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Update: Screening for HIV-1 among Soldiers in Active and Reserve Components, U.S. Army, and Civilian Applicants for Military Service, January 1990-June 2006

Since October 1985, the U.S. military has conducted routine screening at Military Entrance Processing Stations (MEPS) to detect antibodies to HIV-1 among civilian applicants for military service. Since 1986, all members of the active and reserve components of the U.S. Armed Forces have been periodically screened for antibodies to HIV-1. This report summarizes prevalences and trends of new diagnoses of HIV-1 infection among civilian applicants for military service and soldiers in the active and reserve components of the U.S. Army who have been screened since 1990.

Methods: For soldiers in the active, Reserve, and National Guard components of the U.S. Army, prevalences of new diagnoses of HIV-1 infection were identified by matching specimen numbers, dates, and test results with identifiers and demographic characteristics of related tested subjects. All data were accessed from the Defense Medical Surveillance System.

For this summary, a new HIV-1 diagnosis was defined as any "positive" result that was the last result on record for an individual. In the group of individuals whose last result was positive, the first positive result on record was used to determine the calendar year in which the new diagnosis occurred. In Army components, the denominator was the number of soldiers in each component who were tested at least once during each calendar year. Annual HIV-1 prevalences among civilian applicants for service were calculated by dividing the number of applicants with new diagnoses of HIV-1 infection in each year by the number of applicants tested each year.

Results:

Army, active component: From January 2005 to June 2006, 645,132 tests for antibodies to HIV-1 were conducted among 535,826 soldiers in the active component of the U.S. Army (Table 1). During this 18-month period, 94 soldiers were diagnosed with HIV-1 infections (Table 1). During calendar year 2005, the overall prevalence of HIV-1 infection was 0.16 per 1,000 soldiers tested, and on average, one HIV-1 infection was detected per 7,754 tests (Table 1).

In general, overall prevalences of HIV-1 have been relatively stable over the past seven years (range, crude annual prevalences, 1999-2005: 0.15-0.19 per 1,000 soldiers tested) (Table 1). However, among both male and female soldiers, prevalences slightly increased between 2004 and June 2006 (Figure 1). Of the 1,284 soldiers diagnosed with HIV-1 infection since 1990, 360 (28.0%) remain in active service (Table 1).

Army National Guard: From January 2005 through June 2006, more than 300,000 tests for antibodies to HIV-1 were administered to 262,145 soldiers of the U.S. Army National Guard (Table 2). During this 18-month period, 45 soldiers were diagnosed with HIV-1 infections (Table 2). The overall prevalence of HIV-1 infections in 2005 was 0.18 per 1,000 soldiers tested; on average, one HIV-1 infection was detected per 6,830 tests (Table 2).

Among males, the prevalence in 2005 was the lowest of any year since 1990, continuing a trend of gradual decline since 1996 (Table 2). Among females, prevalences have been generally low since 1990 (range, HIV-1 positive females per year, 1990-2005: 0-5) (Figure 2). Of 669 National Guard soldiers diagnosed with HIV-1 infections since 1990, 120 (17.9%) remain in service (Table 2).

Army Reserve: From January 2005 through June 2006, nearly 141,000 tests for antibodies to HIV-1 were administered to 124,269 soldiers in the U.S. Army Reserve (Table 3). During this 18-month period, 36 soldiers were diagnosed with HIV-1 infections. The overall prevalence of new infections in 2005 was 0.20 per 1,000 soldiers tested; on average, one HIV-1 infection was detected per 5,841 tests (Table 3). The overall prevalence of HIV-1 in 2005 was the lowest annual prevalence of the past 15 years (Table 3). Of 576 Reservists diagnosed with HIV-1 since 1990, 124 (21.5%) are still serving (Table 3, Figure 3).

Civilian applicants for U.S. military service: From January 2005 to June 2006, more than 485,000 HIV-

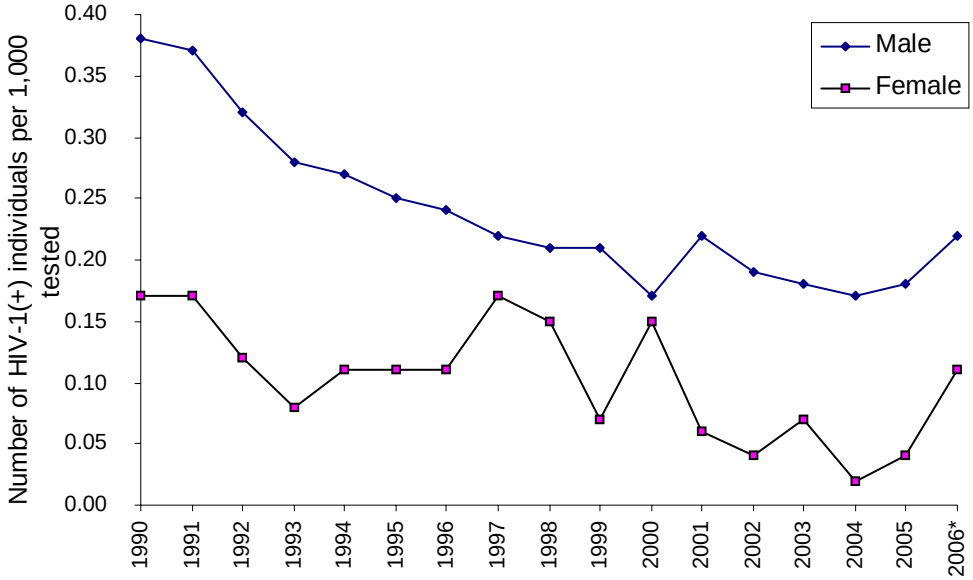
Continued on page 8

Table 1. New diagnoses of HIV-1 infections, by gender, active component U.S. Army, January 1990-June 2006

Year	Total HIV tests	Total persons tested	Males tested	Females tested	Sex un-known tested	Total new HIV-1 (+)	New HIV-1 (+) male	New HIV-1 (+) female	Overall HIV-1 (+) per 1000 tested	Male HIV-1 (+) per 1000 tested	Female HIV-1 (+) per 1000 tested	HIV-1(+) still in AD at year 2006
1990	505,957	423,190	369,858	53,199	133	151	142	9	0.36	0.38	0.17	4
1991	448,046	384,905	336,451	48,325	129	134	125	8	0.35	0.37	0.17	4
1992	499,629	419,200	367,072	51,987	141	125	119	6	0.30	0.32	0.12	9
1993	447,510	364,082	315,953	48,021	108	94	90	4	0.26	0.28	0.08	8
1994	414,173	339,238	292,216	46,935	87	84	79	5	0.25	0.27	0.11	10
1995	464,570	340,342	292,765	47,484	93	77	72	5	0.23	0.25	0.11	13
1996	405,172	307,226	261,394	45,758	74	68	63	5	0.22	0.24	0.11	12
1997	402,057	299,617	252,915	46,620	82	64	56	8	0.21	0.22	0.17	18
1998	375,661	301,294	253,057	48,158	79	61	54	7	0.20	0.21	0.15	16
1999	347,279	287,920	241,807	46,037	76	54	51	3	0.19	0.21	0.07	15
2000	352,160	288,878	241,781	47,028	69	48	41	7	0.17	0.17	0.15	21
2001	383,214	311,593	261,651	49,927	15	60	57	3	0.19	0.22	0.06	24
2002	419,481	331,294	278,414	52,838	42	56	54	2	0.17	0.19	0.04	35
2003	495,654	364,753	307,595	57,134	24	60	56	4	0.16	0.18	0.07	38
2004	477,853	371,555	316,949	54,606	0	54	53	1	0.15	0.17	0.02	44
2005	434,236	346,792	295,663	51,129	0	56	54	2	0.16	0.18	0.04	51
2006*	210,896	189,034	161,269	27,765	0	38	35	3	0.20	0.22	0.11	38
Total	**7,083,548**	**5,670,913**	**4,846,810**	**822,951**	**1,152**	**1,284**	**1,201**	**82**				**360**

* Through 30 June 2006.

Figure 1. New diagnoses of HIV-1 infections, per 1,000 tested, by gender, active component U.S. Army, January 1990-June 2006.



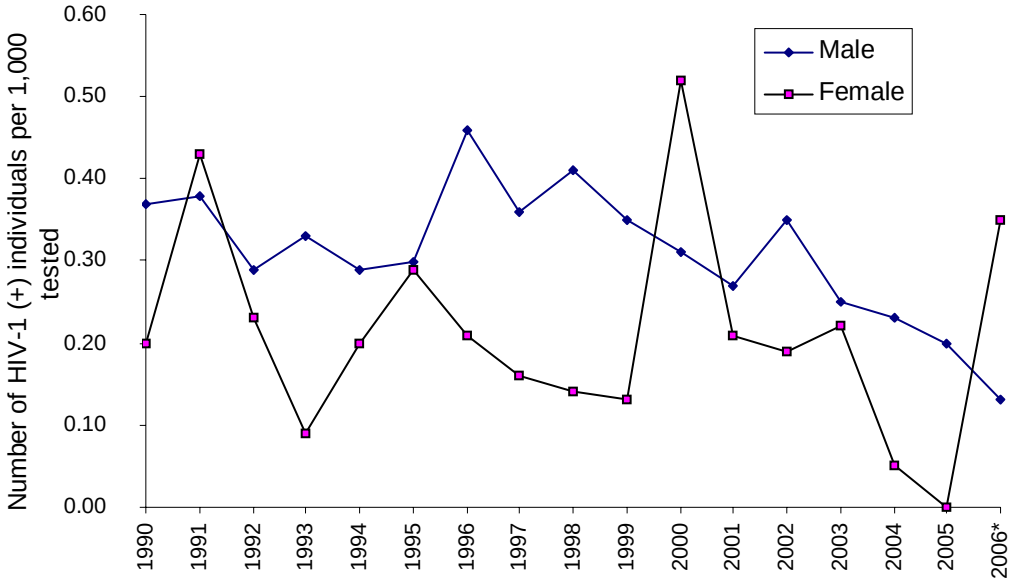
* Through 30 June 2006.

Table 2. New diagnoses of HIV-1 infections by gender, Army National Guard, January 1990-June 2006

Year	Total HIV tests	Total persons tested	Males tested	Females tested	Total new HIV-1 (+)	New HIV-1 (+) male	New HIV-1 (+) female	Overall HIV-1 (+) per 1000 tested	Male HIV-1 (+) per 1000 tested	Female HIV-1 (+) per 1000 tested	HIV-1(+) still in NG at year 2006
1990	231,073	213,772	198,702	15,065	76	73	3	0.36	0.37	0.20	0
1991	191,315	178,702	166,940	11,759	68	63	5	0.38	0.38	0.43	2
1992	252,642	235,634	218,351	17,280	68	64	4	0.29	0.29	0.23	1
1993	168,448	158,482	146,797	11,683	49	48	1	0.31	0.33	0.09	0
1994	199,867	186,207	171,533	14,674	52	49	3	0.28	0.29	0.20	3
1995	147,600	140,556	130,205	10,350	42	39	3	0.30	0.30	0.29	6
1996	62,319	58,946	54,074	4,872	26	25	1	0.44	0.46	0.21	1
1997	71,677	68,274	61,869	6,405	23	22	1	0.34	0.36	0.16	1
1998	79,236	75,867	68,765	7,102	29	28	1	0.38	0.41	0.14	2
1999	86,380	81,484	73,655	7,829	27	26	1	0.33	0.35	0.13	5
2000	77,139	73,237	65,568	7,669	24	20	4	0.33	0.31	0.52	6
2001	103,794	95,432	85,681	9,751	25	23	2	0.26	0.27	0.21	2
2002	116,288	105,948	95,307	10,641	35	33	2	0.33	0.35	0.19	7
2003	229,028	176,367	157,996	18,371	43	39	4	0.24	0.25	0.22	21
2004	215,648	174,231	155,980	18,251	37	36	1	0.21	0.23	0.05	23
2005	225,374	184,840	166,476	18,364	33	33	0	0.18	0.20	0.00	28
2006*	82,619	77,305	68,780	8,525	12	9	3	0.16	0.13	0.35	12
Total	**2,540,447**	**2,285,284**	**2,086,679**	**198,591**	**669**	**630**	**39**				**120**

* Through June 2006.

Figure 2. New diagnoses of HIV-1 infections, per 1,000 tested, by gender, Army National Guard, January 1990-June 2006.



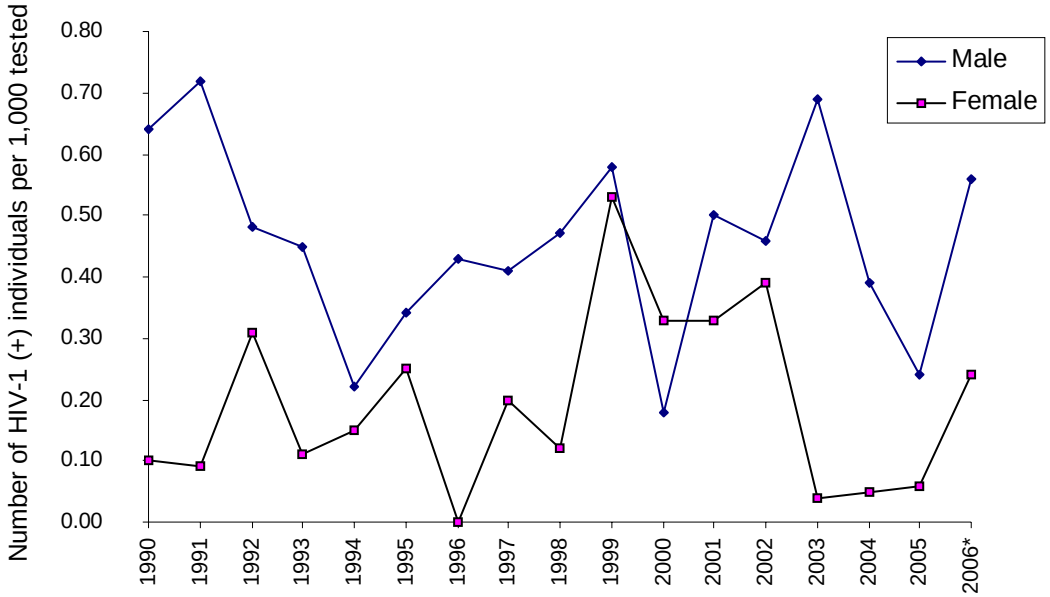
* Through 30 June 2006.

Table 3. New diagnoses of HIV-1 infections by gender, Army Reserve, January 1990-June 2006

Year	Total HIV tests	Total persons tested	Males tested	Females tested	Total new HIV-1 (+)	New HIV-1 (+) male	New HIV-1 (+) female	Overall HIV-1 (+) per 1000 tested	Male HIV-1 (+) per 1000 tested	Female HIV-1 (+) per 1000 tested	HIV-1(+) still in Reserve at year 2006
1990	176,257	153,379	122,355	31,015	81	78	3	0.53	0.64	0.10	0
1991	122,988	111,700	89,071	22,618	66	64	2	0.59	0.72	0.09	0
1992	183,633	160,504	127,900	32,598	71	61	10	0.44	0.48	0.31	2
1993	147,058	130,268	103,978	26,289	50	47	3	0.38	0.45	0.11	0
1994	137,300	122,978	96,916	26,058	25	21	4	0.20	0.22	0.15	0
1995	105,980	96,001	75,655	20,339	31	26	5	0.32	0.34	0.25	2
1996	52,005	48,052	37,471	10,578	16	16	0	0.33	0.43	0.00	2
1997	45,224	42,058	31,978	10,080	15	13	2	0.36	0.41	0.20	3
1998	37,592	35,982	27,372	8,609	14	13	1	0.39	0.47	0.12	2
1999	41,605	38,678	29,313	9,365	22	17	5	0.57	0.58	0.53	4
2000	39,007	36,220	27,186	9,034	8	5	3	0.22	0.18	0.33	3
2001	54,630	49,882	37,801	12,081	23	19	4	0.46	0.50	0.33	7
2002	62,718	56,385	43,721	12,664	25	20	5	0.44	0.46	0.39	12
2003	156,745	112,569	87,778	24,791	62	61	1	0.55	0.69	0.04	29
2004	118,005	98,275	76,842	21,433	31	30	1	0.32	0.39	0.05	22
2005	99,295	85,719	67,835	17,884	17	16	1	0.20	0.24	0.06	17
2006*	41,609	38,550	30,318	8,232	19	17	2	0.49	0.56	0.24	19
Total	**1,621,651**	**1,417,200**	**1,113,490**	**303,668**	**576**	**524**	**52**				124

* Through 30 June 2006.

Figure 3. New diagnoses of HIV-1 infections, per 1,000 tested, by gender, Army Reserve, January 1990-June 2006.



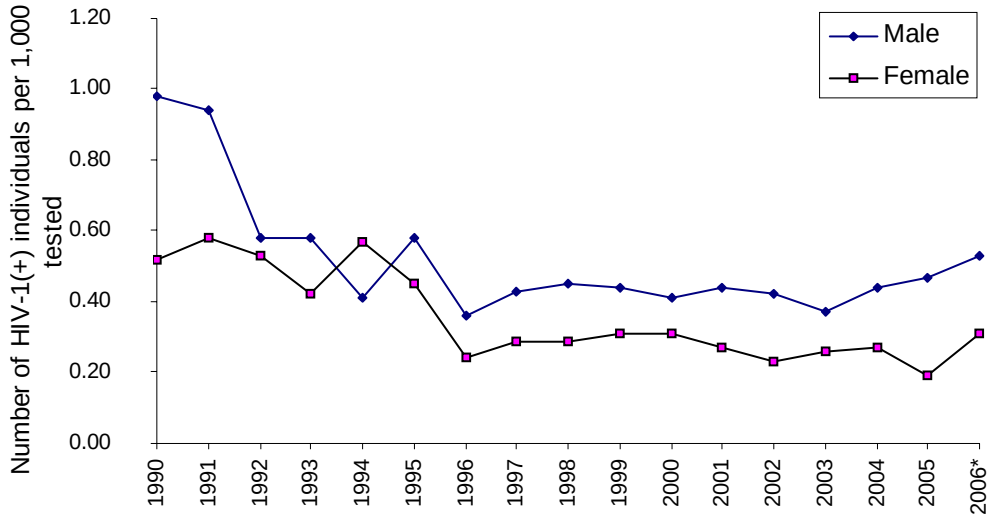
* Through 30 June 2006.

Table 4. Diagnoses of HIV-1 infections by gender, civilian applicants for U.S. military service, January 1990-June 2006

Year	Total HIV tests	Total persons tested	Male tested	Female tested	Total HIV-1(+)	HIV-1(+) male	HIV-1(+) female	Overall HIV-1 (+) per 1000 tested	Male HIV-1(+) per 1000 tested	Female HIV-1(+) per 1000 tested
1990	396,284	369,698	313,630	56,068	337	308	29	0.91	0.98	0.52
1991	374,419	345,173	295,176	49,990	306	277	29	0.89	0.94	0.58
1992	336,506	307,381	252,282	55,092	176	147	29	0.57	0.58	0.53
1993	345,895	311,362	253,961	57,401	172	148	24	0.55	0.58	0.42
1994	319,057	284,977	226,965	58,012	125	92	33	0.44	0.41	0.57
1995	288,651	243,856	193,266	50,589	135	112	23	0.55	0.58	0.45
1996	320,388	274,417	215,782	58,627	91	77	14	0.33	0.36	0.24
1997	339,644	297,719	235,910	61,806	120	102	18	0.40	0.43	0.29
1998	329,449	289,747	227,405	62,342	121	103	18	0.42	0.45	0.29
1999	357,005	312,519	245,174	67,344	129	108	21	0.41	0.44	0.31
2000	380,777	334,445	261,185	73,258	130	107	23	0.39	0.41	0.31
2001	406,415	349,064	275,540	73,522	140	120	20	0.40	0.44	0.27
2002	412,180	360,517	283,234	77,281	137	119	18	0.38	0.42	0.23
2003	360,037	315,962	253,325	62,637	109	93	16	0.34	0.37	0.26
2004	306,282	264,705	212,584	52,121	107	93	14	0.40	0.44	0.27
2005	317,183	267,439	214,626	52,813	111	101	10	0.42	0.47	0.19
2006*	169,262	142,980	114,065	28,915	69	60	9	0.48	0.53	0.31
Total	**5,759,434**	**5,071,961**	**4,074,110**	**997,818**	**2,515**	**2,167**	**348**			

* Through 30 June 2006.

Figure 4. Diagnoses of HIV-1 infections, per 1,000 tested, by gender, civilian applicants for U.S. military service, January 1990-June 2006.



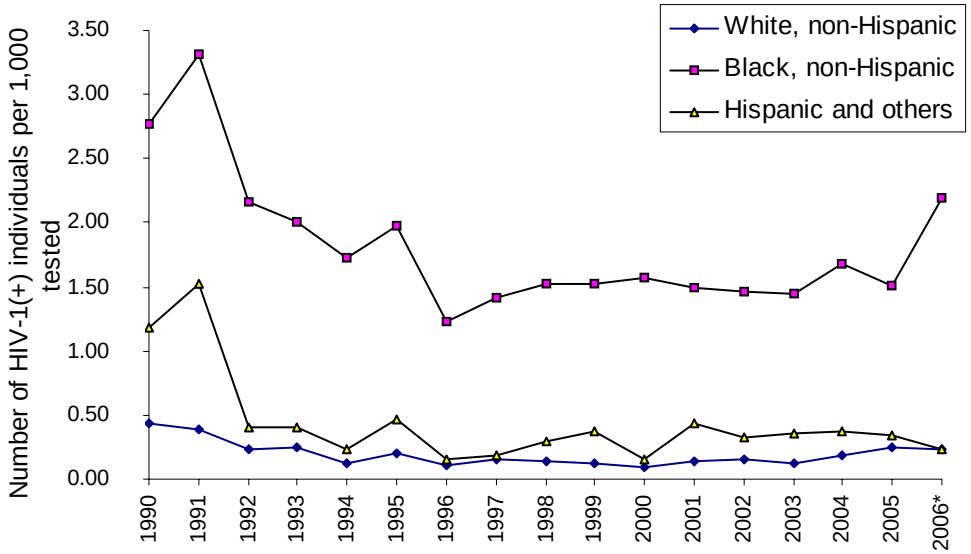
* Through 30 June 2006.

Table 5. Diagnoses of HIV-1 infections by race/ethnicity, civilian applicants for U.S. military service, January 1990-June 2006

Year	Total HIV tests	Total persons tested	White non-hispanic tested	Black non-hispanic tested	Hispanic and others tested	Total HIV-1(+)	White non-hispanic HIV-1(+)	Black non-hispanic HIV-1(+)	Hispanic and others HIV-1(+)	Overall HIV-1 (+) per 1000 tested	White non-hispanic HIV-1 (+) per 1000 tested	Black non-hispanic HIV-1 (+) per 1000 tested	Hispanic and others HIV-1 (+) per 1000 tested
1990	396,284	369,698	277,446	68,487	23,765	337	119	190	28	0.91	0.43	2.77	1.18
1991	374,419	345,173	274,096	50,098	20,979	306	108	166	32	0.89	0.39	3.31	1.53
1992	336,506	307,381	236,383	51,175	19,823	176	57	111	8	0.57	0.24	2.17	0.40
1993	345,895	311,362	238,904	52,232	20,226	172	59	105	8	0.55	0.25	2.01	0.40
1994	319,057	284,977	210,392	53,230	21,355	125	28	92	5	0.44	0.13	1.73	0.23
1995	288,651	243,856	177,674	45,058	21,124	135	36	89	10	0.55	0.20	1.98	0.47
1996	320,388	274,417	194,684	52,703	27,030	91	22	65	4	0.33	0.11	1.23	0.15
1997	339,644	297,719	208,999	57,920	30,800	120	32	82	6	0.40	0.15	1.42	0.19
1998	329,449	289,747	204,326	54,685	30,736	121	29	83	9	0.42	0.14	1.52	0.29
1999	357,005	312,519	221,026	59,020	32,473	129	27	90	12	0.41	0.12	1.52	0.37
2000	380,777	334,445	238,668	64,327	31,450	130	24	101	5	0.39	0.10	1.57	0.16
2001	406,415	349,064	258,610	60,252	30,202	140	37	90	13	0.40	0.14	1.49	0.43
2002	412,180	360,517	272,483	58,128	29,906	137	42	85	10	0.38	0.15	1.46	0.33
2003	360,037	315,962	234,838	47,867	33,257	109	28	69	12	0.34	0.12	1.44	0.36
2004	306,282	264,705	197,196	35,683	31,826	107	35	60	12	0.40	0.18	1.68	0.38
2005	317,183	267,439	203,216	33,211	31,012	111	50	50	11	0.42	0.25	1.51	0.35
2006*	169,262	142,980	108,092	18,162	16,726	69	25	40	4	0.48	0.23	2.20	0.24
Total	**5,759,434**	**5,071,961**	**3,757,033**	**862,238**	**452,690**	**2,515**	**758**	**1,568**	**189**				

* Through 30 June 2006.

Figure 5. Diagnoses of HIV-1 infections, per 1,000 tested, by race/ethnicity, civilian applicants for U.S. military service, January 1990-June 2006.



* Through 30 June 2006.

1 tests were administered to 410,419 civilian applicants for military service (Table 4). During the 18-month period, 180 applicants were diagnosed with HIV-1 infection (Table 3). In 2005, the overall prevalence of HIV-1 infection was 0.42 per 1,000 applicants; on average, one HIV-1 infection was detected per 2,858 tests (Table 3).

The overall prevalence in 2005 continued a 10-year trend of relative stability (Table 4, Figure 4). Of note, however, in 2005, the prevalence among males was the highest of the past 10 years, the prevalence among females was the lowest since 1990, and the prevalence among white non-Hispanic applicants was more than twice as high as in 2003 (Tables 4,5).

Editorial comment: The U.S. military began routine screening for HIV-1 antibodies among civilian applicants and all servicemembers more than 20 years ago. During the first rounds of routine screening of service members in the mid to late 1980s, rates of "new diagnoses" were relatively high because both longstanding (prevalent) and recently acquired (incident) infections were being detected. By 1990, however, nearly all service members had been tested at least once — as a result, screening was detecting infections acquired since an individual's last negative test, more accurately reflecting magnitudes and trends of risk of HIV-1 infection acquisition.

This summary documents long term general trends of slow declines or relative stability of HIV-1 infection prevalences in each component of soldiers. It should be noted, however, that among individuals who are repeatedly tested, prevalences of HIV-1 positive tests reflect not only the rate of infection acquisition but also testing frequencies. Thus, observed declines in prevalences of HIV-1 positive tests could be due to increasing frequencies of testing (thus, less exposure between tests) of various components and/or subgroups of soldiers. Characteristics and trends of testing frequencies across the Services are examined in detail elsewhere in this issue (pages 9-16).

Finally, the reasons for recent increases in prevalences of HIV-1 infection among male and white, non-Hispanic applicants are unclear. Prevalences and trends will be closely monitored to assess long-term significance.

Data analysis by Jackson Gustave, MPH, Analysis Group, Army Medical Surveillance Activity.

Table 6. HIV-1 tests, by indication, U.S. Army, 2005

Test indication	Active Duty	National Guard	Reserve	Total
Clinical (including sexually transmitted diseases)	28,531	1,931	1,906	32,368
Routine screening	211,252	78,267	29,783	319,302
Physical examination	66,876	74,651	40,041	181,568
Other/unknown	127,577	70,525	27,565	225,667
Total	**434,236**	**225,374**	**99,295**	**758,905**

Seroprevalences and Incidence Rates of HIV-1 in relation to the Frequency of Testing, Active Component, U.S. Army, 2000-2005

For more than 20 years, routine periodic testing for HIV-1 infection has been conducted among U.S. military members.[1,2] However, throughout the period, the frequencies of mandatory testing have varied across the Services and components.[1] In 2002, the Deputy Assistant Secretary of Defense for Clinical and Program Policy asked the Armed Forces Epidemiological Board (AFEB) to "recommend an appropriate interval for HIV testing, if the Board feels interval testing has value."[3] After reviewing recent rates and trends of HIV-1 infection among U.S. military members, the objectives of routine testing, the natural progression of disease, and indications for treatment, the AFEB suggested that, in the absence of other specific indications (e.g., clinical, self-referral), "an appropriate and acceptable interval for testing is every two years."[2,3] In March 2004, DoD policy was changed to reflect the AFEB recommendation.[4]

For many years, U.S. Army policy has required routine HIV-1 testing of all active component soldiers "at least every two years."[1,2,5] However, routine testing coupled with testing based on individual indications (e.g. clinical suspicion, entry into alcohol or drug treatment, or personal request) result in significant variability in the frequency of testing of individual soldiers.[1] This analysis was conducted to describe the current distribution and trends of time intervals between tests for HIV-1 among active component soldiers, document prevalences of positive tests for HIV-1 in relation to screening test intervals, and estimate incidence rates of HIV-1 seroconversion in relation to the frequency of testing.

Methods: The surveillance period was 1 January 2000 through 31 December 2005. The surveillance population included all individuals who served in the active component of the U.S. Army any time during the surveillance period. All data were derived from the Defense Medical Surveillance System.

For each HIV-1 test during each year of the period, the number of days since the preceding test of the same individual was calculated ("test interval"). All HIV-1 antibody tests following initial positive tests of individuals were excluded. All tests during each calendar year were then sorted by test interval. Trends in testing frequency were assessed based on the means of test intervals across calendar years.

For each calendar year, the "positive test prevalence" (HIV-1 positive tests divided by total tests), "seroprevalence" (HIV-1 positive tests divided by total individuals tested), and the incidence ("seroconversion") rate (HIV-1 positive tests divided by total person-time included in all test intervals) were calculated overall and in relation to test interval lengths. The Poisson distribution was used to calculate 95% confidence intervals around observed prevalences and incidence rates.

Results: During the 6-year surveillance period, nearly 2.6 million HIV-1 tests were conducted among active component soldiers. During the period, the mean of test intervals varied from 1.02 years (in 2003) to 1.23 years (in 2001). In general, mean test intervals were shorter after 2001 compared to before (Figure 1).

During the period, annual seroprevalences ranged from 0.15 (in 2004) to 0.20 (in 2001) per 1,000 persons tested (Figure 1). The overall positive test prevalence was 0.13 per 1,000 tests (range, by year: 0.11-0.15 per 1,000 tests); and the overall seroconversion rate was 0.12 per 1,000 person-years (range, by year: 0.11-0.12 per 1,000 person-years) (Figure 1).

In each year of the period, the seroprevalence was higher than the positive test prevalence, and the positive test prevalence was higher than the seroconversion rate — thus, in each year of the period, the positive test prevalence approximated the seroconversion rate better than the seroprevalence (Figure 1). As expected, differences between positive test prevalences and seroconversion rates were smallest during years when mean test intervals were closest to one year (Figure 1). Of note, from year to year, seroconversion rates varied much less than either seroprevalences or positive test prevalences (Figure 1).

Finally, seroconversion rates were highest by far among soldiers who were tested within 90 days of a previous test; and in general, seroconversion rates declined as intervals between tests lengthened (Figure

2). Of note the percentage of HIV tests done for sexually transmitted disease evaluations/other clinical indications monotonically declined from 6.9% among those tested within 90 days to 1.2% among those tested within four years of a prior test (data not shown). In contrast, as expected positive test prevalences increased as intervals between tests lengthened (Figure 2).

Editorial comment: This analysis documents that, among soldiers in the active component of the U.S. Army, the seroconversion rate (which reflects the HIV-1 infection rate) tends to be higher among those who are tested more often. Specifically, during the period of this surveillance, the seroconversion rate was highest among soldiers who were tested within 90 days of a previous test and was lowest among those who were out of compliance with the 2-year testing policy. The finding must be interpreted cautiously because rates for this surveillance were not adjusted for factors known to be associated with HIV-1 infection risk among soldiers, e.g., age, gender, race/ethnicity.[1,6] Still, the finding suggests that soldiers who have clinical or other indicators of potential high risk (e.g., sexually transmitted diseases) and/or are aware of their own high risk are being tested more frequently than others. On the other hand, there is no evidence that soldiers that know or suspect their own high risk are systematically avoiding or delaying testing.

As expected, seroprevalences (in contrast to seroconversion rates) among soldiers increase as intervals between serial tests lengthen. Given relatively stable rates of HIV-1 infection in a periodically screened population, such as the U.S. Army, the number of undetected infections — hence, the seroprevalence — inevitably increases as the time between tests lengthens. Thus, in general, seroprevalences among U.S. military members – and the efficiency (e.g., new infections detected per 1,000 tests conducted) of routine, periodic testing among them – vary in inverse relation to the frequency of testing. In summary, given a relatively stable infection rate in a serially screened population, the more frequent the testing, the lower the "yield" (i.e., new positives per 1,000 tests).

Current policy requires an HIV-1 test within two years of overseas deployment. Such a policy allows for "2-years worth" of HIV-1 infections to be present (and undetected) in deploying forces. Another report in this *MSMR* documents that, since 2001, more than 90% and 98% of deployers to southwest Asia have had HIV-1 tests within 1 and 2 years of their deployments, respectively. Clearly, HIV-1 testing occurs much more frequently than required by policy — overall as well as among overseas deployers. The costs associated with more frequent testing than required by policy are apparent (e.g., more tests are done per new case detected). The benefits of more frequent testing include fewer deployers with undetected HIV-1 infections.

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

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Figure 1. HIV-1 seroprevalence, test prevalence, seroconversion rate, and frequency of testing, active component, U.S. Army, 2000-2005.

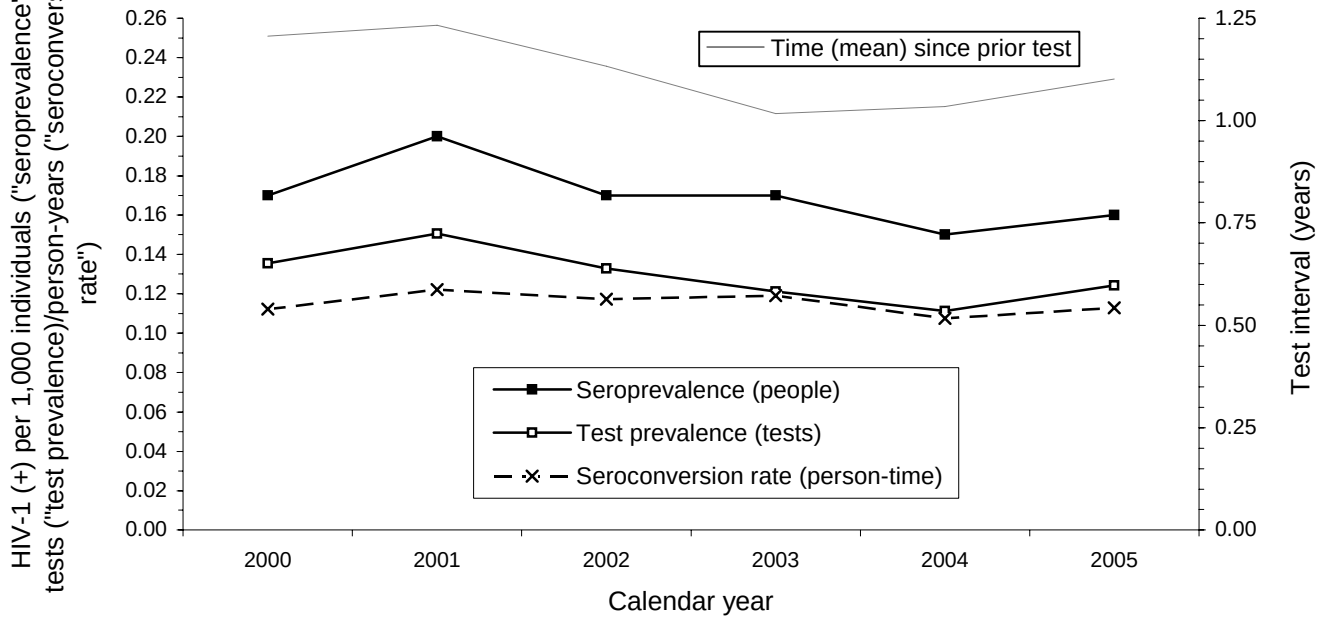
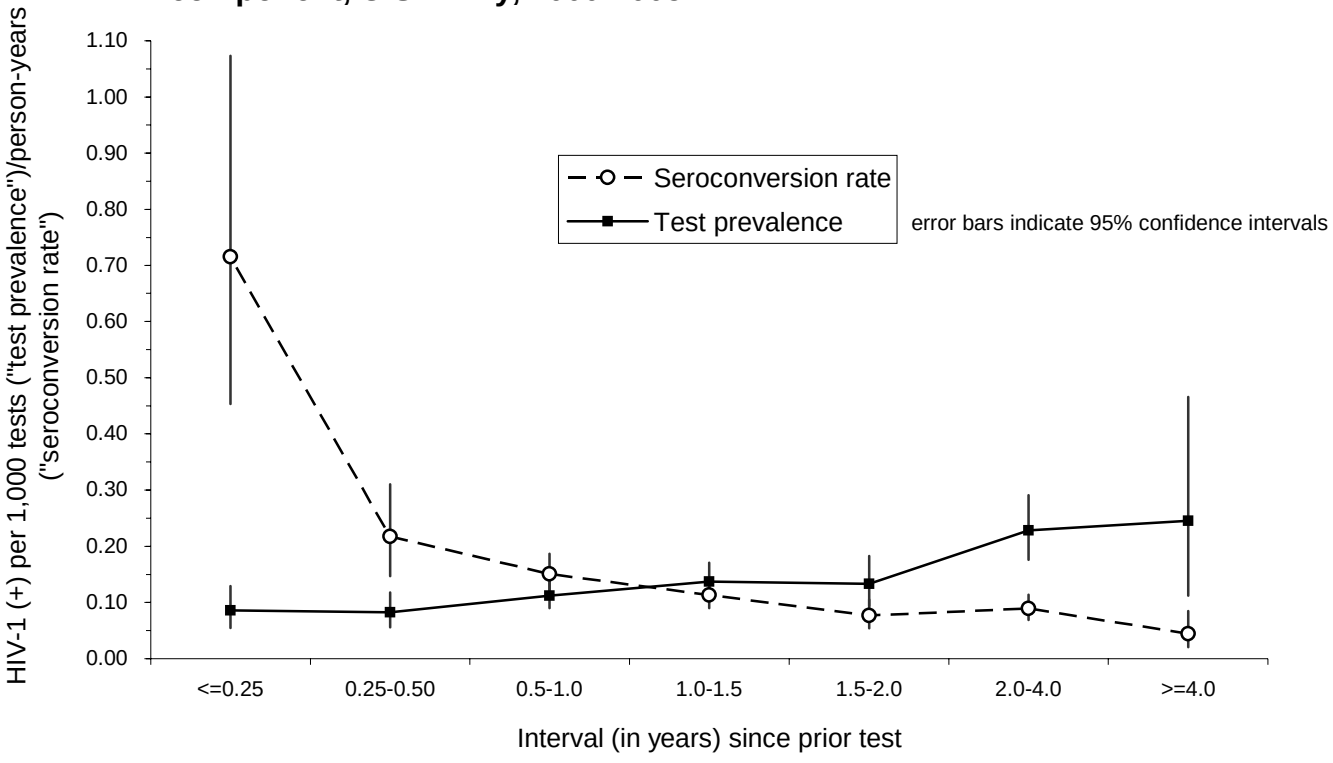


Figure 2. HIV-1 seroconversion rate and test prevalence, by test interval length, active component, U.S. Army, 2000-2005.



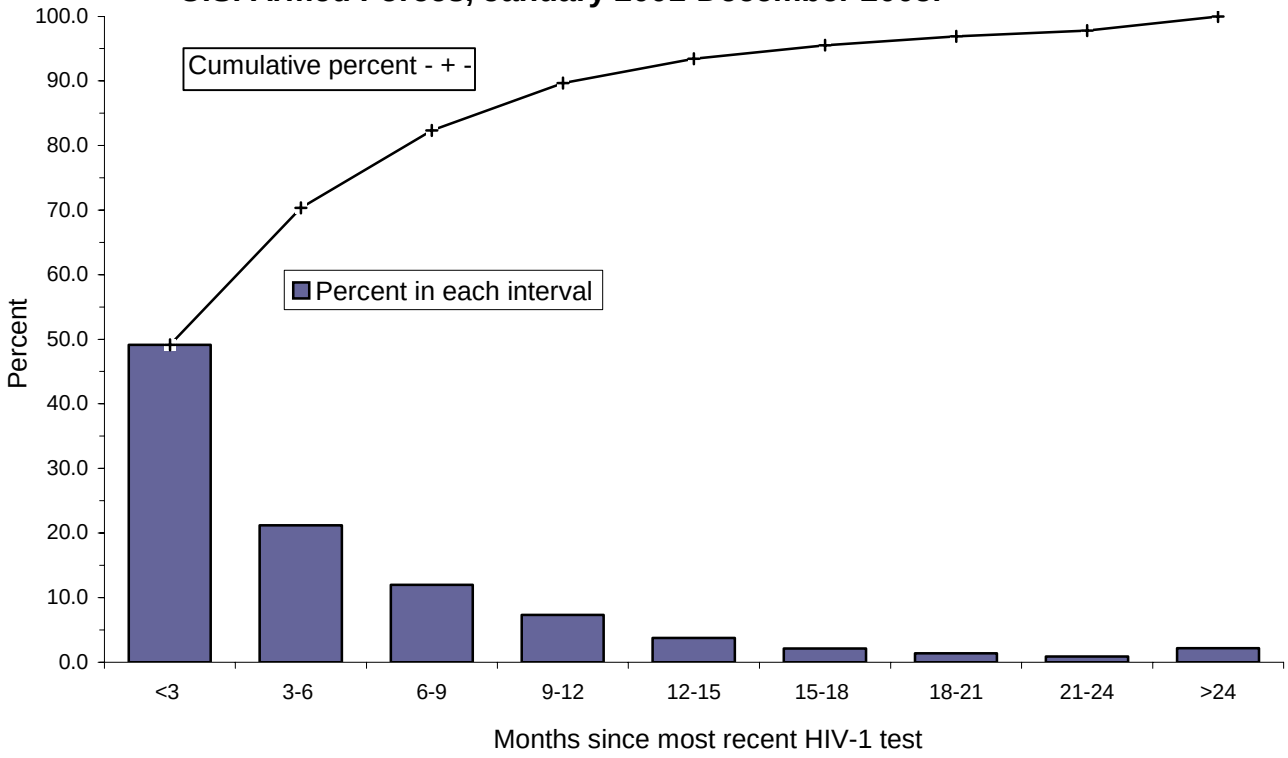
Timing of Prior HIV-1 Tests in Relation to Deployments to Southwest Asia, U.S. Armed Forces, 2001-2005

For more than 20 years, the U.S. military has conducted routine periodic testing for antibodies to HIV-1 among its members. Reasons for the testing program include protecting the battlefield blood supply, protecting HIV-1 infected individuals from infection risks associated with military operations in remote areas of developing countries, and assuring definitive medical care for all HIV-1 infected individuals.[1] In relation to deployments, since March 2004, Department of Defense policy has required the collection and archiving in the DoD Serum Repository of a predeployment serum sample within one year and an HIV-1 test within 2 years of all overseas deployments.[2]

Currently, the U.S. Air Force collects predeployment serum samples for archiving (without testing them for antibodies to HIV-1) in accordance with current policy.[2] The other Services test all serum samples collected prior to deployment for HIV-1 and archive all specimens tested for HIV-1 regardless of the reasons for collection.

For this report, distributions of times between overseas deployments to southwest Asia and most recent prior HIV-1 tests of U.S. service members were summarized in relation to military and demographic characteristics.

Figure 1. Percentages of deployers, by time from most recent HIV-1 test to date of deployment to southwest Asia, U.S. Armed Forces, January 2001-December 2005.



Methods. All data used in analyses were derived from the Defense Medical Surveillance System. The surveillance period was 1 January 2001 through 31 December 2005. The surveillance population included all individuals who served in the U.S. Armed Forces any time during the surveillance period.

All deployments to Southwest Asia (including Afghanistan) during the surveillance period were identified from rosters maintained by the Services (and routinely integrated in the Defense Medical Surveillance System). All HIV-1 antibody tests and the serum samples of deployers were then identified.

For each deployment during the surveillance period, the time in days between each deployer's last HIV-1 test prior to deployment (including as an applicant for military service, if appropriate) and the reported date of deployment was calculated. For each calendar year, the numbers and percents of deployers with HIV-1 tests at various times prior to deployment were calculated overall, by Service, and in various subgroups.

Results. During the 5-year period, there were approximately 1.25 million deployments of U.S. service members to Southwest Asia, and the mean time from the last HIV-1 test to the date of deployment was 161 days. Overall, approximately 90% of deployers had HIV-1 tests within one year — and 98% within two years — of their reported deployment dates. Of interest, approximately one of 20 (4.8%) deployers had an HIV-1 test within one week (data not shown) and nearly half (49.2%) within 90 days of deploying (Figure 1).

In each of the Services, during each year of the period, at least 94% of deployers had an HIV-1 test within 2 years (Figure 2-5). With the exception of the Navy in 2001 (71%) (Figure 5), percentages of deployers with HIV-1 tests within one year were relatively high, did not significantly vary over time, and were similar across the Services (range, per year, cumulative % with HIV-1 tests within one year of deploying: Army: 84-94%; Air Force: 86-90%; Marine Corps: 84-89%; Navy: 89-92%) (Figure 2-5). Of note, during the period, the mean interval between the last pre-deployment HIV-1 test and the date of deployment declined in each Service (Figure 6).

Editorial comment: This report documents that very high percentages of deployers to Southwest Asia have had HIV-1 tests within two years (as specified in current DoD policy).[1] Also, since 2001, average times between most recent HIV-1 tests and deployment dates have significantly declined. These findings are important because HIV-1 infection risk continues among deployers between the time of their last HIV-1 tests and their deployment dates. Thus, on a population basis, the greater the cumulative time of exposure to HIV-1 infection risk after testing and before deployment, the more individuals with undetected HIV-1 infections will deploy. Because of low HIV-1 infection rates among U.S. military members in general and because times between HIV-1 tests and deployment dates have been declining, it is likely that that there have been few and continuously decreasing numbers of deployers with HIV-1 infections.

Data analysis by Pablo Aliaga, MS, Analysis Group, Army Medical Surviellance Activity

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2. Assistant Secretary of Defense (Health Affairs). Memorandum for the Assistant Secretaries (Manpower and Reserve Affairs) of the Army, Navy , and Air Force, March 2004. Subject: Policy memorandum – human immunodeficiency virus interval testing. HA policy: 04-007. Accessed on 11 September 2006 at: < http://www.ha.osd.mil/policies/2004/04-007.pdf >.

Figure 2. Cumulative percentages of deployers, by time from most recent HIV-1 test to date of deployment to southwest Asia, by year, U.S. Army, 2001-2005.

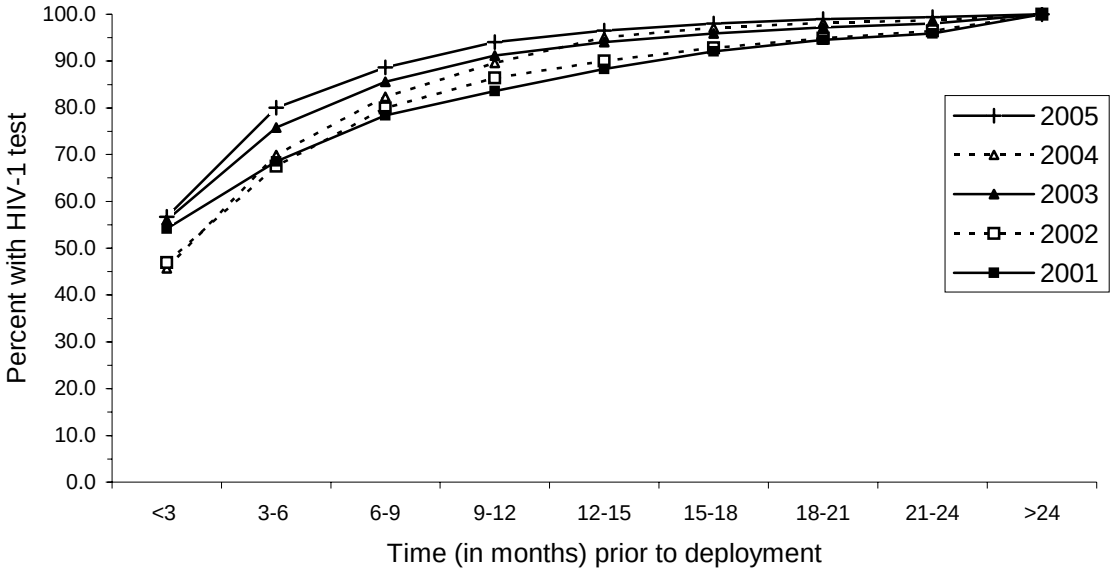


Figure 3. Cumulative percentages of deployers, by time from most recent HIV-1 test to date of deployment to southwest Asia, by year, U.S. Air Force, 2001-2005.

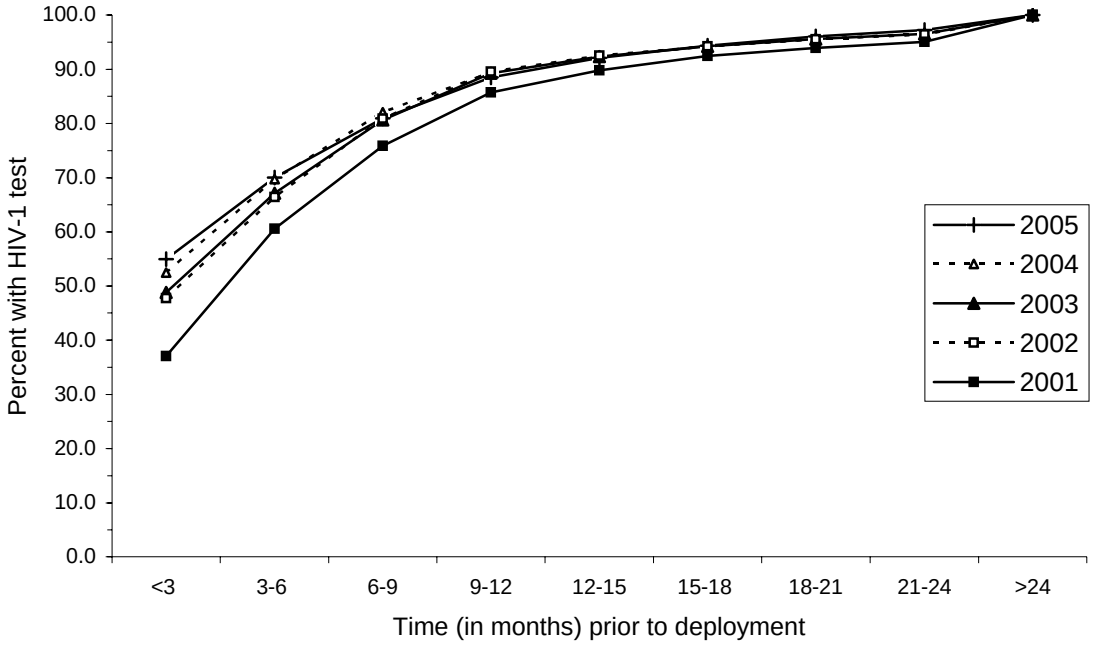


Figure 4. Cumulative percentages of deployers, by time from most recent HIV-1 test to date of deployment to southwest Asia, by year, U.S. Marine Corps, 2001-2005.

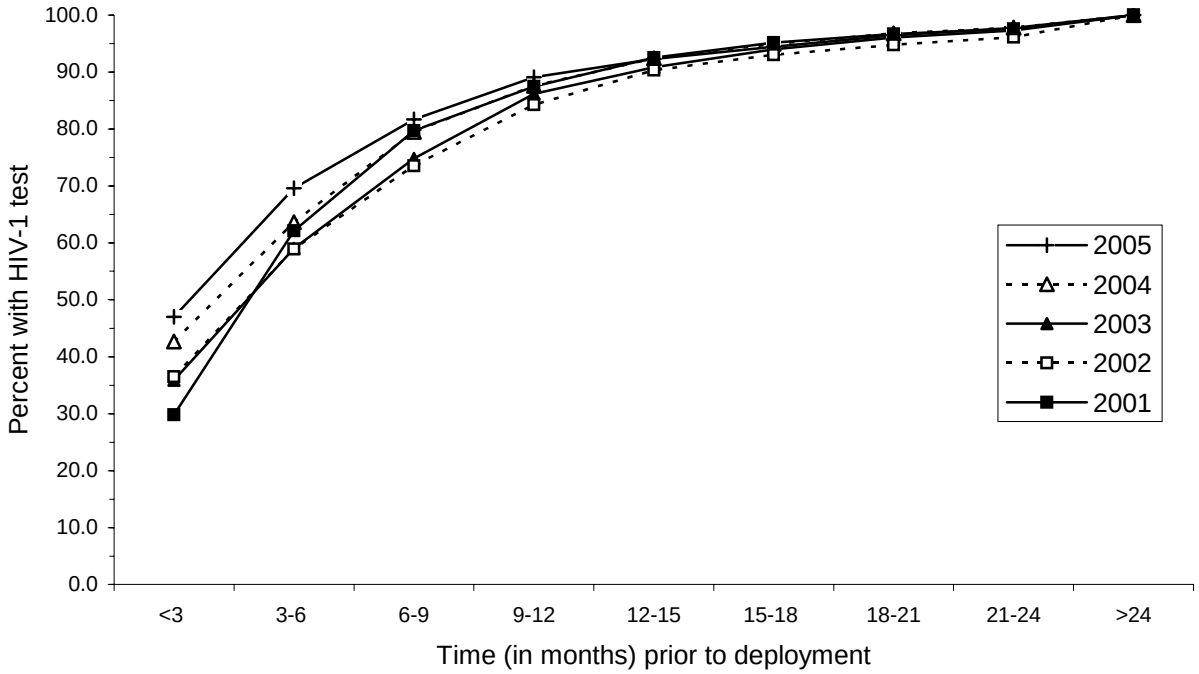


Figure 5. Cumulative percentages of deployers, by time from most recent HIV-1 test to date of deployment to southwest Asia, by year, U.S. Navy, 2001-2005.

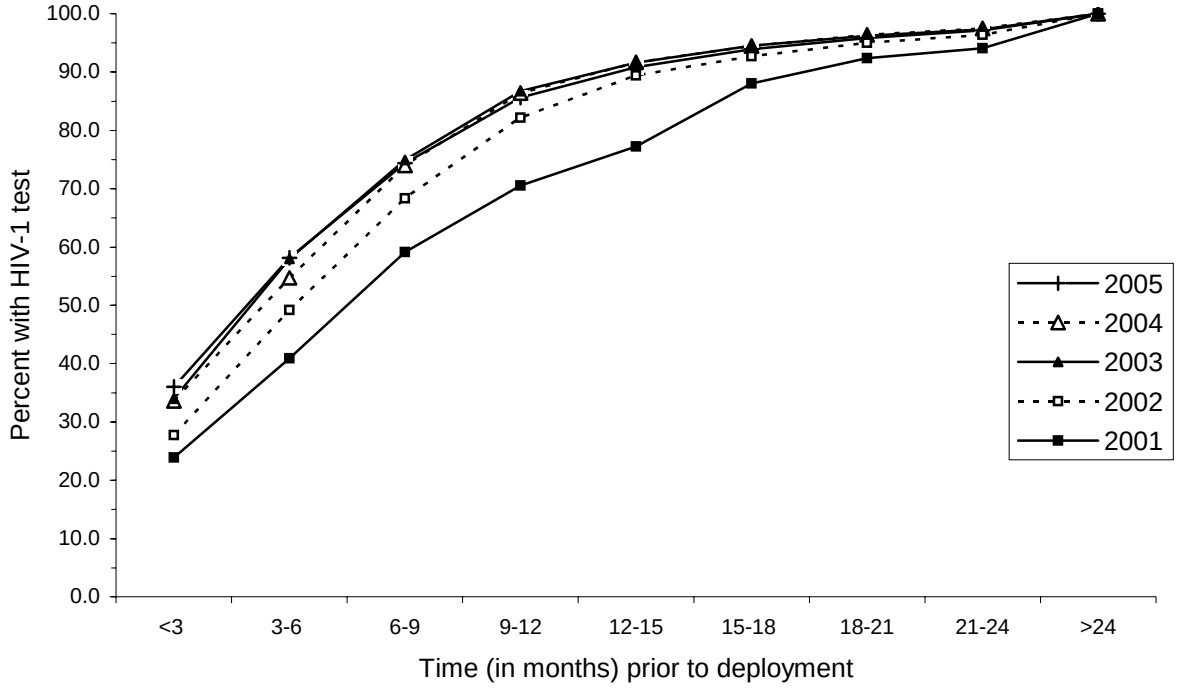
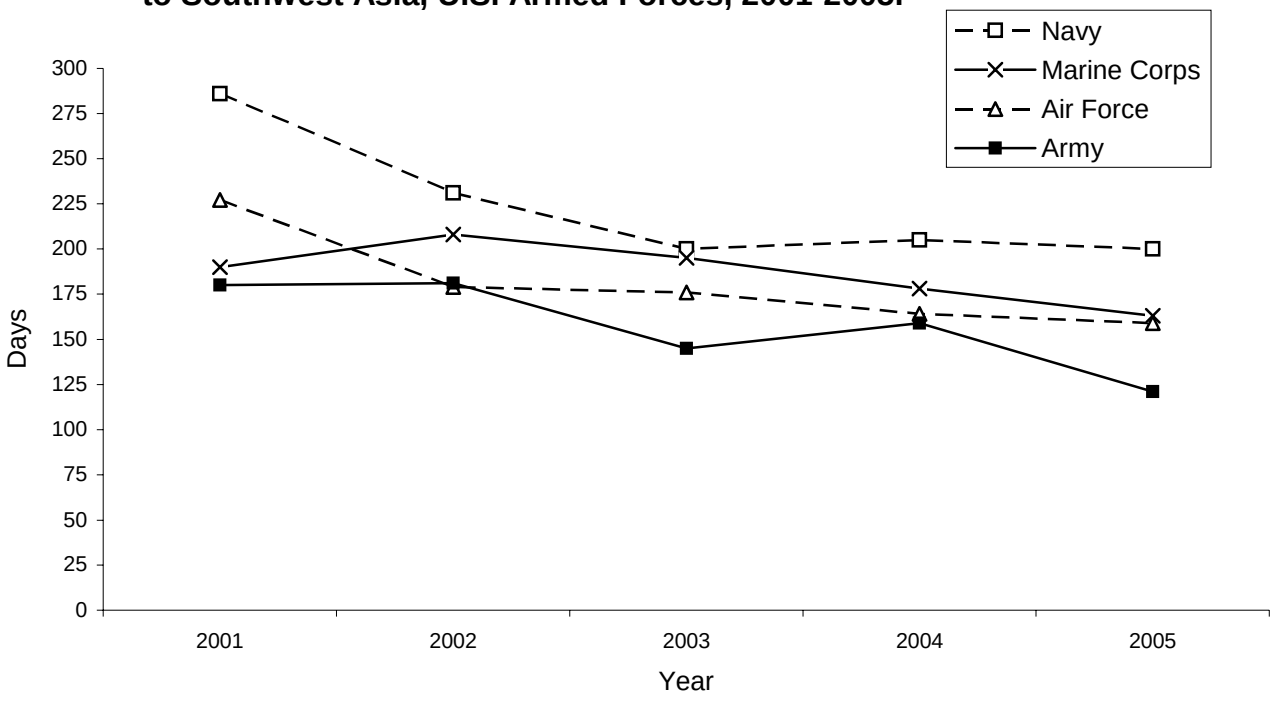
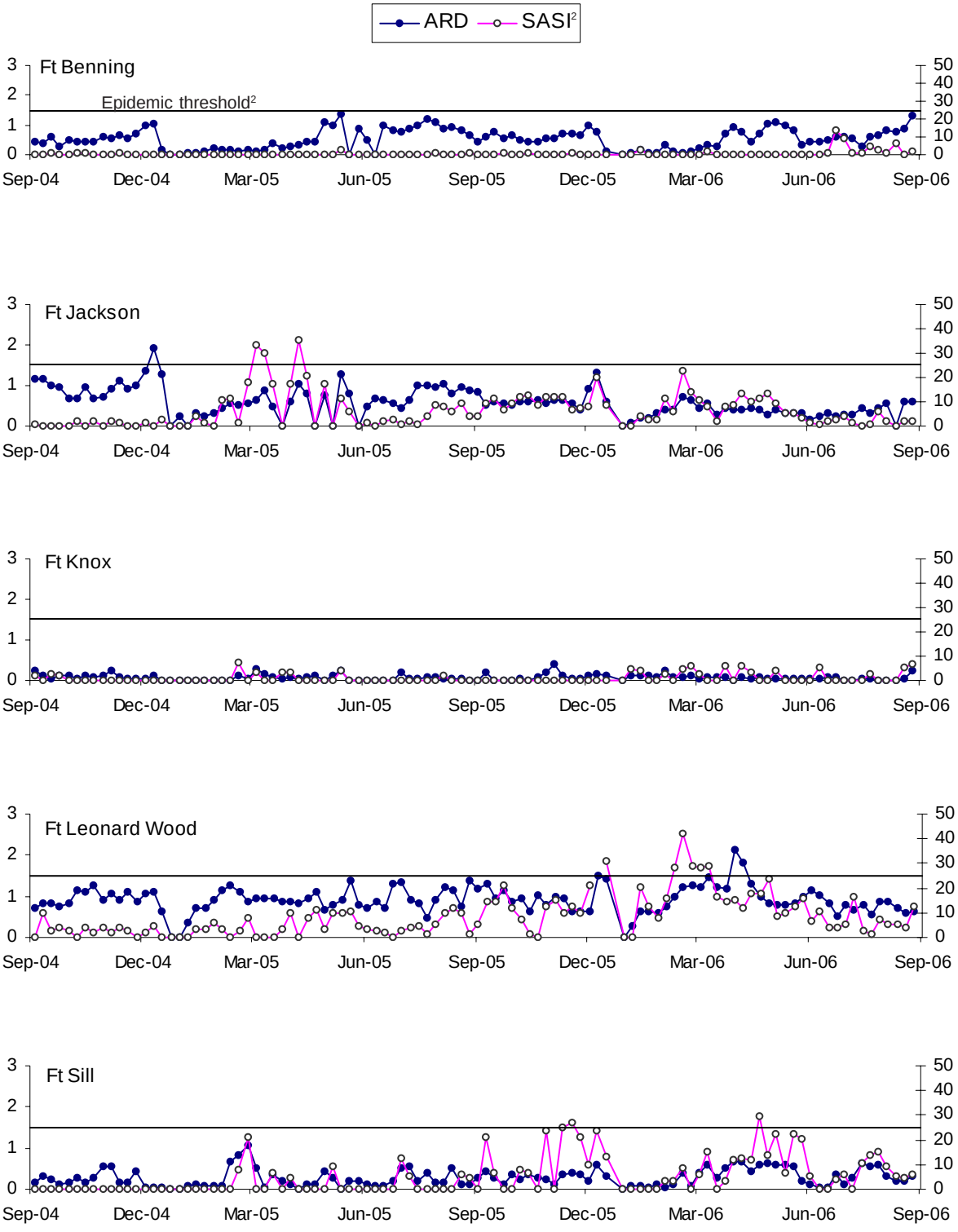


Figure 6. Mean time (in days) between most recent HIV-1 test and date of deployment to Southwest Asia, U.S. Armed Forces, 2001-2005.



Acute respiratory disease (ARD) and streptococcal pharyngitis (SASI), Army basic training centers, by week through August 31, 2006



[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 consectutive weeks indicates an "epidemic"

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

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

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

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

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

Results: From 1 January 2003 to 31 August 2006, 1,404,915 pre-deployment health assessments and 1,395,153 post-deployment health assessments were completed at field sites, shipped to AMSA, and integrated in the DMSS database (Table 1).

In general, the distributions of self-assessments of "overall health" were similar among pre- and post-deployment form respondents (Figure 1). For example, both prior to and after deployment, the most frequent descriptor of "overall health" was "very good." Of note, however, relatively more pre- (33%) than post- (24%) deployment respondents assessed their overall health as "excellent"; while more post- (41%) than pre- (25%) deployment respondents assessed their overall health as "good," "fair," or "poor" (Figure 1).

Among servicemembers (n=710,037) who completed both a pre- and a post-deployment health assessment, fewer than half (45%) chose the same descriptor of their overall health before and after deploying (Figures 2, 3). Of those (n=392,900) who changed their assessments from pre- to post-deployment, three-fourths (75%) changed by a single category (on a five category scale) (Figure 3); and of those who changed by more than one category, 4.7-times as many indicated a decrement in overall health (n=80,183; 11.3% of all respondents) as an improvement (n=17,224; 2.4% of all respondents) (Figure 3).

On post-deployment forms, 22% of active and 40% of Reserve component respondents reported "medical/dental problems" during deployment (Table 2). Among active component respondents, "medical/dental problems" were more frequently reported by soldiers (30%) and Marines (20%) than by members of the other Services (12%). Among Reservists, members of the Air Force reported "medical/dental problems" much less often than members of the other Services (Table 2).

Approximately 4% and 6% of active and Reserve component respondents, respectively, reported "mental health concerns." "Mental health concerns" were reported relatively more frequently among soldiers (active: 7%; Reserve: 8%) than members of the other Services (Table 2). Post-deployment forms from approximately one-fifth (18%) of active component and one-fourth (24%) of Reserve component members documented that

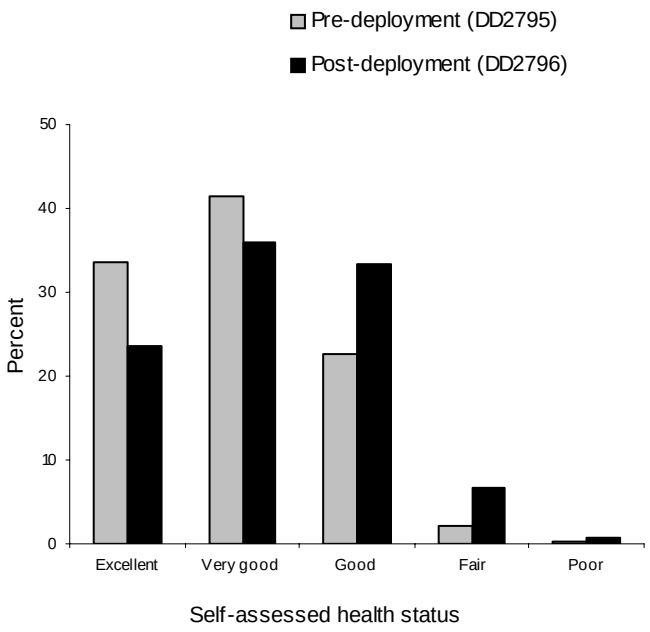
Table 1. Total pre-deployment and post-deployment health assessments, by month and year, U.S. Armed Forces, January 2003-August 2006

	Pre-deployment		Post-deployment	
	No.	%	No.	%
Total	**1,404,915**	**100.0**	**1,395,153**	**100.0**
2003				
January	69,390	4.9	6,221	0.4
February	110,571	7.9	5,077	0.4
March	69,855	5.0	6,755	0.5
April	37,599	2.7	19,350	1.4
May	12,885	0.9	92,882	6.7
June	14,416	1.0	65,381	4.7
July	18,062	1.3	52,902	3.8
August	16,513	1.2	35,154	2.5
September	12,799	0.9	32,447	2.3
October	24,170	1.7	27,047	1.9
November	19,703	1.4	21,542	1.5
December	36,157	2.6	22,242	1.6
2004				
January	70,226	5.0	39,999	2.9
February	39,203	2.8	32,284	2.3
March	22,843	1.6	66,654	4.8
April	19,947	1.4	44,505	3.2
May	27,798	2.0	17,911	1.3
June	24,666	1.8	28,404	2.0
July	22,805	1.6	24,342	1.7
August	34,302	2.4	23,012	1.6
September	32,207	2.3	24,396	1.7
October	35,652	2.5	15,865	1.1
November	36,237	2.6	22,085	1.6
December	38,610	2.7	27,069	1.9
2005				
January	34,686	2.5	56,090	4.0
February	24,763	1.8	70,009	5.0
March	20,884	1.5	53,526	3.8
April	26,987	1.9	19,121	1.4
May	18,773	1.3	21,094	1.5
June	25,591	1.8	19,384	1.4
July	21,628	1.5	17,744	1.3
August	47,310	3.4	29,691	2.1
September	34,498	2.5	40,141	2.9
October	37,197	2.6	37,651	2.7
November	35,213	2.5	38,805	2.8
December	21,237	1.5	56,839	4.1
2006				
January	29,821	2.1	37,874	2.7
February	22,188	1.6	18,842	1.4
March	20,683	1.5	20,437	1.5
April	18,531	1.3	17,943	1.3
May	23,849	1.7	22,806	1.6
June	30,096	2.1	16,162	1.2
July	32,263	2.3	19,968	1.4
August	32,101	2.3	27,500	2.0

"referrals" were indicated (Table 2); and 87% and 85% of all active and Reserve component respondents, respectively, had hospitalizations and/or medical encounters within 6 months after documented post-deployment referrals (Table 2).

During interviews by health care providers, approximately 16% of respondents expressed concerns about possible exposures or events during the deployment that they felt may affect their health ("exposure concerns") (Table 3). The proportion of respondents who reported exposure concerns significantly varied from month to month. In general, in the active components, rates of exposure concerns increased through calendar year 2003 and have been relatively stable (range: 6-15%) since the spring of 2004 (Figure 4). In the Reserve components, rates of exposure concerns increased through the spring of 2004 and have been relatively high (range: 16-33%) since then (Figure 4). Reports of exposure concerns have been generally higher in the Army and Marine Corps compared to the other services and in the Reserve compared to the active component (Table 3). Finally, prevalences of exposure concerns monotonically increase with age (Tables 3, 4).

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



Editorial comment: Since January 2003, approximately 75% of U.S. servicemembers have assessed their overall health as "very good" or "excellent" when they are mobilized and/or prior to deploying overseas; and approximately 60% have assessed their overall health as "very good" or "excellent" at the end of their deployments. Most of the changes in assessments of overall health from pre- to post-deployment have been relatively minor (i.e., one category on a 5-category scale). However, approximately one of nine post-deployers have indicated relatively significant declines (i.e., two or more categories) in their overall health from pre- to post-deployment. The findings are attributable at least in part to the extreme physical and psychological stresses associated with mobilization, overseas deployment, and harsh and dangerous living and working conditions.[14,15]

The deployment health assessment process is specifically designed to identify, assess, and follow-up as necessary all servicemembers with concerns regarding their health and/or deployment-related exposures. Overall, for example, approximately one-fifth of all returning soldiers had "referral indications" documented on post-deployment health assessments; and of those, most had documented outpatient visits and/or hospitalizations within 6 months after they returned.

Of interest, "exposure concerns" among post-deploying respondents significantly vary from month to month. Since the beginning of 2004, exposure concerns have been consistently higher among Reserve compared to active component members. Among both active and Reserve component members, exposure concerns significantly increase with age, and in both components, servicemembers older than 40 are approximately twice as likely as those younger than 20 to report exposure concerns. In every age group, however, Reservists are much more likely to report exposure concerns than their active component counterparts.

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

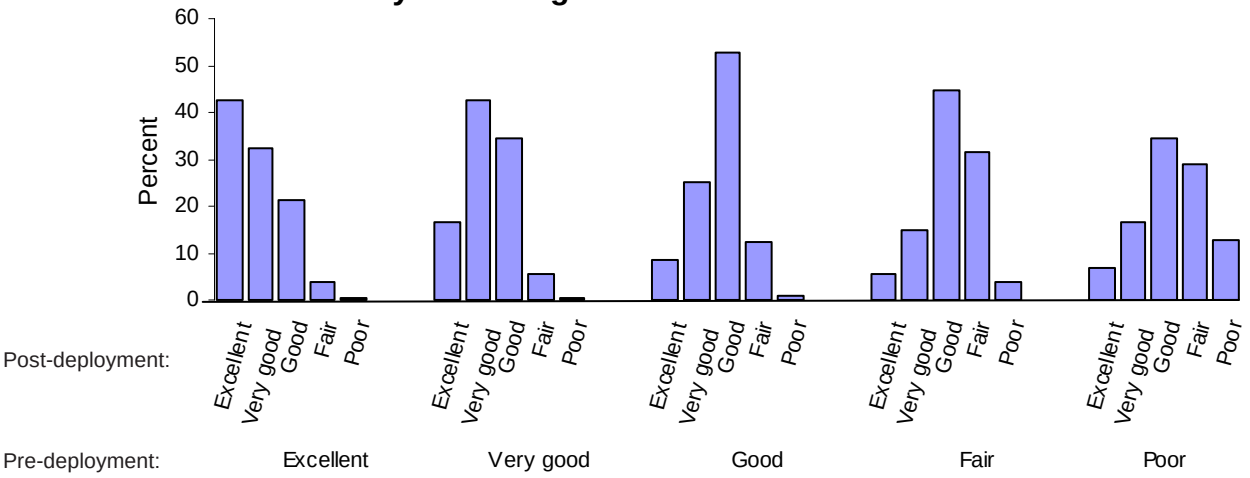


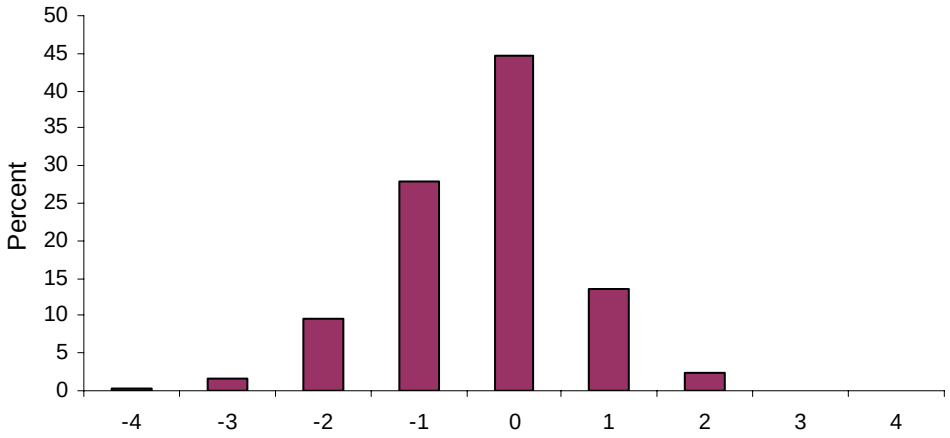
Table 2. Responses to selected questions from post-deployment forms (DD2796) by service and component, U.S. Armed Forces, January 2003-August 2006

	Army	Navy	Air Force	Marines	Total
Active component					
SMs with DD 2796 in DMSS	**303,152**	**102,378**	**124,356**	**90,140**	**620,026**
Electronic version	80%	7%	73%	14%	57%
General health ("fair" or "poor")	9%	5%	2%	6%	6%
Medical/dental problems during deploy	30%	12%	12%	20%	22%
Currently on profile	11%	2%	2%	3%	6%
Mental health concerns	7%	3%	1%	2%	4%
Exposure concerns	17%	5%	4%	11%	11%
Health concerns	13%	6%	5%	9%	10%
Referral indicated	26%	7%	10%	13%	18%
Med. visit following referral[1]	92%	72%	89%	65%	87%
Post deployment serum[2]	88%	82%	86%	88%	87%
Reserve component					
SMs with DD 2796 in DMSS	**279,334**	**16,707**	**45,751**	**19,775**	**361,567**
Electronic version	73%	14%	63%	17%	66%
General health ("fair" or "poor")	11%	6%	2%	8%	10%
Medical/dental problems during deploy	45%	36%	15%	35%	40%
Currently on profile	14%	4%	2%	3%	12%
Mental health concerns	8%	3%	1%	3%	6%
Exposure concerns	25%	20%	8%	25%	23%
Health concerns	22%	21%	11%	22%	21%
Referral indicated	27%	19%	11%	23%	24%
Med. visit following referral[1]	89%	79%	57%	56%	85%
Post deployment serum[2]	93%	91%	69%	89%	90%

[1] Inpatient or outpatient visit within 6 months after referral.

[2] Only calculated for DD2796 completed since 1 June 2003.

Figure 3. Distribution of changes in self-assessed health status as reported on pre- and post-deployment forms, U.S. Armed Forces, January 2003-August 2006.



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

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

	Total[1]	Exposure concerns	% with exposure concerns
Total	**976,014**	**153,499**	**15.7**
Component			
Active	616,622	70,652	11.5
Reserve	359,392	82,847	23.1
Service			
Army	580,057	121,995	21.0
Navy	117,483	8,026	6.8
Air Force	169,514	9,039	5.3
Marine Corps	108,960	14,439	13.3
Age (years)			
<20	24,444	1,942	7.9
20-29	518,486	67,328	13.0
30-39	269,738	47,170	17.5
>39	163,330	37,059	22.7
Gender			
Men	866,210	134,454	15.5
Women	109,803	19,045	17.3
Race/ethnicity			
Black	167,513	28,675	17.1
Hispanic	95,957	16,409	17.1
Other	2,391	249	10.4
White	641,666	97,382	15.2
Grade			
Enlisted	848,836	132,070	15.6
Officer	127,109	21,428	16.9

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

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

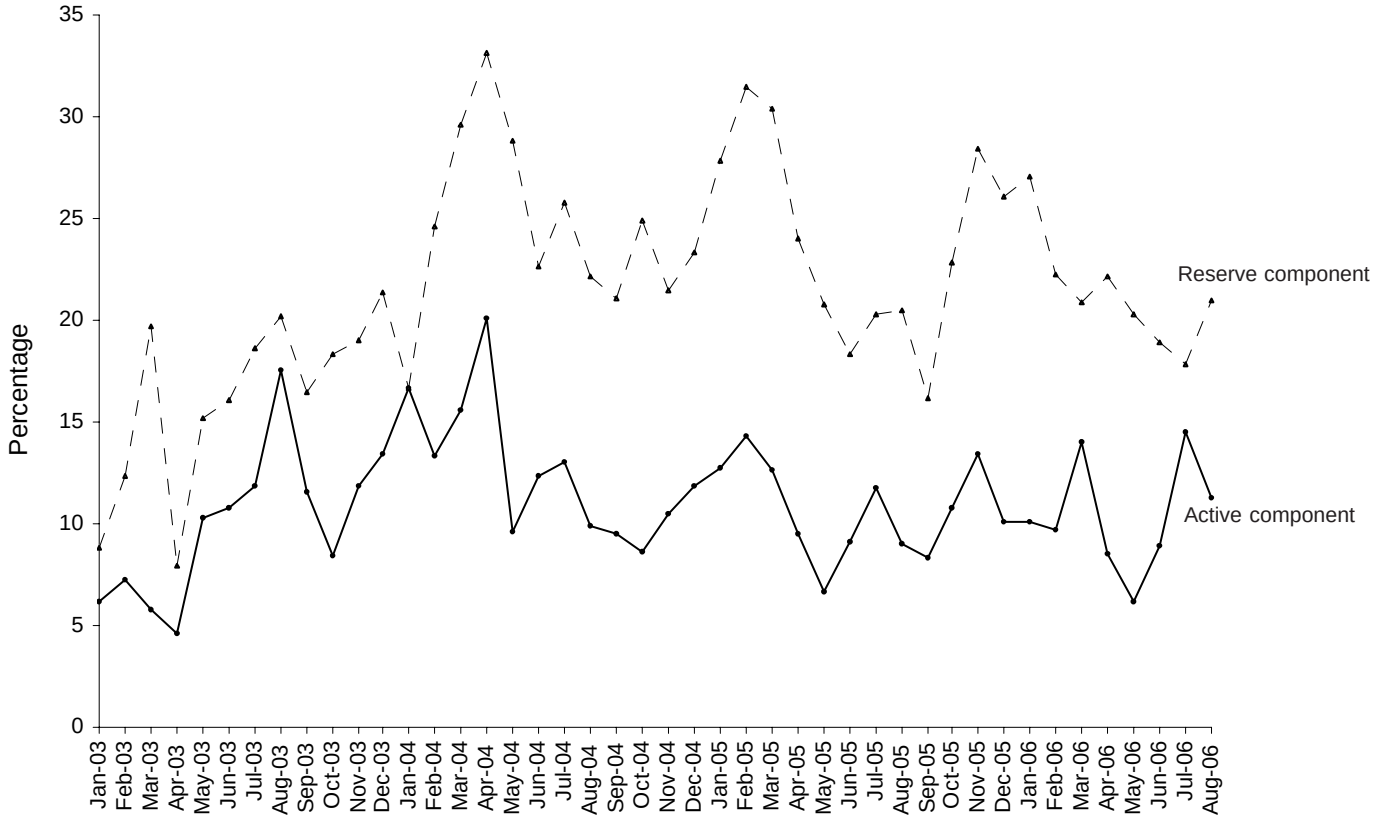
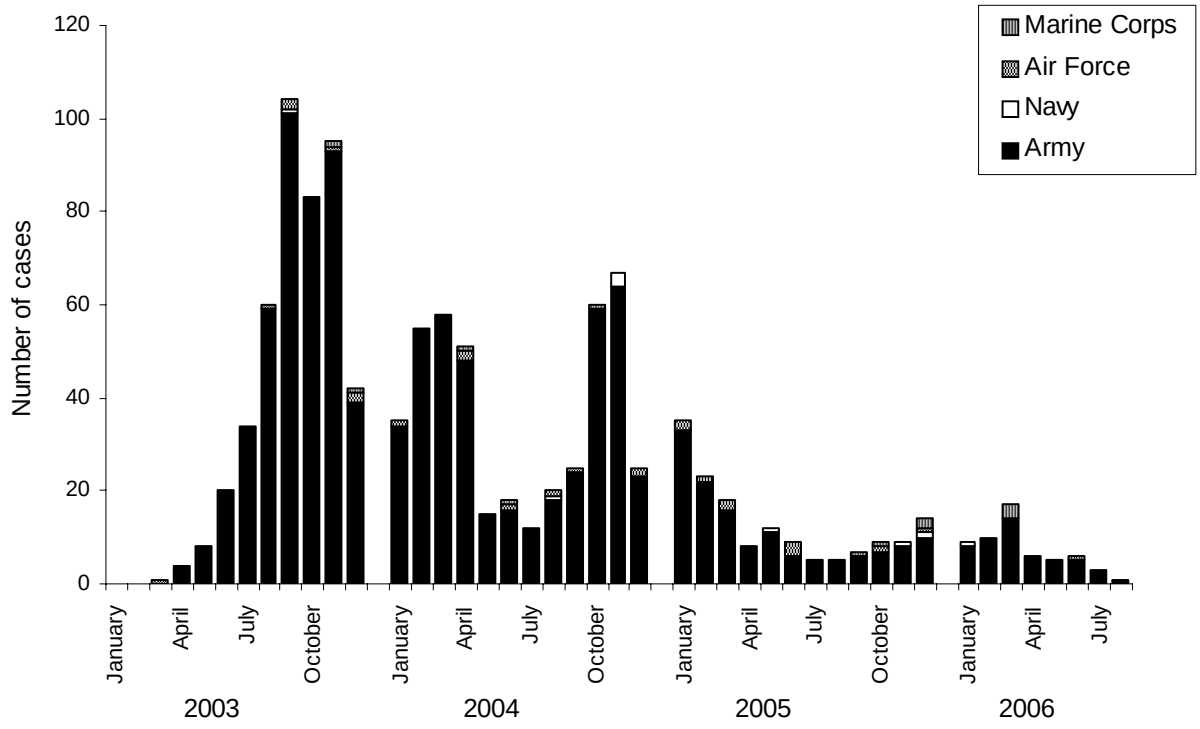


Table 4. Proportion of post-deployment forms that include reports of exposure concerns, by age group and component, U.S. Armed Forces, January 2003-August 2006

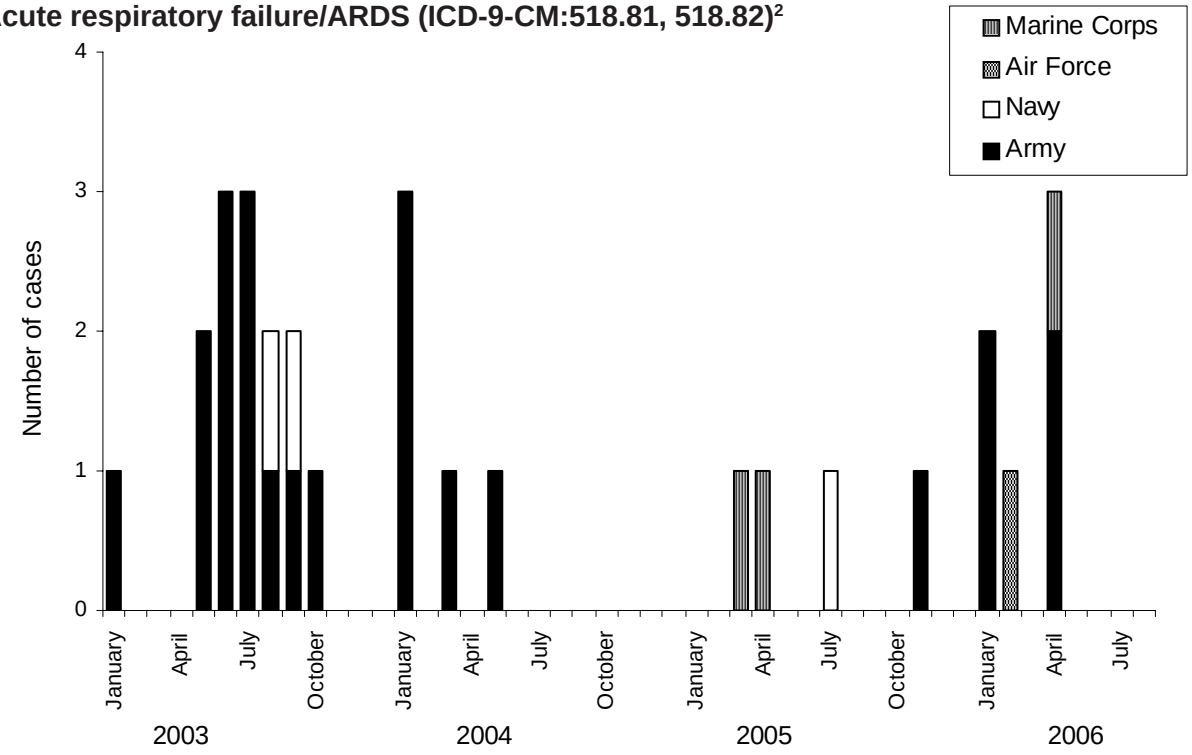
Age group	Active	Reserve
<20	6.4	13.8
20-29	10.4	20.3
30-39	13.1	23.9
>39	16.0	26.1

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

Leishmaniasis (ICD-9-CM: 085.0-85.5)[1]



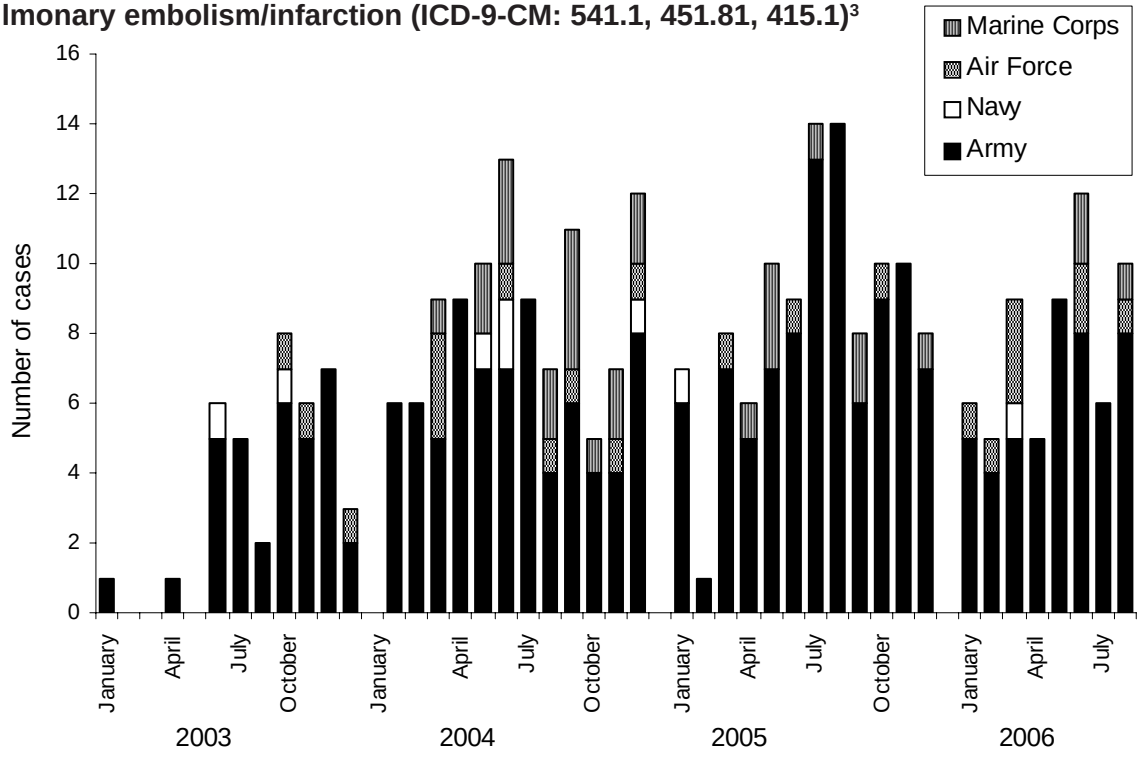
Acute respiratory failure/ARDS (ICD-9-CM:518.81, 518.82)[2]



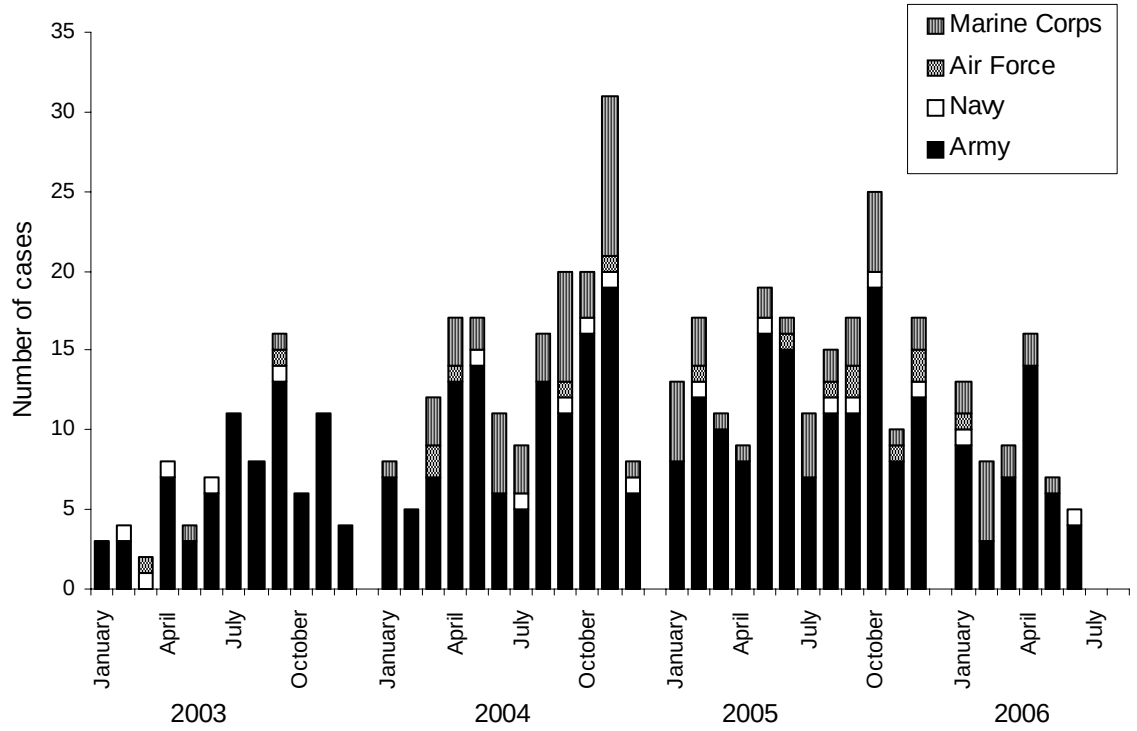
Footnotes:
[1] Indicator diagnosis (one per individual) during a hospitalization, ambulatory vist, and/or from a notifiable medical event during/after service in OEF/OIF.
[2] indicator diagnosis (one per individual) during a hospitalization while deployed to/within 30 days of returning from OEF/OIF.

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

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



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



Footnotes:
[3] Indicator diagnosis (one per individual) during a hospitalization or ambulatory visit while deployed to/within 30 days of returning from OEF/OIF.
[4] Indicator diagnosis (one per individual) during a hospitalization of a servicemember during/after service in OEF/OIF.

Sentinel reportable events for all beneficiaries[1] at U.S. Army medical facilities, cumulative numbers[2] for calendar years through August 31, 2005 and 2006

Reporting location	Number of reports all events[3]		Food-borne								Vaccine Preventable					
			Campylo-bacter		Giardia		Salmonella		Shigella		Hepatitis A		Hepatitis B		Varicella	
	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006
NORTH ATLANTIC																
Washington, DC Area	327	200	2	4	9	3	4	2	4	.	.	.	2	1	1	.
Aberdeen, MD	60	11	.	.	.	.	.	.	1	.	.	.	.	.	.	.
FT Belvoir, VA	278	253	8	11	.	.	7	6	.	1	.	.	1	.	.	5
FT Bragg, NC	1,204	1,192	6	8	.	.	14	16	3	.	.	.	.	.	.	.
FT Drum, NY	179	148	.	.	.	.	.	.	.	.	.	.	.	.	.	.
FT Eustis, VA	226	165	.	.	.	.	1	.	.	.	.	.	.	.	.	.
FT Knox, KY	194	197	4	.	.	2	2	.	.	.	.	.	.	.	.	.
FT Lee, VA	131	256	.	.	.	.	.	.	.	.	.	.	.	.	.	.
FT Meade, MD	84	86	.	.	.	.	1	1	.	.	.	.	.	.	1	.
West Point, NY	41	36	.	.	.	.	.	1	.	.	.	.	.	1	.	.
GREAT PLAINS																
FT Sam Houston, TX	350	298	.	.	.	1	3	1	2	.	.	2	5	4	.	.
FT Bliss, TX	295	383	1	.	4	2	2	9	6	1	.	3	.	1	.	1
FT Carson, CO	562	580	3	.	2	3	3	3	.	.	.	2	.	.	.	.
FT Hood, TX	1,768	1,249	6	4	1	1	8	10	4	9	.	.	.	.	.	1
FT Huachuca, AZ	51	51	.	.	.	.	.	.	.	.	.	.	.	.	.	.
FT Leavenworth, KS	33	28	.	.	.	1	1	.	1	.	.	.	.	.	.	.
FT Leonard Wood, MO	277	226	1	.	.	4	1	1	.	.	.	.	.	.	2	6
FT Polk, LA	189	193	.	2	1	1	2	1	.	.	.	2	1	.	.	.
FT Riley, KS	190	254	.	2	2	.	2	.	.	.	.	.	.	.	.	.
FT Sill, OK	124	177	.	.	1	.	.	1	1	.	.	.	.	.	.	2
SOUTHEAST																
FT Gordon, GA	311	350	.	.	.	.	.	.	.	.	.	.	5	11	2	1
FT Benning, GA	245	325	2	2	1	1	6	3	2	.	.	.	.	.	.	.
FT Campbell, KY	688	468	.	1	.	.	7	.	4	.	.	.	.	.	1	.
FT Jackson, SC	141	179	.	.	.	.	.	.	.	.	2	.	.	.	.	.
FT Rucker, AL	28	59	.	1	.	.	.	2	.	.	.	.	.	.	.	.
FT Stewart, GA	391	625	.	.	2	.	10	5	.	4	7	2	28	4	1	3
WESTERN																
FT Lewis, WA	405	439	4	.	.	.	1	4	.	.	.	.	.	1	.	1
FT Irwin, CA	52	84	.	.	.	.	.	.	.	.	.	.	1	.	.	.
FT Wainwright, AK	122	154	3	.	.	.	1	3	.	.	.	.	.	.	1	.
OTHER LOCATIONS																
Hawaii	557	681	31	28	5	1	9	9	3	1	1	.	.	.	1	.
Europe	1,199	654	14	11	.	1	19	16	1	.	3	1	4	1	2	1
Korea	380	481	.	.	.	.	.	.	.	.	1	.	1	3	.	5
Total	**11,082**	**10,482**	**85**	**74**	**28**	**21**	**104**	**94**	**32**	**16**	**14**	**12**	**48**	**27**	**12**	**26**

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

[2] Events reported by Sept 7, 2005 and 2006.

[3] Seventy events specified by Tri-Service Reportable Events, Version 1.0, July 2000.

Note: Completeness and timeliness of reporting vary by facility.

Source: Army Reportable Medical Events System.

(Cont'd) Sentinel reportable events for all beneficiaries[1] at U.S. Army medical facilities, cumulative numbers[2] for calendar years through August 31, 2005 and 2006

Reporting location	Arthropod-borne				Sexually Transmitted								Environmental			
	Lyme disease		Malaria		Chlamydia		Gonorrhea		Syphilis[4]		Urethritis[5]		Cold		Heat	
	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006
NORTH ATLANTIC																
Washington, DC Area	1	1	2	3	131	112	20	17	7	2	.	1	1	.	2	.
Aberdeen, MD	3	.	.	.	20	8	3	1	2	.	.	.	.	.	.	.
FT Belvoir, VA	1	2	.	.	147	129	33	31	.	.	.	.	.	.	.	.
FT Bragg, NC	.	1	.	15	806	825	165	112	2	4	80	92	1	1	109	111
FT Drum, NY	.	.	.	.	122	134	8	14	.	.	.	.	2	.	1	.
FT Eustis, VA	.	.	.	.	117	105	26	32	.	.	.	.	2	.	34	19
FT Knox, KY	1	6	1	.	115	139	14	24	.	2	.	.	1	3	20	10
FT Lee, VA	1	.	.	.	108	191	16	35	.	.	.	.	1	.	5	3
FT Meade, MD	.	.	.	.	75	72	7	12	.	.	.	1	.	.	.	.
West Point, NY	6	7	.	.	23	18	2	.	.	.	.	.	1	1	3	2
GREAT PLAINS																
FT Sam Houston, TX	.	.	.	.	217	216	60	59	3	6	.	.	.	.	11	1
FT Bliss, TX	.	.	1	1	118	204	23	39	3	3	.	.	.	.	14	4
FT Carson, CO	.	.	4	.	385	397	46	70	.	.	18	30	1	.	.	.
FT Hood, TX	.	.	1	1	1,038	812	342	195	.	.	177	29	.	.	115	29
FT Huachuca, AZ	.	.	.	.	34	43	14	7	.	.	.	.	.	1	2	.
FT Leavenworth, KS	.	.	.	.	25	24	3	3	.	.	.	.	1	.	2	.
FT Leonard Wood, MO	.	.	1	.	159	153	37	12	2	.	1	.	4	.	18	15
FT Polk, LA	.	.	1	.	114	102	29	29	1	2	.	.	.	.	35	54
FT Riley, KS	.	1	.	.	101	207	41	25	.	.	.	.	5	.	4	10
FT Sill, OK	.	.	.	.	45	42	24	17	.	2	.	.	.	.	28	57
SOUTHEAST																
FT Gordon, GA	.	.	2	.	186	249	19	52	1	.	.	3	.	.	45	4
FT Benning, GA	.	.	2	.	120	209	36	53	1	.	.	.	1	.	72	52
FT Campbell, KY	2	.	1	.	452	315	83	46	.	.	.	.	1	.	64	30
FT Jackson, SC	.	.	.	.	112	157	17	21	.	.	.	.	.	.	6	.
FT Rucker, AL	.	.	.	.	18	42	9	3	.	1	.	.	.	.	.	9
FT Stewart, GA	3	3	.	3	178	372	78	119	.	1	13	17	1	1	36	72
WESTERN																
FT Lewis, WA	1	.	5	4	279	340	42	55	.	1	50	23	.	.	2	.
FT Irwin, CA	.	.	.	.	35	60	12	11	.	3	.	.	.	.	4	10
FT Wainwright, AK	.	.	1	16	85	96	8	14	1	.	.	.	14	16	.	.
OTHER LOCATIONS																
Hawaii	.	.	11	6	364	509	46	64	.	.	.	.	.	.	7	6
Europe	33	18	4	10	770	420	196	126	2	3	1	1	5	.	3	4
Korea	.	.	5	8	304	376	48	64	2	3	.	.	3	2	13	12
Total	**52**	**39**	**42**	**67**	**6,803**	**7,078**	**1,507**	**1,362**	**27**	**33**	**340**	**197**	**45**	**25**	**655**	**514**

[4] Primary and secondary.

[5] Urethritis, non-gonococcal (NGU).

Note: Completeness and timeliness of reporting vary by facility.

Source: Army Reportable Medical Events System.

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