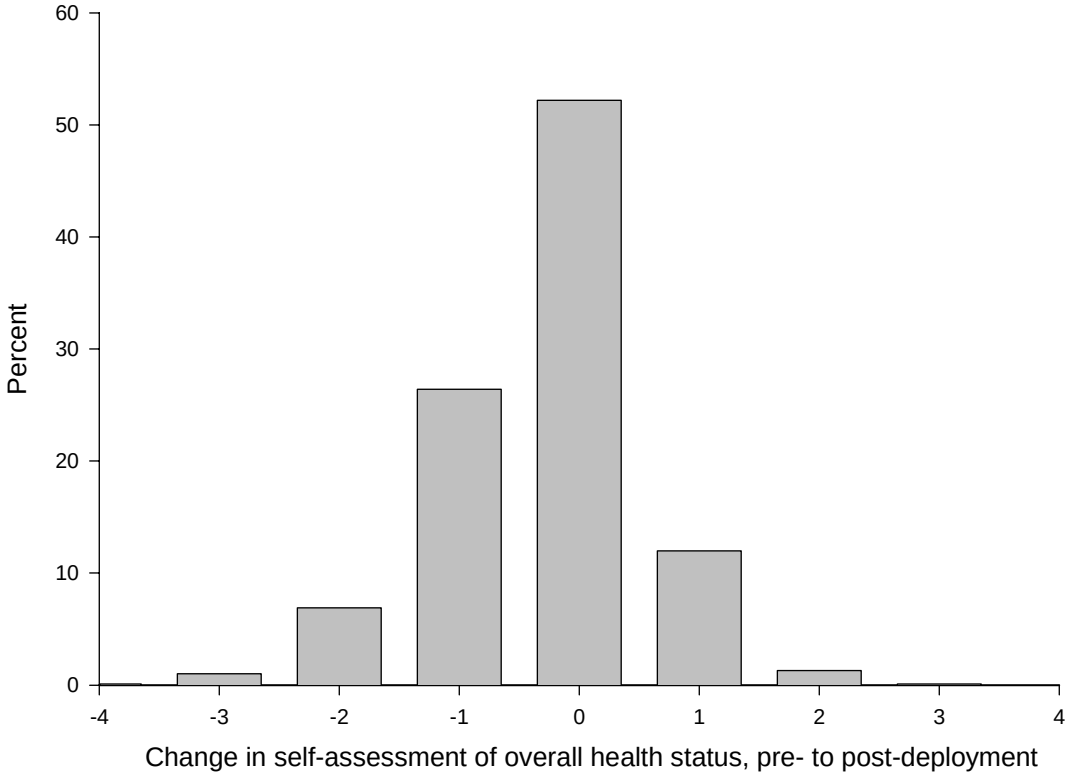
Table 2. Responses to selected questions from post-deployment health assessments forms (DD2796) completed since 1 January 2003, by service and component, US Armed Forces*

Active duty component	Army	Navy	Air Force	Marines	Total
SMs with DD 2796 at AMSA	23,135	3,804	17,540	11,491	55,970
General health ("fair" or "poor")	7%	3%	1%	4%	4%
Medical/dental problems	20%	12%	8%	14%	14%
Currently on profile	12%	1%	1%	2%	6%
Mental health concerns	3%	1%	1%	1%	2%
Exposure concerns	13%	8%	4%	11%	9%
Health concerns	12%	7%	3%	6%	8%
Referral indicated	27%	16%	16%	10%	16%
Med. visit following referral**	69%	59%	69%	37%	65%
Post deployment serum**	90%	22%	11%	80%	75%
Reserve component					
SMs with DD 2796 at AMSA	24,382	2,859	6,709	2,177	36,127
General health ("fair" or "poor")	6%	4%	2%	5%	5%
Medical/dental problems	24%	28%	14%	30%	23%
Currently on profile	12%	4%	2%	3%	9%
Mental health concerns	3%	1%	1%	3%	2%
Exposure concerns	13%	9%	8%	30%	12%
Health concerns	14%	15%	7%	19%	12%
Referral Indicated	19%	16%	17%	28%	15%
Med. visit following referral***	29%	72%	13%	33%	30%
Post deployment serum**	87%	66%	14%	71%	81%

* As of 04AUG2002.

** Inpatient or outpatient visit within 6 months after referral.

Figure 3. Distribution of self-assessed health status changes from pre- to post-deployment form, US Armed Forces, September 2002-July 2003.



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

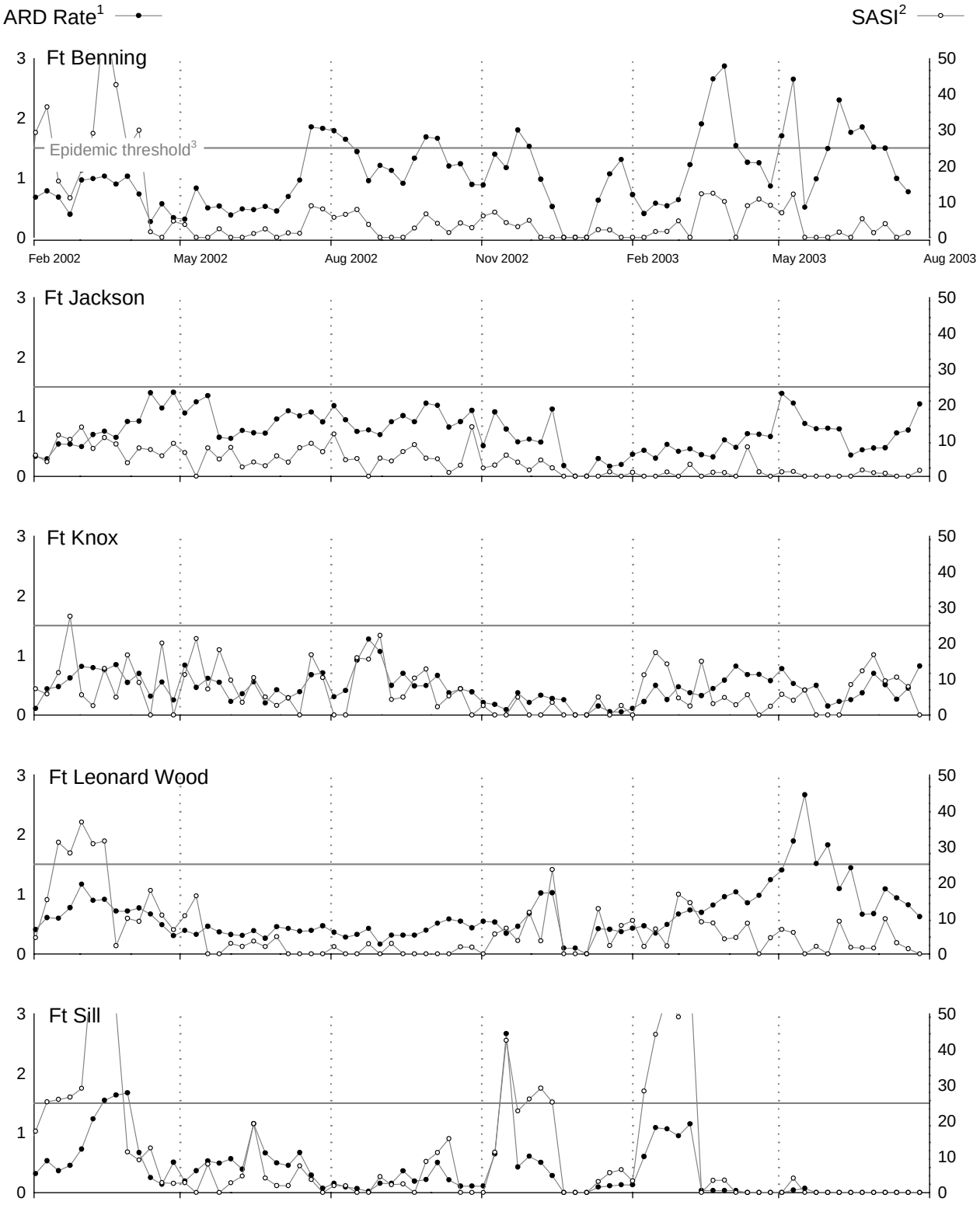
Table 3. Deployment-related "exposure concerns" reported on post-deployment health assessments*, US Armed Forces, January-July 2003

	Total respondents	Exposure Concerns (no.)	Exposure concerns (%)
Total	118,011	13,289	11.3
Component			
Active	75,678	7,648	10.1
Reserve	42,333	5,641	13.3
Service			
Army	58,349	7,958	13.6
Navy	11,433	1,020	8.9
Air Force	28,987	1,647	5.7
Marine Corps	19,248	2,668	13.9
Age (years)			
<20	4,221	262	6.2
20-29	59,753	5,787	9.7
30-39	34,535	4,353	12.6
>39	19,508	2,891	14.8
Gender			
Men	104,772	11,564	11.0
Women	13,245	1,729	13.1
Race/ethnicity			
Black	20,729	2,602	12.6
Hispanic	5,197	737	14.2
Other	6,612	786	11.9
White	84,485	9,084	10.8
Grade			
Enlisted	100,695	10,967	10.9
Officer	17,320	2,325	13.4

* Post-deployment health assessments (DD Form 2796) with completion dates: 1 January-31 July 2003.

Source: DMSS, 31 July 2003.

Acute respiratory disease (ARD) and streptococcal pharyngitis (SASI), Army Basic Training Centers, by week through July 26, 2003



[1]ARD rate = cases per 100 trainees per week

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

[3]ARD rate >=1.5 or SASI >=25.0 for 2 consecutive weeks indicates an "epidemic"

Sentinel reportable events for all beneficiaries[1] at US Army medical facilities, cumulative numbers[2] for calendar years through July 31, 2002 and 2003

Reporting location	Number of reports all events[3]		Food-borne								Vaccine Preventable					
			Campylo-bacter		Giardia		Salmonella		Shigella		Hepatitis A		Hepatitis B		Varicella	
	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003
NORTH ATLANTIC																
Washington, DC Area	162	183	5	.	2	4	3	2	7	3	1	.	.	.	.	2
Aberdeen, MD	34	48	.	.	.	.	.	.	1	.	.	.	1	.	.	.
FT Belvoir, VA	128	135	6	6	3	.	7	9	.	3	.	.	.	.	.	.
FT Bragg, NC	1,333	1,164	8	5	.	.	11	10	8	17	.	.	1	.	.	2
FT Drum, NY	48	118	1	.	.	1	.	.	.	.	.	.	.	.	.	2
FT Eustis, VA	161	156	1	.	.	.	1	1	6	.	.	.	1	.	2	2
FT Knox, KY	156	157	4	1	2	.	4	4	.	.	.	.	.	.	.	.
FT Lee, VA	151	112	.	.	.	.	.	2	.	.	.	.	.	.	.	.
FT Meade, MD	66	64	.	.	.	.	.	.	.	1	.	.	.	.	1	.
West Point, NY	48	37	.	2	.	.	1	1	.	.	1	1	1	1	.	.
GREAT PLAINS																
FT Sam Houston, TX	172	129	.	.	.	.	2	4	.	.	.	.	.	.	.	.
FT Bliss, TX	131	209	.	1	1	3	4	2	2	1	.	.	2	2	.	1
FT Carson, CO	378	302	4	3	2	4	1	2	.	.	.	4	2	.	.	1
FT Hood, TX	1,405	972	1	6	.	.	7	16	1	70	.	.	.	.	.	.
FT Huachuca, AZ	29	43	.	.	.	.	.	.	.	.	.	.	.	.	.	.
FT Leavenworth, KS	23	31	.	2	.	.	.	1	.	.	1	.	.	.	.	.
FT Leonard Wood, MO	145	146	.	1	.	.	1	.	.	.	.	.	.	1	2	3
FT Polk, LA	124	136	.	1	.	.	1	2	.	.	.	.	.	.	.	.
FT Riley, KS	168	121	.	3	.	2	.	.	.	.	.	.	.	2	1	.
FT Sill, OK	179	143	1	.	.	.	.	.	5	.	.	.	.	.	.	.
SOUTHEAST																
FT Gordon, GA	133	195	.	.	.	1	.	1	1	.	1	.	1	1	.	.
FT Benning, GA	280	252	.	.	3	1	9	4	.	4	.	.	.	.	2	.
FT Campbell, KY	452	313	2	3	.	3	4	4	2	.	.	.	.	.	1	.
FT Jackson, SC	152	91	.	.	.	.	.	.	.	.	.	1	.	.	1	.
FT Rucker, AL	53	35	1	.	.	.	.	2	.	.	.	1	.	.	.	.
FT Stewart, GA	395	192	.	.	1	.	7	5	2	3	.	.	.	.	1	.
WESTERN																
FT Lewis, WA	454	347	2	1	.	5	5	4	.	3	.	.	.	.	.	.
FT Irwin, CA	31	34	.	.	.	.	.	.	.	.	.	.	.	.	.	.
FT Wainwright, AK	77	80	1	.	1	.	1	.	.	.	.	.	.	.	.	.
OTHER LOCATIONS																
Hawaii	519	607	33	15	10	4	8	7	.	4	.	.	2	.	.	.
Europe	1,248	854	17	12	.	.	24	12	1	.	.	6	6	.	5	3
Korea	280	338	1	.	.	.	3	.	.	.	.	1	1	.	1	1
Total	**9,115**	**7,744**	**88**	**62**	**25**	**28**	**104**	**95**	**36**	**109**	**4**	**14**	**18**	**7**	**17**	**17**

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

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

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 beneficiaries[1] at US Army medical facilities, cumulative numbers[2] for calendar years through July 31, 2002 and 2003

Reporting location	Arthropod-borne				Sexually Transmitted								Environmental			
	Lyme Disease		Malaria		Chlamydia		Gonorrhea		Syphilis[3]		Urethritis[4]		Cold		Heat	
	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003
NORTH ATLANTIC																
Washington, DC Area	3	2	2	2	60	115	12	15	3	2	.	.	.	1	2	.
Aberdeen, MD	.	2	.	.	31	27	1	10	.	.	.	.	.	9	.	.
FT Belvoir, VA	2	.	.	.	81	94	24	21	1	.	.	.	.	.	2	1
FT Bragg, NC	.	1	1	5	972	816	164	172	1	5	85	72	.	4	71	54
FT Drum, NY	.	.	.	.	29	82	15	18	.	.	.	.	.	4	3	.
FT Eustis, VA	1	.	.	.	123	119	25	29	.	1	.	.	.	.	1	.
FT Knox, KY	.	.	.	.	118	131	23	17	.	.	.	.	.	.	3	.
FT Lee, VA	1	.	.	.	127	90	22	20	.	.	.	.	.	.	1	.
FT Meade, MD	4	.	.	.	54	53	5	10	.	.	2	.	.	.	.	.
West Point, NY	11	14	.	.	9	12	5	1	.	.	.	.	.	.	19	5
GREAT PLAINS																
FT Sam Houston, TX	.	.	.	.	127	98	21	25	.	1	.	.	.	.	1	.
FT Bliss, TX	.	.	.	.	68	148	9	36	1	2	.	.	.	.	.	1
FT Carson, CO	.	.	1	.	253	215	32	28	.	.	35	32	1	2	.	1
FT Hood, TX	.	.	3	3	758	519	292	159	3	1	223	131	.	5	21	9
FT Huachuca, AZ	.	.	.	.	21	41	6	2	.	.	.	.	.	.	2	.
FT Leavenworth, KS	.	.	.	.	16	25	6	2	.	.	.	.	.	.	.	.
FT Leonard Wood, MO	.	.	1	.	107	121	23	12	.	1	2	.	.	2	4	2
FT Polk, LA	.	.	1	1	82	98	33	34	3	.	.	.	.	.	.	.
FT Riley, KS	.	.	.	.	119	106	33	6	.	.	.	.	11	.	3	.
FT Sill, OK	.	.	.	.	102	90	26	19	.	1	29	24	.	.	16	1
SOUTHEAST																
FT Gordon, GA	2	.	.	1	108	169	17	11	.	4	.	.	.	.	.	2
FT Benning, GA	.	.	.	19	129	137	70	63	1	.	.	.	.	.	61	23
FT Campbell, KY	.	1	.	.	351	219	80	65	1	1	.	.	1	2	5	6
FT Jackson, SC	.	.	.	.	122	58	27	9	1	.	.	.	1	4	.	17
FT Rucker, AL	.	.	.	.	37	21	11	5	.	.	.	1	.	.	4	4
FT Stewart, GA	2	.	.	.	244	87	96	42	1	.	.	35	.	.	38	12
WESTERN																
FT Lewis, WA	.	.	2	2	324	206	46	51	2	.	69	61	.	.	.	1
FT Irwin, CA	.	.	.	.	22	24	9	9	.	.	.	.	.	.	.	.
FT Wainwright, AK	1	.	.	1	51	52	5	7	.	.	.	.	13	15	.	.
OTHER LOCATIONS																
Hawaii	.	.	2	.	354	406	56	75	1	.	.	.	.	.	2	8
Europe	6	2	5	2	892	630	269	149	3	2	3	1	4	3	5	7
Korea	.	.	1	2	208	275	57	42	.	2	1	4	3	3	3	1
Total	**33**	**22**	**19**	**38**	**6,099**	**5,284**	**1,520**	**1,164**	**22**	**23**	**449**	**361**	**34**	**54**	**267**	**155**

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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