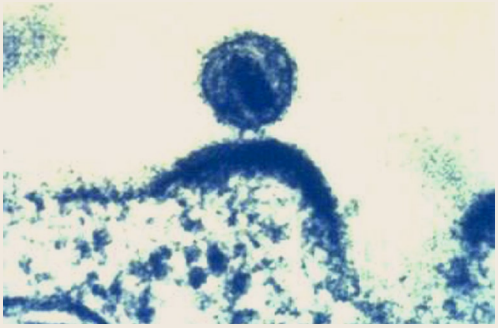
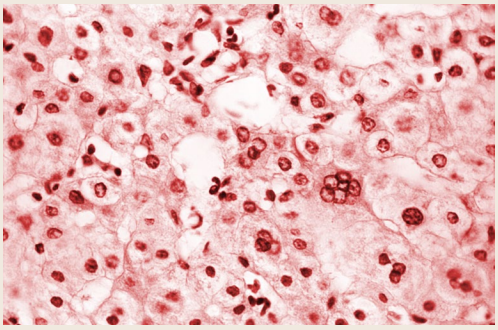
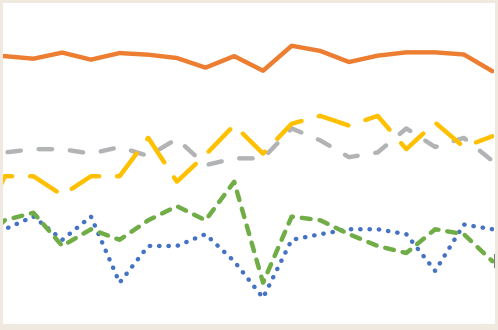
MSMR

Medical Surveillance Monthly Report October 2024 | Vol. 31 | No. 10







In this issue:

A Publication of the Armed Forces Health Surveillance Division

www.health.mil/MSMR

Update

Routine Screening for Antibodies to Human Immunodeficiency Virus in the U.S. Armed Forces, Active and Reserve Components, January 2019–June 2024

The U.S. Department of Defense (DOD) has conducted an active surveillance program for HIV since 1986, when reliable screening methods became widely available. This program consists of screening all service members at specific points in time: prior to entry (all accessions must be HIV-negative prior to the start of service), before deployment or any change in status (e.g., change in component, between branches, or commissioning), and once every 2 years while a member of the U.S. military.[1]

While infection with HIV currently disqualifies applicants for entry into U.S. military service, this policy may be affected by a recent federal court ruling that the DOD cannot ban HIV-positive people with undetectable viral loads from joining the military.[2] Due to significant advances in the diagnosis, treatment, and prevention of HIV, in June 2022 the DOD amended policies to prevent HIV-positive service members with an undetectable viral load from being discharged or separated solely on the basis of their HIV status.[1] In addition, HIV-positive personnel are not non-deployable solely for a positive status; decisions related to deployability should be made on a case-by-case basis and must be justified by a service member's inability to perform the duties to which he or she would be assigned.[3]

Summaries of HIV seropositivity for members of the U.S. military have been published with *MSMR* since 1995. The current report summarizes numbers and trends of newly identified HIV-antibody seropositivity from January 1, 2019 through June 30, 2024 among military members of 5 services under the active and reserve components of the U.S. Armed Forces, in addition to the Army and Air Force National Guard.

Methods

The surveillance population included all individuals eligible for HIV antibody screening from January 1, 2019 through June 30, 2024 while serving in the active or reserve components of the U.S. Army, Navy, Air Force, Marine Corps, or Coast Guard. Space Force service members were categorized as Air Force for this analysis. All individuals who were tested, and all initial detections of antibodies to HIV, through U.S. military medical testing programs were ascertained from the Department of Defense Serum Repository (DODSR) specimens accessioned to the Defense Medical Surveillance System (DMSS). Due to changes in data processing, positive specimens for Navy and Marine Corps service members are no longer accessioned in DODSR and DMSS. To account for this limitation, data for the Navy and Marine Corps were obtained from the Navy Bloodborne Infection Management Center (NBMIC); the total number of HIV infections from 2022 through June 30, 2024 were ascertained from the Navy's HIV Management System and NBMIC end-of-year reports.

An incident case of HIV-antibody seropositivity was defined as an individual with positive HIV test results on 2 different, serial specimens. Individuals who had just 1 positive result without a subsequent negative result were also defined as positive, to capture those who had yet to test positive for a second time.

Non-positive HIV samples from Navy service members remain documented in DODSR and accessioned through DMSS; thus, the total number of HIV-positive tests were acquired from DMSS to calculate seropositivity rates as a standardized methodology for all services. Annual rates of HIV seropositivity among service members were calculated by dividing the number of incident cases of HIV antibody seropositivity during each calendar year by the number of individuals who were tested at least once during the relevant calendar year. Rates were further stratified by service, component, and sex.

What are the new findings?

From January 2023 through June 2024, approximately 1.8 million service members (active component, Guard, and reserve) were tested for antibodies to HIV, and 403 (0.22 per 1,000 tested) were identified as HIV-antibody positive. Of the 403 new HIV infections that were identified during this period, only 10 (2.5%) were among female service members.

What is the impact on readiness and force health protection?

The HIV-antibody seropositivity rates first reported in *MSMR* 3 decades ago remain comparable to rates presented in 2023, under scoring a continued value of HIV testing programs. The cost-effectiveness of HIV testing strategies, differentiated by universal or indications-based testing following military accession, may be instructive to further understand the value of current screening efforts in different clinical settings.

Results

From January 2023 through June 2024, approximately 1.8 million U.S. service members (of the active component, Guard, and reserve) were tested for antibodies to HIV, and of those individuals tested, 403 (0.22 per 1,000) were identified as HIV-antibody positive. Of the 403 new HIV infections identified during this period, only 10 (2.5%) occurred in female service members.

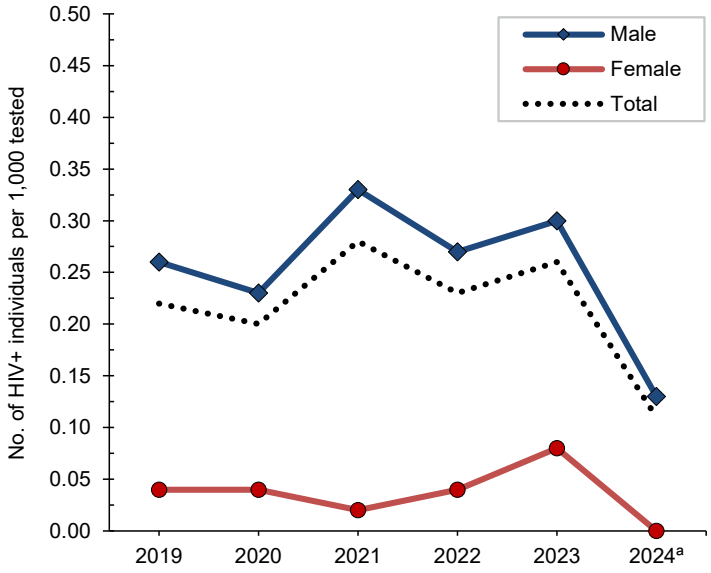
U.S. Army

Active component: From January 2023 through June 2024, a total of 458,315 U.S. Army active component soldiers were tested for HIV antibodies, and 97 were identified as HIV-antibody positive (seropositivity: 0.21 per 1,000 tested) **(Table 1)**. During the surveillance period, annual seropositivity rates fluctuated between a low of 0.11 per 1,000 tested in 2024 (through June) and a high of 0.28 per 1,000 tested in 2021 **(Table 1, Figure 1)**. Annual seropositivity rates for male active component soldiers were considerably higher than those of female active component soldiers **(Figure 1)**. In 2023, 1 new HIV infection on average was detected among active component soldiers per 4,682 screening tests **(Table 1)**. Of the 401 active component soldiers diagnosed with HIV infections since 2019, a total of 250 (62.3%) were still in military service in 2024.

Army National Guard: From January 2023 through June 2024, a total of 283,865 U.S. Army National Guard members were tested for HIV antibodies, and 84 soldiers were identified as HIV-antibody positive (seropositivity: 0.30 per 1,000 tested) **(Table 2)**. On average, 1 new HIV infection was detected in 2023 among Army National Guard soldiers per 4,466 screening tests. Of the 294 National Guard soldiers who tested positive for HIV since 2019, a total of 201 (68.4%) were still in service in 2024.

Army Reserve: From January 2023 through June 2024, a total of 111,713 U.S. Army Reserve members were tested for HIV antibodies, and 39 were identified as HIV-antibody positive (seropositivity: 0.35 per 1,000 tested) **(Table 3)**. During 2023, on average 1 new HIV infection was detected among Army reservists per 3,308 screening tests. Of the 168 Army reservists diagnosed with HIV infections since 2019, a total of 107 (63.7%) were still in service in 2024.

FIGURE 1. HIV Antibody Seropositivity Rates by Sex, Active Component, U.S. Army, January 2019–June 2024



Abbreviations: No., number; HIV, human immunodeficiency virus; +, positive.
[a]Through Jun. 30, 2024.

U.S. Navy

Active component: A total of 286,804 members of the U.S. Navy active component were tested for HIV antibodies from January 2023 through June 2024, and 83 sailors were identified as HIV-antibody positive (seropositivity: 0.29 per 1,000 tested) **(Table 4)**. During the surveillance period, annual seropositivity rates fluctuated between a low of 0.16 per 1,000 tested in 2020 and a high of 0.31 per 1,000 tested

TABLE 1. New Diagnoses of HIV Infections, by Sex, Active Component, U.S. Army, January 2019–June 2024

Year	Total HIV Tests	Total Persons Tested	Males Tested	Females Tested	Total New HIV(+)	New HIV(+) Males	New HIV(+) Females	Overall Rate per 1,000 Tested	Male Rate per 1,000 Tested	Female Rate per 1,000 Tested	HIV(+) Still in Military Service in 2024
2019	439,605	345,647	289,716	55,931	77	75	2	0.22	0.26	0.04	33
2020	398,309	322,329	269,966	52,363	65	63	2	0.20	0.23	0.04	31
2021	403,656	323,460	270,836	52,624	90	89	1	0.28	0.33	0.02	48
2022	373,978	306,685	256,698	49,987	72	70	2	0.23	0.27	0.04	52
2023	374,535	303,642	254,111	49,531	80	76	4	0.26	0.30	0.08	69
2024[a]	171,329	154,673	128,736	25,937	17	17	0	0.11	0.13	0.00	17
Total	2,161,412	1,756,436	1,470,063	286,373	401	390	11	0.23	0.27	0.04	250

Abbreviation: HIV, human immunodeficiency virus; +, positive.
[a]Through Jun. 30, 2024.

TABLE 2. New Diagnoses of HIV Infections, by Sex, U.S. Army National Guard, January 2019–June 2024

Year	Total HIV Tests	Total Persons Tested	Males Tested	Females Tested	Total New HIV(+)	New HIV(+) Males	New HIV(+) Females	Overall Rate per 1,000 Tested	Male Rate per 1,000 Tested	Female Rate per 1,000 Tested	HIV(+) Still in Military Service in 2024
2019	235,019	202,926	165,307	37,619	60	60	0	0.30	0.36	0.00	24
2020	215,695	189,933	153,399	36,534	61	58	3	0.32	0.38	0.08	34
2021	218,058	190,119	153,998	36,121	50	48	2	0.26	0.31	0.06	32
2022	207,644	179,205	143,897	35,308	39	36	3	0.22	0.25	0.08	32
2023	214,384	186,739	149,526	37,213	48	47	1	0.26	0.31	0.03	43
2024[a]	104,652	97,126	77,253	19,873	36	35	1	0.37	0.45	0.05	36
Total	1,195,452	1,046,048	843,380	202,668	294	284	10	0.28	0.34	0.05	201

Abbreviation: HIV, human immunodeficiency virus; +, positive.
[a]Through Jun. 30, 2024.

TABLE 3. New Diagnoses of HIV Infections, by Sex, U.S. Army Reserve, January 2019–June 2024

Year	Total HIV Tests	Total Persons Tested	Males Tested	Females Tested	Total New HIV(+)	New HIV(+) Males	New HIV(+) Females	Overall Rate per 1,000 Tested	Male Rate per 1,000 Tested	Female Rate per 1,000 Tested	HIV(+) Still in Military Service in 2024
2019	125,864	109,292	81,929	27,363	42	40	2	0.38	0.49	0.07	23
2020	115,381	101,139	75,248	25,891	24	23	1	0.24	0.31	0.04	10
2021	119,109	101,435	75,562	25,873	29	29	0	0.29	0.38	0.00	18
2022	104,385	90,598	67,121	23,477	34	34	0	0.38	0.51	0.00	21
2023	79,399	69,058	50,624	18,434	24	23	1	0.35	0.45	0.05	22
2024[a]	45,786	42,655	31,532	11,123	15	15	0	0.35	0.48	0.00	13
Total	589,924	514,177	382,016	132,161	168	164	4	0.33	0.43	0.03	107

Abbreviation: HIV, human immunodeficiency virus; +, positive.
[a]Through Jun. 30, 2024.

TABLE 4. New Diagnoses of HIV Infections[a], by Sex, Active Component, U.S. Navy, January 2019–June 2024

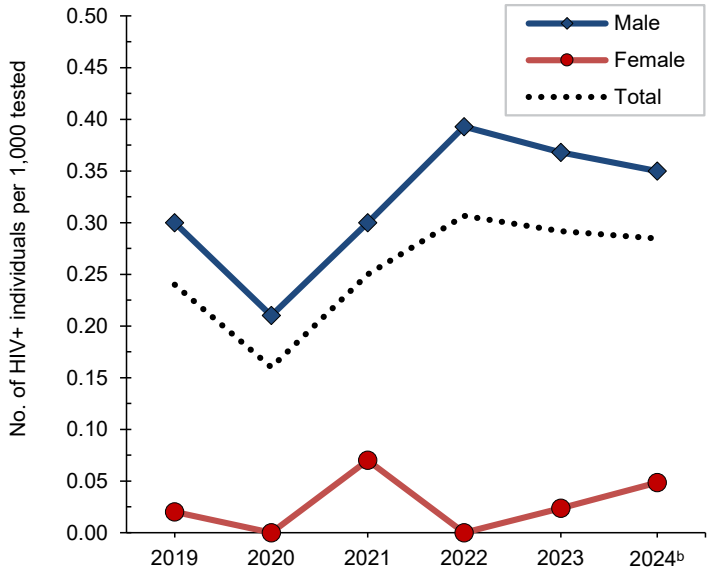
Year	Total HIV Tests	Total Persons Tested	Males Tested	Females Tested	Total New HIV(+)	New HIV(+) Males	New HIV(+) Females	Overall Rate per 1,000 Tested	Male Rate per 1,000 Tested	Female Rate per 1,000 Tested	HIV(+) Still in Military Service in 2024
2019	258,370	222,996	176,040	46,956	54	53	1	0.24	0.30	0.02	24
2020	224,610	199,493	156,082	43,411	32	32	0	0.16	0.21	0.00	17
2021	242,437	215,078	168,993	46,085	54	51	3	0.25	0.30	0.07	38
2022	226,492	195,718	152,740	42,978	60	60	0	0.31	0.39	0.00	46
2023	223,050	191,883	149,533	42,350	56	55	1	0.29	0.37	0.02	56
2024[b]	101,731	94,921	74,307	20,614	27	26	1	0.28	0.35	0.05	27
Total	1,276,690	1,120,089	877,695	242,394	283	277	6	0.25	0.32	0.02	208

Abbreviation: HIV, human immunodeficiency virus; +, positive.
[a]Total number of new HIV infections determined from samples accessioned in DMSS (2019–2021) and Navy Bloodborne Infection Management Center reports (2022–Jun. 2024).
[b]Through Jun. 30, 2024.

in 2022 **(Table 4, Figure 2)**. Annual seropositivity rates for male active component sailors were considerably higher than those of female active component soldiers **(Figure 2)**. During 2023, on average, 1 new HIV infection was detected among active component sailors per 3,983 screening tests. Of the 283 active component sailors diagnosed with HIV infections since 2019, a total of 208 (73.5%) were still in service in 2024.

Navy Reserve: From January 2023 through June 2024, a total of 44,375 members of the U.S. Navy Reserve were tested for HIV antibodies, and 6 sailors were identified as HIV-antibody positive (seropositivity: 0.14 per 1,000 tested) **(Table 5)**. On average, 1 new HIV infection was detected in 2023 among Navy reservists per 10,879 screening tests. Of the 38 reserve component sailors diagnosed with HIV infections since 2019, a total of 25 (65.8%) were still in military service in 2024.

FIGURE 2. HIV Antibody Seropositivity Rates[a] by Sex, Active Component, U.S. Navy, January 2019–June 2024



Abbreviations: No., number; HIV, human immunodeficiency virus; +, positive.
[a]Total number of new HIV infections determined from samples accessioned in DMSS (2019–2021) and Navy Bloodborne Infection Management Center reports (2022–June 2024).
[b]Through Jun. 30, 2024.

U.S. Air Force

Active component: From January 2023 through June 2024, a total of 282,636 active component members of the U.S. Air Force were tested for HIV antibodies, and 39 Air Force members were diagnosed with HIV infection (seropositivity: 0.14 per 1,000 tested) **(Table 6)**. On average, 1 new HIV infection was detected in 2023 among active component Air Force members per 8,595 screening tests. Of the 152 active component Air Force members diagnosed with HIV infections since 2019, 101 (66.4%) were still in military service in 2024. During the surveillance period, seropositivity rates among male members ranged from a low of 0.11 per 1,000 tested in 2020 to a high of 0.22 per 1,000 tested in 2022 **(Figure 3)**.

Air National Guard: From January 2023 through June 2024, a total of 84,470 members of the Air National Guard were tested for HIV antibodies, and 8 Air National Guard members were diagnosed with HIV infection (seropositivity: 0.09 per 1,000 airmen tested) **(Table 7)**. During 2023, on average 1 new HIV infection was detected among Air National Guard members per 14,137 screening tests. Of the 32 Air National Guard members diagnosed with HIV infections since 2019, 25 (78.1%) were still in service in 2024.

TABLE 5. New Diagnoses of HIV Infections[a], by Sex, U.S. Navy Reserve, January 2019–June 2024

Year	Total HIV Tests	Total persons Tested	Males Tested	Females Tested	Total New HIV(+)	New HIV(+) Males	New HIV(+) Females	Overall Rate per 1,000 Tested	Male Rate per 1,000 Tested	Female Rate per 1,000 Tested	HIV(+) Still in Military Service in 2024
2019	38,721	34,384	26,473	7,911	9	9	0	0.26	0.34	0.00	6
2020	30,251	27,846	21,136	6,710	6	6	0	0.22	0.28	0.00	4
2021	36,498	33,184	25,040	8,144	11	9	2	0.33	0.36	0.25	3
2022	32,233	28,761	21,569	7,192	6	4	2	0.21	0.19	0.28	6
2023	32,638	29,750	22,142	7,608	3	3	0	0.10	0.14	0.00	3
2024[b]	15,588	14,625	10,943	3,682	3	3	0	0.21	0.27	0.00	3
Total	185,929	168,550	127,303	41,247	38	34	4	0.23	0.27	0.10	25

Abbreviation: HIV, human immunodeficiency virus; +, positive.
[a]Total number of new HIV infections determined from samples accessioned in DMSS (2019–2021) and Navy Bloodborne Infection Management Center reports (2022–Jun. 2024).
[b]Through Jun. 30, 2024.

TABLE 6. New Diagnoses of HIV Infections, by Sex, Active Component, U.S. Air Force, January 2019–June 2024

Year	Total HIV Tests	Total Persons Tested	Males Tested	Females Tested	Total New HIV(+)	New HIV(+) Males	New HIV(+) Females	Overall Rate per 1,000 Tested	Male Rate per 1,000 Tested	Female Rate per 1,000 Tested	HIV(+) Still in Military Service in 2024
2019	262,875	209,389	164,445	44,944	34	34	0	0.16	0.21	0.00	18
2020	243,698	194,466	152,311	42,155	16	16	0	0.08	0.11	0.00	10
2021	256,750	208,331	162,312	46,019	31	30	1	0.15	0.18	0.02	18
2022	238,718	190,562	148,669	41,893	32	32	0	0.17	0.22	0.00	22
2023	249,266	191,525	149,674	41,851	29	29	0	0.15	0.19	0.00	23
2024[a]	109,221	91,111	70,986	20,125	10	10	0	0.11	0.14	0.00	10
Total	1,360,528	1,085,384	848,397	236,987	152	151	1	0.14	0.18	0.00	101

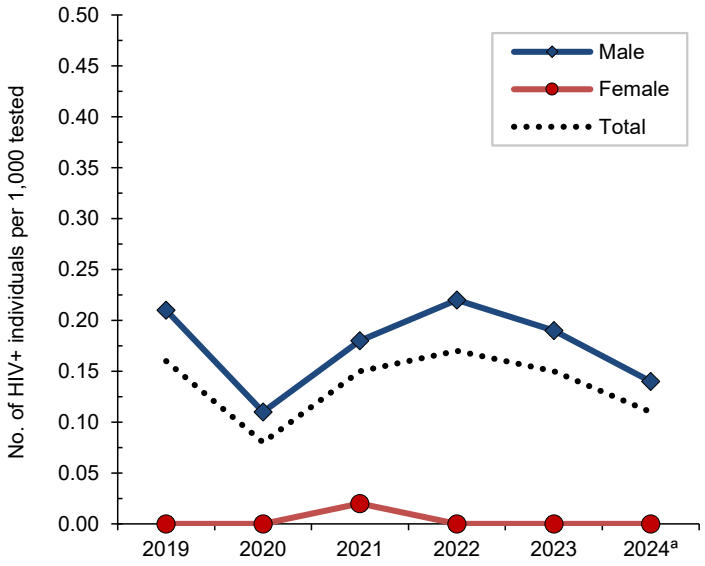
Abbreviations: HIV, human immunodeficiency virus; +, positive.
[a]Through Jun. 30, 2024.

Air Force Reserve: From January 2023 through June 2024, a total of 49,078 members of the Air Force Reserve were tested for HIV antibodies, and 6 Air Force reservists were diagnosed with HIV infections (seropositivity: 0.12 per 1,000 tested) **(Table 8)**. On average, in 2023 1 new HIV infection was detected among Air Force reservists per 9,725 screening tests. Of the 38 reservists in the Air Force diagnosed with HIV infections since 2019, 28 (73.7%) were still in military service in 2024.

U.S. Marine Corps

Active component: From January 2023 through June 2024, a total of 161,928 U.S. Marine Corps active component members were tested for HIV antibodies, and 32 were identified as HIV-antibody positive

FIGURE 3. HIV Antibody Seropositivity Rates by Sex, Active Component, U.S. Air Force, January 2019–June 2024



Abbreviations: No., number; HIV, human immunodeficiency virus; +, positive.
[a]Through Jun. 30, 2024.

TABLE 7. New Diagnoses of HIV Infections, by Sex, U.S. Air National Guard, January 2019–June 2024

Year	Total HIV Tests	Total Persons Tested	Males Tested	Females Tested	Total New HIV(+)	New HIV(+) Males	New HIV(+) Females	Overall Rate per 1,000 Tested	Male Rate per 1,000 Tested	Female Rate per 1,000 Tested	HIV(+) Still in Military Service in 2024
2019	67,333	58,861	46,271	12,590	7	7	0	0.12	0.15	0.00	3
2020	67,947	58,973	46,174	12,799	6	5	1	0.10	0.11	0.08	4
2021	68,111	60,310	47,167	13,143	7	7	0	0.12	0.15	0.00	7
2022	61,356	54,829	42,793	12,036	4	3	1	0.07	0.07	0.08	3
2023	70,685	56,934	44,614	12,320	5	5	0	0.09	0.11	0.00	5
2024[a]	33,964	27,536	21,685	5,851	3	2	1	0.11	0.09	0.17	3
Total	369,396	317,443	248,704	68,739	32	29	3	0.10	0.12	0.04	25

Abbreviation: HIV, human immunodeficiency virus; +, positive.
[a]Through Jun. 30, 2024.

(seropositivity: 0.20 per 1,000 tested) **(Table 9)**. Annual seropositivity rates rose from a low of 0.12 per 1,000 tested in 2021 and a high of 0.26 per 1,000 tested at mid-year 2024 **(Table 9, Figure 4)**. In 2023, on average, 1 new HIV infection per 6,820 screening tests was detected among active component marines. Of the 102 active component marines diagnosed with HIV infections since 2019, a total of 54 (52.9%) were still in service in 2024.

Marine Corps Reserve: From January 2023 through June 2024, a total of 29,271 Marine Corps Reserve members were tested for antibodies to HIV, and 8 reservists were identified as HIV-antibody positive (seropositivity: 0.27 per 1,000 tested) **(Table 10)**. During 2023, on average, 1 new HIV infection was detected among Marine Corps reservists per 7,192 screening tests. All 8 reservists diagnosed with HIV infection since 2023 were still in military service in 2024.

U.S. Coast Guard

Active component: From January 2023 through June 2024, a total of 27,709 U.S. Coast Guard active component members were tested for antibodies to HIV, and 1 was identified as HIV-antibody positive **(Table 11)**. Of the 5 active component Coast Guardsmen diagnosed with HIV infections since 2019, a total of 3 (60.0%) were still in service in 2024.

Coast Guard Reserve: From January 2023 through June 2024, a total of 4,448 U.S. Coast Guard Reserve members were tested for HIV antibodies, with none identified as HIV-antibody positive **(Table 12)**.

Discussion

The U.S. military has conducted routine screening for antibodies to HIV among all civilian applicants for service and all service members for more than

TABLE 8. New Diagnoses of HIV Infections, by Sex, U.S. Air Force Reserve, January 2019–June 2024

Year	Total HIV Tests	Total persons Tested	Males Tested	Females Tested	Total New HIV(+)	New HIV(+) Males	New HIV(+) Females	Overall Rate per 1,000 Tested	Male Rate per 1,000 Tested	Female Rate per 1,000 Tested	HIV(+) Still in Military Service in 2024
2019	42,210	37,046	26,854	10,192	7	7	0	0.19	0.26	0	4
2020	38,943	33,947	24,604	9,343	6	6	0	0.18	0.24	0	4
2021	41,589	37,431	27,023	10,408	15	14	1	0.40	0.52	0.10	10
2022	37,273	33,459	24,184	9,275	4	4	0	0.12	0.17	0	4
2023	38,901	33,665	24,350	9,315	4	4	0	0.12	0.16	0	4
2024[a]	17,984	15,413	10,898	4,515	2	2	0	0.13	0.18	0	2
Total	216,900	190,961	137,913	53,048	38	37	1	0.20	0.27	0.02	28

Abbreviation: HIV, human immunodeficiency virus; +, positive.
[a]Through Jun. 30, 2024.

TABLE 9. New Diagnoses of HIV Infections[a], by Sex, Active Component, U.S. Marine Corps, January 2019–June 2024

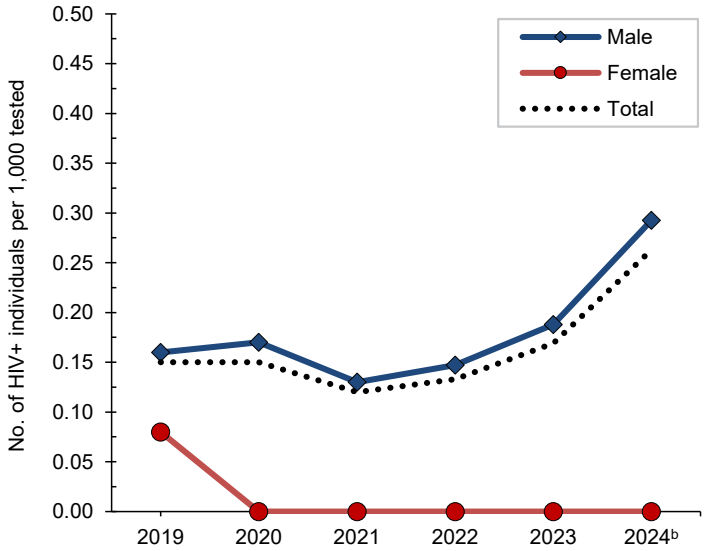
Year	Total HIV Tests	Total Persons Tested	Males Tested	Females Tested	Total New HIV(+)	New HIV(+) Males	New HIV(+) Females	Overall Rate per 1,000 Tested	Male Rate per 1,000 Tested	Female Rate per 1,000 Tested	HIV(+) Still in Military Service in 2024
2019	160,052	138,199	125,668	12,531	21	20	1	0.15	0.16	0.08	3
2020	140,662	123,760	112,634	11,126	19	19	0	0.15	0.17	0.00	5
2021	148,035	129,764	117,793	11,971	15	15	0	0.12	0.13	0.00	5
2022	129,466	112,851	101,859	10,992	15	15	0	0.13	0.15	0.00	9
2023	129,578	112,487	101,123	11,364	19	19	0	0.17	0.19	0.00	19
2024[b]	53,195	49,441	44,431	5,010	13	13	0	0.26	0.29	0.00	13
Total	760,988	666,502	603,508	62,994	102	101	1	0.15	0.17	0.02	54

Abbreviation: HIV, human immunodeficiency virus; +, positive.
[a]Total number of new HIV infections determined from samples accessioned in DMSS (2019–2021) and Navy Bloodborne Infection Management Center reports (2022–Jun. 2024).
[b]Through Jun. 30, 2024.

30 years.[4-7] In 1995 the U.S. Army tested approximately 1.1 million specimens a year, demonstrating an economically efficient, large-scale model for HIV testing.[8] The first *MSMR* article to publish results from HIV screening programs indicates that antibody seropositivity rates in 1994 for the Army active duty (0.19 per 1,000 soldiers) and reserve component (0.23 per 1,000 soldiers) remain comparable to rates presented in 2023.[9] Three decades later, this comparison underscores a continued value of HIV testing programs. The cost-effectiveness of HIV testing strategies, delineated by universal or indications-based testing after entry into the military, may be instructive to understand the value of current screening efforts in different clinical settings.

Archived surveillance data also reflect improved retention of HIV-positive service members, in alignment with recent DOD policy that recognizes significant advances in the diagnosis, prevention, and treatment of the disease. From 1990 to 1994, a total of 889 active and reserve component soldiers were diagnosed with HIV-1 infection. By 1995, only 234 (26.0%) were still in service.[9] Today, a comparative retention figure for active component Army service members has increased to 62.3% (250 of 401 soldiers diagnosed since 2019 are still in service as of 2024). Retention of HIV-positive service members differs by component and service branch, with highest retention demonstrated for the Air Force National Guard (78.1%), Air Force Reserve (73.7%), and active component Navy (73.5%); however, these figures are not adjusted for overall retention differences across the force.

FIGURE 4. HIV Antibody Seropositivity Rates[a] by Sex, Active Component, U.S. Marine Corps, January 2019–June 2024



Abbreviations: No., number; HIV, human immunodeficiency virus; +, positive.
[a]Total number of new HIV infections determined from samples accessioned in DMSS (2019–2021) and Navy Bloodborne Infection Management Center reports (2022–June 2024).
[b] Through Jun. 30, 2024.

The most recent active component Army results indicate a substantial decline of new HIV infections as of June 2024, dropping from 0.26 per 1,000 soldiers in 2023 to 0.11 per 1,000 soldiers as of mid-year 2024. An inverse trend was observed for the active component Marines, doubling between 2021 and mid-year 2024 (from 0.12 per 1,000 marines to 0.26 per 1,000 marines). For both services, the mid-year 2024 HIV seropositivity rates were higher for the Army Reserve/National Guard and Marine Corps Reserves in comparison to the respective active component.

TABLE 10. New Diagnoses of HIV Infections[a], by Sex, U.S. Marine Corps Reserve, January 2019–June 2024

Year	Total HIV Tests	Total Persons Tested	Males Tested	Females Tested	Total New HIV(+)	New HIV(+) Males	New HIV(+) Females	Overall rate per 1,000 Tested	Male Rate per 1,000 Tested	Female Rate per 1,000 Tested	HIV(+) Still in Military Service in 2024
2019	28,198	24,833	23,931	902	3	3	0	0.12	0.13	0.00	1
2020	19,371	17,874	17,141	733	2	2	0	0.11	0.12	0.00	1
2021	26,095	22,700	21,841	859	5	5	0	0.22	0.23	0.00	1
2022	19,963	17,747	17,024	723	3	3	0	0.17	0.18	0.00	3
2023	21,577	19,193	18,309	884	3	3	0	0.16	0.16	0.00	3
2024[b]	10,485	10,078	9,588	490	5	5	0	0.50	0.52	0.00	5
Total	125,689	112,425	107,834	4,591	21	21	0	0.19	0.19	0.00	14

Abbreviation: HIV, human immunodeficiency virus; +, positive.
[a]Total number of new HIV infections determined from samples accessioned in DMSS (2019–2021) and Navy Bloodborne Infection Management Center reports (2022–Jun. 2024).
[a]Through Jun. 30, 2024.

TABLE 11. New Diagnoses of HIV Infections, by Sex, Active Component, U.S. Coast Guard, January 2019–June 2024

Year	Total HIV Tests	Total Persons Tested	Males Tested	Females Tested	Total New HIV(+)	New HIV(+) Males	New HIV(+) Females	Overall Rate per 1,000 Tested	Male Rate per 1,000 Tested	Female Rate per 1,000 Tested	HIV(+) Still in Military Service in 2024
2019	21,219	20,342	17,192	3,150	2	2	0	0.10	0.12	0.00	0
2020	17,269	16,748	14,134	2,614	1	1	0	0.06	0.07	0.00	1
2021	20,464	19,801	16,633	3,168	1	1	0	0.05	0.06	0.00	1
2022	19,577	18,933	15,932	3,001	0	0	0	0.00	0.00	0.00	0
2023	19,280	18,488	15,477	3,011	0	0	0	0.00	0.00	0.00	0
2024[a]	9,395	9,221	7,685	1,536	1	1	0	0.11	0.13	0.00	1
Total	107,204	103,533	87,053	16,480	5	5	0	0.05	0.06	0.00	3

Abbreviation: HIV, human immunodeficiency virus; +, positive.
[a]Through Jun. 30, 2024.

TABLE 12. New Diagnoses of HIV Infections, by Sex, U.S. Coast Guard Reserve, January 2019–June 2024

Year	Total HIV Tests	Total Persons Tested	Males Tested	Females Tested	Total New HIV(+)	New HIV(+) Males	New HIV(+) FemaleS	Overall Rate per 1,000 Tested	Male Rate per 1,000 Tested	Female Rate per 1,000 Tested	HIV(+) Still in Military Service in 2024
2019	2,617	2,471	2,069	402	1	1	0	0.40	0.48	0.00	0
2020	2,846	2,756	2,284	472	1	1	0	0.36	0.44	0.00	1
2021	3,233	3,027	2,514	513	0	0	0	0.00	0.00	0.00	0
2022	2,918	2,826	2,333	493	0	0	0	0.00	0.00	0.00	0
2023	2,908	2,789	2,277	512	0	0	0	0.00	0.00	0.00	0
2024[a]	1,698	1,659	1,358	301	0	0	0	0.00	0.00	0.00	0
Total	16,220	15,528	12,835	2,693	2	2	0	0.13	0.16	0.00	1

Abbreviation: HIV, human immunodeficiency virus; +, positive.
[a]Through Jun. 30, 2024.

Routine screening of all civilian applicants for service and routine periodic testing of all active and reserve component members of the services have been fundamental components of the military's HIV control and clinical management efforts.[10] Previous *MSMR* reports presented HIV screening results for civilian applicants to the military service; however, these data are no longer available in the Defense Medical Surveillance System (DMSS), as the U.S. Military Entrance Processing Command stopped reporting data to the DMSS at the end of calendar year 2020. Thus, the data presented in this report reflect service members who had a negative HIV test upon entry to military service, followed by a positive test during uniformed service.

The results presented in this report should not be generalized to the U.S. population. Data from HIV screening in U.S. military populations are based on a negative test prior to entry, as well as voluntary service. In countries with universal conscription, compulsory testing in samples of military recruits will be more representative of the young adult population.[10] Following preaccession screening of military recruits, routine screening represents relatively recently acquired HIV infections (i.e., infections acquired since the most recent negative test of each affected individual).

Acknowledgments: We would like to thank Julia Wolfrey and Vanessa Santiago-Miranda with the Navy Bloodborne Infection Management Center for providing Navy and Marine Corps HIV infection summary data presented in this report.

References

1. U.S. Department of Defense. Department of Defense Instruction 6485.01: Human Immunodeficiency Virus (HIV) in Military Service Members. Updated Jun. 6, 2022. Accessed Oct. 17, 2024. https://www.esd.whs.mil/portals/54/documents/dd/issuances/dodi/648501p.pdf
2. Kime P. Federal judge rules Defense Department can't ban HIV-positive people from joining the military. *Military.com*. Updated Aug. 23, 2024. Accessed Sep. 13, 2024. https://www.military.com/daily-news/2024/08/23/military-cant-keep-hiv-positive-americans-enlisting-federal-judge-rules.html

3. The Secretary of Defense. Secretary of Defense Memorandum for Senior Pentagon Leadership, Commanders of the Combatant Commands, Defense Agency and DOD Field Activity Directors: Policy Regarding Human Immunodeficiency Virus-Positive Personnel Within the Armed Forces. U.S. Dept. of Defense. Jun. 6, 2022. Accessed Oct. 17, 2024. https://media.defense.gov/2022/jun/07/2003013398/-1/-1/1/policy-regarding-human-immunodeficiency-virus-positive-personnel-within-the-armed-forces.pdf
4. Brown AE, Brundage JF, Tomlinson JP, Burke DS. The U.S. Army HIV testing program: the first decade. *Mil Med*. 1996;161(2):117-122.
5. Armed Forces Epidemiological Board. Testing Interval for Human Immunodeficiency Virus (HIV-1) Infection in Military Personnel–2003-05. U.S. Dept. of Defense. Updated Mar. 29, 2004. Accessed Oct. 17, 2024. https://www.health.mil/reference-center/policies/2004/03/29/policy-memorandum---human-immunodeficiency-virus-interval-testing
6. Office of the Under Secretary of Defense for Personnel and Readiness. Department of Defense Instruction 6485.01: Human Immunodeficiency Virus (HIV) in Military Service Members. U.S. Dept. of Defense. Updated Jun. 6, 2022. Accessed Oct. 17, 2024. https://www.esd.whs.mil/portals/54/documents/dd/issuances/dodi/648501p.pdf
7. Office of the Under Secretary of Defense for Personnel and Readiness. DoD Instruction 6130.03, Volume 1: Medical Standards for Appointment, Enlistment, or Induction. U.S. Dept. of Defense. Updated May 28, 2024. Accessed Oct. 17, 2024. https://www.esd.whs.mil/portals/54/documents/dd/issuances/dodi/613003_vol01.pdf?ver=b0uhh9e1k_mdtz4punu8aw%3d%3d
8. Brown AE, Burke DS. Cost of HIV testing in the U.S. Army. *NEJM*. 1995;332(14):963. doi:10.1056/nejm199504063321419
9. Army Medical Surveillance Activity. Supplement: HIV-1 in the Army. *MSMR*. 1995;1(3):12-15.
10. Okulicz JF, Beckett CG, Blaylock JM, et al. Review of the U.S. military's human immunodeficiency virus program: a legacy of progress and a future of promise. *MSMR*. 2017;24(9):2-7.

Guest Editorial

Health Policy Analysis: Improving HIV PrEP Implementation to Help End the HIV Epidemic in the U.S. Military

James D. Mancuso, MD, MPH, DrPH; Jason Blaylock, MD; Scott Robinson, MD, MPH; Brian Agan, MD

Problem Statement

Use of HIV pre-exposure prophylaxis (PrEP) among U.S. military service members at high risk for HIV infection remains suboptimal, resulting in preventable new HIV infections and decreased medical readiness among service members. PrEP coverage should be increased to the greatest extent possible to prevent HIV infection and support the Military Health System (MHS) quadruple aim.[1]

Background

HIV infection of service members incurs both high health care costs to the MHS and a detrimental impact on the medical and operational readiness of the command.[2] While the crude rate of HIV incidence in the U.S. military (21 per 100,000 population) in 2021 was nearly double that of the general U.S. population (11.5 per 100,000),[3,4] military service members actually acquired HIV at a 48% lower rate than in the civilian population after adjusting for age, sex, and race and ethnicity.[5] HIV incidence rates have also declined rapidly in the U.S. population in recent years,[6] however, while remaining relatively constant in the U.S. military.[3] This consistent rate of incidence in the military population suggests that more intensive efforts are needed to reduce the impact of HIV on the health and readiness of U.S. armed forces and meet U.S. national targets of a 90% reduction in HIV incidence by 2030.[7] The recent ruling that HIV-infected applicants whose viral load is undetectable cannot be barred from military service[8] also emphasizes the continued need for the effective use of force health protection strategies to prevent HIV transmission.

The 4 pillars of the National HIV/AIDS strategy to ending the HIV epidemic are diagnosis, treatment, prevention, and response.[7] Diagnosis and treatment of HIV are already at high levels in the U.S. military due to testing requirements prior to entry into service, and at least biennially thereafter,[2] which limit opportunities for further improvement within those 2 strategy pillars. High-risk sexual behaviors are common among service members because of their age, sex, and other factors,[9] suggesting that HIV interventions in the U.S. military should be focused on prevention.

Promoting condom use and healthy sexual behaviors is an effective and important method of preventing HIV and other sexually transmitted infections (STIs), and the U.S. Preventive Services Task Force recommends routine behavioral counseling for all adults at increased risk for sexually transmitted infections (STIs).[10] HIV Pre-Exposure Prophylaxis (PrEP) is also both effective and acceptable to high-risk populations.[11] Oral PrEP reduces the risk of HIV infection by at least 54%, and with proper adherence oral PrEP has been shown to be nearly 100% effective.[12,13] Long-acting injectable cabotegravir further reduces risk by 67% when compared to oral PrEP. For these reasons, in August 2023 the U.S. Preventive Services Task Force (USPSTF) recommended HIV PrEP as a grade "A" intervention, indicating there is a high certainty of substantial net benefit from its use.[14]

Despite universal health care (including HIV PrEP) eligibility at no cost for military service members, use of HIV PrEP among high-risk military service members (31.6%) in 2023 was lower compared to high-risk members of the U.S. civilian population (36.0%) in 2022.[15] As the Affordable Care Act (ACA) requires insurers to cover all USPSTF "A" and "B" recommendations, civilian PrEP coverage is expected to continue to increase.[16] Another reason for optimism in the civilian sector includes targeted funding (rising from $33M in FY2019 to $573M in FY2024)[17] to support robust public health strategies, such as cost coverage and local awareness and persuasion media campaigns.

We used the Centers for Disease Control and Prevention (CDC)'s Policy Analytical Framework as a basis for developing this health policy analysis.[18] We developed several different policy options based upon the evidence summary and interventions described. We further developed evaluation criteria based on the CDC's Policy Analytical Framework that incorporated all elements of the MHS quadruple aim, including impact on population health and readiness, impact on the experience of care, and value in terms of cost-effectiveness. An additional criterion of feasibility was also added to account for cultural, societal, and political factors influencing this policy decision.

Our policy analysis suggests that HIV PrEP coverage in the MHS remains suboptimal, while several available interventions could result in substantial increases in PrEP coverage that would, in turn, result in further reductions in new service member HIV infections and increased medical readiness.

Evidence Summary

The lower coverage of HIV PrEP among U.S. military members at risk for HIV when compared to the U.S. population, despite universal health care eligibility, may result from differences in demographics, health behaviors, and health care systemic issues.[15] Several factors most amenable to improving PrEP coverage can be addressed, however, by the military and its health care system. One recent study found that 71% of service members who self-identified as men who have sex with men (MSM) were interested in accessing PrEP, but only 48% of those individuals reported being able to receive PrEP from their MHS providers.[19]

As in the broader U.S. population, MSM service members represent an important risk group for HIV infection in the U.S. military, for whom health disparities should be addressed and mitigated,[20] particularly due to the fact they comprise the largest group (66%) with indications for HIV PrEP in the U.S. military.[15] MSM service members have, however, historically noted many barriers to PrEP implementation, including MHS providers' lack of ability or willingness to provide PrEP; stigma and confidentiality concerns; and lack of codified PrEP services at many MHS facilities.[19] Another report from military PrEP patients and providers reiterated these identified barriers, including a lack of availability of expedited HIV and sexually transmitted infection (STI) testing at smaller bases.[21] These findings suggest several avenues for implementing systemic MHS improvement in PrEP accessibility. These potential interventions are also aligned with and support the quadruple aim—the MHS's stated goals to collectively transform into an integrated system of readiness and health—with improved readiness, better health, better care, and lower cost.[1]

The MHS has several advantages that support HIV PrEP coverage in the U.S. military, including universal eligibility for health care that is free of charge, access to a common electronic health record for optimal continuity of medical care, routine testing for HIV infection, and a very low homeless rate. Despite these advantages, PrEP coverage in the U.S. military remains lower than in the U.S. civilian sector.[15] While several factors are likely responsible for the less-than-optimal PrEP coverage within the MHS, a key factor is trust. Achieving continued increases in PrEP coverage will require reliable provision of culturally competent and confidential care, and outreach by MHS providers who are trustworthy and reliable to those at greatest risk of HIV infection. Any changes to the PrEP implementation program must also be effectively communicated to patients, providers, and the MHS beneficiary community at large to ensure program success.

Many MHS providers, particularly infectious disease (ID) physicians, provide excellent care to MSM service members and are well-versed in PrEP and other sexual health topics; other individual providers with an interest in providing these services have developed their own expertise. One recent study found that 93% of MSM service members reported receiving culturally competent care.[22] Another study showed that MSM service members expressed a preference for PrEP through the MHS (66%) rather than purchased care off the military installation (58%).[23] Some service members have noted, however, MHS providers with poor knowledge of PrEP, negative beliefs about PrEP, and general discomfort in assessing and discussing the sexual health needs of their MSM patients.[19,24] One study among MHS providers found that 49% self-reported poor knowledge of PrEP and only 29% had ever prescribed it[21]; a recent U.S. Navy study reported similar findings.[25]

Service members have reported difficulties in finding a provider willing to prescribe PrEP, with patients often referred to ID specialists, sometimes in the civilian sector because their primary care providers were unfamiliar or uncomfortable with PrEP administration.[19] ID specialists are typically unavailable at smaller health facilities where most service members seek PrEP, and national guidelines specify that sexual health activities such as PrEP should be addressed in the primary care setting.[11,14]

Limitations in MHS providers' capacities to provide PrEP care has placed additional burdens on MSM service members, including the need to advocate for their own acceptance as well as educating their own health care providers, which has led some to seek medical care outside the MHS.[26] In the transition period after the 2010 repeal of the "Don't Ask Don't Tell" policy, many active duty MSM patients preferred to receive care at civilian health facilities for STI evaluation and treatment due to their fear of reprisal for their sexual orientation.[27] Recent studies show that 20% of MSM service members continue to access health care from civilian providers.[19] Some MSM service members have experienced these systemic factors and individual MHS providers' lack of knowledge, experience, and comfort as stigmatizing attitudes and biases.[19] In addition, some MSM service members have concerns that disclosing their sexual orientation to their chain of command may have negative professional implications.[26] While such experiences may be the exception, they can result in a lack of trust that inhibits frank communication with MHS providers and impedes PrEP use among service members.[19,26] Further systemic study of HIV prevention and PrEP practices throughout the MHS is needed, along with dissemination of best practices and identification of locations for targeted attention.

In addition to the disparities between HIV risk and PrEP use among MSM, racial and ethnic disparities have been seen in both civilian and military populations, as well as among enlisted and younger service members who may be both at higher risk and less able to access care.[20] Although persons of Black race or ethnicity are estimated to account for approximately 40% of those in the U.S. with indications for PrEP, civilian national data indicate that PrEP coverage among White individuals was approximately 7 times higher than among Black individuals and 3.5 times higher among Hispanics.[28] Similarly, a previous DOD study suggested that Black MSM service members were less likely to receive PrEP than their White counterparts.[21] A more recent study, however, found, compared to Whites, that Black and LatinX MSMs in the U.S. military were more than 3 times more likely to have been prescribed PrEP.[29] Other disparities in PrEP use have also been demonstrated, with service members who were enlisted, younger, serving in the National Guard (compared

to the active component), and bisexual shown to have lower use of PrEP.[29]

Several barriers to effective implementation of PrEP services have been recognized within the MHS. Frequent transfers of active duty military providers can lead to fragmented care for a service that then requires development of a comfortable patient-provider relationship to be successful. Significant budget restrictions had historically affected procurement of Truvada and Descovy, but recent availability of generic emtricitabine-tenofovir disoproxil has made this less of a concern. Smaller facilities with limited pharmacy, laboratory and diagnostics capabilities may also struggle to adhere to CDC guidelines regarding PrEP management. While current policy does not specifically restrict deployment of service members who are taking PrEP, ability to re-supply varies based on the location and it is advised that the individual stop taking PrEP, adhere to safe sex practices with condom use, and be re-evaluated for PrEP re-initiation upon redeployment. Current military guidance in Defense Health Agency-Procedural Instruction (DHA-PI) 6025.29 requires MHS facilities to "offer a pathway for access to PrEP…," and the link to the DHA PrEP toolkit is found in the glossary (part II).[30] The DHA-PI does not, however, mandate that resources be allocated to ensure effective delivery of PrEP at all military treatment facilities in accordance with current CDC guidelines.[19]

Policy Options and Anticipated Outcomes

1. Passive PrEP implementation (status quo)

This option is the most feasible because it requires no change, with the least impact on both the care outcomes and population health and readiness. With this option, the slow rate of increase of PrEP coverage in the MHS is expected to persist, and increasingly lag behind the civilian population due to anticipated continued increases in civilian implementation resulting from the ACA requirement for insurers to cover USPSTF "A" recommendations. Service members' experience of care will continue to be dependent upon resources available at each MHS facility and local provider care preferences. While passive implementation provides the cheapest policy option, a relatively poor value may be realized in comparison to other cost-effective policy options—i.e., relatively inexpensive interventions are expected to make a substantial impact on PrEP use in the U.S. military.

2. Initiate a campaign to improve sexual health, HIV, and PrEP education of service members and providers

With this policy option, the MHS would create a systemic plan for a campaign on sexual health, HIV, and PrEP to educate care providers, service members, and other MHS beneficiaries through social media, websites, brochures, posters and displays, and other printed materials. Effective patient health literacy and provider training on sexual health in general, and HIV and PrEP care specifically, are widely available for immediate use or adaptation and dissemination (see resources below).[11,31,32] The MHS would promote trust among MSM service members by fostering an environment, both physical and cultural, that is welcoming and inclusive for MSM patients, with "gain-based" stigma reduction campaigns.[16] The MHS would address disparities in PrEP administration by ensuring culturally competent care, engagement with both MSM communities and communities of color, with education and communication targeted to ensure racial and ethnic inclusion. Provider training would focus on standardizing primary care, and would include on-demand slides for provider training on HIV risk and PrEP guidelines, modifiable materials for patients and providers including decision support tools, infographics and communication tools, along with other resources. The ID, public health, and MSM communities would play a strong supporting role in this effort by advocating for and engaging in this training to ensure all PrEP activities are of high quality and coordinated. This option would be expected to have a substantial impact in reducing stigma, reducing health disparities, and improving the experience of care by promoting an inclusive environment and educating providers. Similar to other "education only" interventions, however, its impact on force health protection and readiness is expected to be small without other concomitant structural changes.[33] For these reasons, while the cost and feasibility are both also relatively good, the value of this option is moderate due to the limited return on investment in readiness.

3. Expansion of standardized PrEP services in primary care, public health, and other settings

Under this option, DHA-PI 6025.29 would be updated to both fully endorse and require implementation of services that promote and affect PrEP use in the MHS, specifically standardizing the requirement to provide it as part of primary care, with support from ID and public health. This option would not just "offer…a pathway" for PrEP services but actively reduce administrative and structural barriers to care by requiring implementation of well-described and recommended services, including provider training; telehealth options; same-day PrEP prescribing; augmented by decision support tools; adherence support; use of health extension workers such as public health nurses, independent duty corpsmen, and pharmacists to increase capacity; and other innovative strategies. Expedited laboratory testing for HIV infection and the 3-site (throat, rectum, urine) gonorrhea and chlamydia nucleic acid amplification testing (NAAT) required for PrEP implementation would have additional benefits for STI control and prevention among military service members. The DHA would create a PrEP implementation checklist establishing expectations for capabilities as well as clear roles and responsibilities at military installations. DHA would further establish a mechanism to ensure accountability for the execution of these requirements and expectations. This option would be expected to have a substantial impact on population health and readiness by greatly expanding PrEP services and access. This option would likely allow greater access to partially address and affect disparities in underserved populations but would not address the underlying stigma they experience, so its impact on the experience of care

would be moderate. It would also require a substantial amount of funding and personnel resources, reducing its feasibility and value.

4. Screening and targeted PrEP interventions during the Periodic Health Assessment (PHA)

Annual screening during the PHA has already been implemented using risk factor questions similar to those described in national PrEP guidelines.[11] This mechanism could be linked to offering same-day HIV PrEP to those for whom it is indicated, in addition to informatics tools that would send targeted information via text and email, to promote health literacy as well as PrEP service access. However, this intervention would need oversight from DHA's public health and privacy offices to ensure that both program objectives and privacy considerations can be met, typically through a case use analysis.[34] This option is expected to affect population health and readiness by identifying service members at high risk for HIV acquisition during the PHA and immediately thereafter starting PrEP, as well as providing additional information about PrEP and how to access it. Since service members are often hesitant, however, to respond truthfully about sensitive subject such as sexual behaviors on the PHA, the impact of this option is expected to be moderate. Its impact on the experience of care would likely be minimal, as it may not alter the underlying stigma experienced by service members at highest risk. Its feasibility would be moderate, due to the effort required not only for its inclusion in the PHA, but also in ensuring its implementation by providers and service members. Once implemented, however, it would be a good value, as the incremental resources needed to implement screening as part of the PHA would be minimal but with moderate impact. This strategy could also be further augmented through use of risk prediction tools from data extracted from MHS electronic records, as in civilian populations.[12] More research is needed in PrEP implementation and tools in military populations, including the creation of risk prediction tools by applying machine learning to MHS electronic health records.

5. Phased implementation of all interventions

Under this option, all previously-described interventions would be implemented in a phased approach, beginning with capacity-building for delivery of PrEP services, rapidly followed by initiation of a campaign to improve services, then utilizing those prior phases to expand service implementation during the PHA. As this option includes all the benefits of each assessed intervention, it provides the greatest potential impact for population health, readiness, and the experience of care. Although the most resource-intensive option, it may offer the best value, as the effectiveness of each intervention is expected to be enhanced through concomitant implementation of the other interventions. It is the least feasible of any of the options, however, as it requires a sustained commitment by the MHS and the U.S. military in general to commit resources necessary to both implement the requisite interventions and engender a cultural shift in HIV care.

Recommendation

Phased implementation of all interventions

A coordinated campaign should be implemented using the phased approach described, starting by building capacities for PrEP service delivery, immediately followed by a campaign to improve services, then utilizing the prior phases to expand implementation of those services during the PHA. While it also requires the largest amount of resources and is the most difficult to implement, implementation of a comprehensive program would be expected to have the greatest impact

TABLE. Policy Analysis Comparison

	Impact on Population Health and Readiness[a]	Feasibility	Value (Cost Effectiveness)	Impact on Experience of Care	Total
Scoring Classification:	3=High or More Favorable;	2=Medium;	1=Low or Less Favorable		
Continue passive implementation (status quo)	2	3	1	1	7
Initiate campaign to improve sexual health, HIV, and PrEP education of providers and service members	2	2	2	3	9
Screening and targeted PrEP interventions during PHA	4	2	3	1	10
Expand PrEP services	6	1	2	2	11
Phased implementation of all interventions	6	1	3	3	13

Abbreviations: PHA, Periodic Health Assessment; PrEP, HIV Pre-Exposure Prophylaxis.
[a] Weight=2

on the MHS quadruple aim, including population health, readiness, and the experience of care. It also provides the best value, due to the enhancement of program efficacy expected when implementing interventions in coordination rather than individually, and it makes the most substantial contribution to the national objective of 90% reduction in HIV incidence by 2030.[7]

Regardless of which policy options are selected, the DHA should ensure accountability for successful, efficient, and effective implementation by continuously evaluating implementation activities and impacts of the policy change, and use these evaluations to guide subsequent interventions and policy development.

Available Resources

Several resources are currently available for PrEP implementation:

- A DHA toolkit that includes information and resources needed to develop a PrEP program is available at: https://www.health.mil/Military-Health-Topics/MHS-Toolkits/Toolkits/HIV-PrEP-Toolkit
- Military Guidance on Gay and Bisexual Men's Health Care is available at: https://www.med.navy.mil/Navy-and-Marine-Corps-Force-Health-Protection-Command/Population-Health/Health-Promotion-and-Wellness/Reproductive-and-Sexual-Health/Gay-and-Bisexual-Mens-Sexual-Health
- CDC's HIV PrEP toolkit is available at: https://www.cdc.gov/hivnexus/hcp/prep/index.html
- The CDC has compiled a list of PrEP interventions and best practices at: https://www.cdc.gov/hiv/research/interventionresearch/compendium/prep/complete-list.html
- The USPSTF has developed a "Let's Talk About It" guide for clinicians and patients about the use of HIV PrEP: https://www.uspreventiveservicestaskforce.org/uspstf/sites/default/files/inline-files/hiv-prep-prevention-discussion-guide.pdf
- A digital toolkit is available at: https://www.cdc.gov/stophivtogether/partnerships/toolkit/august-2021-toolkit.html
- PrEPline: National Clinician's Consultation Center is found at: https://nccc.ucsf.edu/clinician-consultation/prep-pre-exposure-prophylaxis
- Integrating HIV Care, Treatment & Prevention Services into Primary Care–A Toolkit for Health Centers can be found at: https://bphc.hrsa.gov/media/p4c-toolkit-2018.pdf
- The AIDS Education Training Centers National Resource Centers are at: https://aidsetc.org
- HIV Info is available at: https://hivinfo.nih.gov/home-page

Author Affiliations
Department of Preventive Medicine and Biostatistics, School of Medicine, Uniformed Services University of the Health Sciences, Bethesda, MD: Dr. Mancuso, Dr. Agan; Department of Medicine, Walter Reed National Military Medical Center, Bethesda: Dr. Blaylock; 20th CBRNE Command, Edgewood, MD: Dr. Robinson; Henry M. Jackson Foundation for the Advancement of Military Medicine, Inc., Bethesda: Dr. Agan

Disclaimer
The opinions and assertions expressed herein are those of the authors and do not reflect the official policy nor position of the Uniformed Services University of the Health Sciences or the Department of Defense.

References

1. Smith DJ, Bono RC, Slinger BJ. Transforming the Military Health System. *JAMA*. 2017;318(24):2427-2428. doi:10.1001/jama.2017.16718
2. Office of the Under Secretary of Defense for Personnel and Readiness. DoD Instruction 6485.01: Human Immunodeficiency Virus (HIV) in Military Service Members. U.S. Dept. of Defense. Updated Jun. 6, 2022. Accessed Nov. 4, 2023. https://www.esd.whs.mil/portals/54/documents/dd/issuances/dodi/648501p.pdf
3. Armed Forces Health Surveillance Division. Update: routine screening for antibodies to human immunodeficiency virus, U.S. Armed Forces, active and reserve components, January 2018-June 2023. *MSMR*. 2023;30(9):2-10.
4. Centers for Disease Control and Prevention. Estimated HIV incidence and prevalence in the United States 2017–2021. U.S. Dept. of Health and Human Services. Updated May 23, 2023. Accessed Nov. 4, 2023. https://www.cdc.gov/hiv/library/reports/hiv-surveillance/vol-28-no-3/index.html
5. Mancuso JD, Mabila SL. A comparison of the rate of HIV incidence in the active component U.S. military with the U.S. population in 2021. *MSMR*. 2024;31(3):18-19.
6. Centers for Disease Control and Prevention. Estimated HIV incidence and prevalence in the United States, 2018-2022. *HIV Surveillance Supplemental Report*. 2024;29(1). U.S. Dept. of Health and Human Services. Accessed Sep. 18, 2024. https://www.cdc.gov/hiv-data/nhss/estimated-hiv-incidence-and-prevalence.html
7. The White House. National HIV/AIDS Strategy for the United States 2022-2025. Accessed Jul. 9, 2023. https://files.hiv.gov/s3fs-public/NHAS-2022-2025.pdf
8. Kime P. Federal judge rules Defense Department can't ban HIV-positive people from joining the military. *Military.com*. Updated Aug. 23, 2024. Accessed Aug. 26, 2024. https://www.military.com/daily-news/2024/08/23/military-cant-keep-hiv-positive-americans-enlisting-federal-judge-rules.html
9. Meadows SO, Engel CC, Collins RL, et al. *2018 Department of Defense Health Related Behaviors Survey (HRBS): Results for the Active Component*. RAND Corporation;2021. Accessed Aug. 28, 2022, https://www.rand.org/pubs/research_reports/RR4222.html
10. U.S. Preventive Services Task Force, Krist AH, Davidson KW, et al. Behavioral counseling interventions to prevent sexually transmitted infections: US Preventive Services Task Force recommendation statement. *JAMA*. 2020;324(7):674-681. doi:10.1001/jama.2020.13095
11. U.S. Public Health Service. *Preexposure Prophylaxis for the Prevention of HIV Infection in the United States–2021 Update: A Clinical Practice Guideline*. Centers for Disease Control and Prevention;2021. Accessed Jul. 9, 2023. https://www.cdc.gov/hiv/pdf/risk/prep/cdc-hiv-prep-guidelines-2021.pdf
12. Chou R, Spencer H, Bougatsos C, et al. Preexposure prophylaxis for the prevention of HIV: updated evidence report and system-

atic review for the US Preventive Services Task Force. *JAMA*. 2023;330(8):746-763. doi:10.1001/jama.2023.9865
13. Bavinton BR, Grulich AE. HIV pre-exposure prophylaxis: scaling up for impact now and in the future. *Lancet Public Health*. 2021;6(7):e528-e533. doi:10.1016/S2468-2667(21)00112-2
14. U.S. Preventive Services Task Force, Barry MJ, Nicholson WK, et al. Preexposure prophylaxis to prevent acquisition of HIV: US Preventive Services Task Force recommendation statement. *JAMA*. 2023;330(8):736-745. doi:10.1001/jama.2023.14461
15. Mancuso JD, Ahmed AE. Coverage of HIV preexposure prophylaxis (PrEP) within the active duty U.S. military, 2023. *MSMR*. 2024;31(3):13-16.
16. Sullivan PS, Mena L, Elopre L, Siegler AJ. Implementation strategies to increase PrEP uptake in the south. *Curr HIV/AIDS Rep*. 2019;16(4):259-269. doi:10.1007/s11904-019-00447-4
17. Office of Infectious Disease and HIV/AIDS Policy. Ending the HIV Epidemic Funding. Dept. of Health and Human Services. Updated Apr. 24, 2024. Accessed Aug. 5, 2024. https://www.hiv.gov/federal-response/ending-the-hiv-epidemic/funding
18. Centers for Disease Control and Prevention. *CDC's Policy Analytical Framework*. U.S. Dept. of Health and Human Services;2013. Accessed Sept. 16, 2024. https://www.cdc.gov/polaris/php/policy-resources-trainings/policy-analytical.html#:~:text=The%20policy%20analytical%20framework%20(Figure,policies%20that%20can%20improve%20health
19. Beltran RM, Schuyler AC, Blair CS, et al. "That's kind of like the big struggle right now is can we get PrEP?": facilitators and barriers to PrEP uptake among active duty gay and bisexual men. *Sex Res Social Policy*. 2023;20(2):413-425. doi:10.1007/s13178-021-00622-6
20. Mancuso JD, Young J, Rusiecki J, et al. Advancing health equity in the US Military. *J Health Dispar Res Prac.* 2023;16(1):38-50. https://digitalscholarship.unlv.edu/jhdrp/vol16/iss1/3
21. Blaylock JM, Hakre S, Okulicz JF, et al. HIV preexposure prophylaxis in the U.S. military services–2014-2016. *MMWR Morb Mortal Wkly Rep*. 2018;67(20):569-574. doi:10.15585/mmwr.mm6720a1
22. Staten MC, Webster A, Carter G. Do ask, do tell: understanding disclosure of sexuality and implications among MSM active duty service members. *Mil Med*. 2022; 188(7-8):1656-1663. doi:10.1093/milmed/usac209
23. Gutierrez JI, Dubov A, Altice FL, Vlahov D. Preferences for pre-exposure prophylaxis among U.S. military men who have sex with men: results of an adaptive choice based conjoint analysis study. *Mil Med Res*. 2021;8(1):32. doi:10.1186/s40779-021-00323-6
24. Rerucha CM, Runser LA, Ee JS, Hersey EG. Military healthcare providers' knowledge and comfort regarding the medical care of active duty lesbian, gay, and bisexual patients. *LGBT Health*. 2018;5(1):86-90. doi:10.1089/lgbt.2016.0210
25. Wilson K, Beckett CG, Blaylock JM, et al. Provider knowledge gaps in HIV PrEP affect practice patterns in the US Navy. *Mil Med*. 2020;185(1-2):e117-e124. doi:10.1093/milmed/usz131
26. McNamara KA, Lucas CL, Goldbach JT, Holloway IW, Castro CA. "You don't want to be a candidate for punishment": a qualitative analysis of LGBT service member "outness". *Sex Res Social Policy*. 2021;18:144-159. doi:10.1007/s13178-020-00445-x
27. Biddix JM, Fogel CI, Perry Black B. Comfort levels of active duty gay/bisexual male service members in the military healthcare system. *Mil Med*. 2013;178(12):1335-1340. doi:10.7205/milmed-d-13-00044
28. Centers for Disease Control and Prevention. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data–United States and 6 dependent areas, 2021. *HIV Surveillance Supplemental Report.* 2021;8(4). U.S. Dept. of Health and Human Services. Accessed Sep. 18, 2024. https://stacks.cdc.gov/view/cdc/160195
29. Carter G, Staten IC, Woodward B, Mahnke B, Campbell J. PrEP prescription among MSM U.S. military service members: race and sexual identification matter. *Am J Mens Health*. 2022;16(6):15579883221133891. doi:10.1177/15579883221133891
30. Defense Health Agency. Procedural Instruction 6025.29: Provision of Human Immunodeficiency Virus (HIV) Pre-Exposure Prophylaxis (PrEP) for Persons at High Risk of Acquiring HIV Infection. U.S. Dept. of Defense. Updated Dec. 20, 2019. Accessed Nov. 19, 2023. https://www.health.mil/Reference-Center/DHA-Publications/2019/12/20/DHA-PI-6025-29
31. Navy and Marine Corps Force Health Protection Command. Gay and Bisexual Men's Sexual Health. U.S. Dept. of Defense. Accessed Nov. 25, 2023. https://www.med.navy.mil/Navy-and-Marine-Corps-Force-Health-Protection-Command/Population-Health/Health-Promotion-and-Wellness/Reproductive-and-Sexual-Health/Gay-and-Bisexual-Mens-Sexual-Health
32. National Center for HIV VH, STD, and TB Prevention. How Do I Prescribe PrEP? Centers for Disease Control and Prevention, U.S. Dept. of Health and Human Services. Updated Oct. 5, 2023. Accessed Nov. 25, 2023. https://www.cdc.gov/hiv/clinicians/prevention/prescribe-prep.html
33. Frieden TR. A framework for public health action: the health impact pyramid. *Am J Public Health*. 2010;100(4):590-595. doi:10.2105/AJPH.2009.185652
34. National Alliance of State and Territorial AIDS Directors. *Connections: From Health Informatics to Improved HIV Outcomes*. National Alliance of State and Territorial AIDS Directors, Centers for Disease Control and Prevention;2014. Accessed Sep. 16, 2024. https://nastad.org/sites/default/files/2023-07/PDF-Connections-Final.pdf

Surveillance Snapshot

Prevalence of Hepatitis A and B Antibodies Among Enlisted Accessions, Joint Base San Antonio-Lackland, 2023

Devin C. Kelly, DO, MPH&TM; Susan J. Ching, DO, MPH; Theresa Casey, DVM, MPH; Angela Osuna, MPH; Ga On Jung, MPH; Erin L. Winkler, MD, MPH; David R. Sayers, MD, MTM&H

TABLE. Prevalence of Hepatitis A Immunoglobulin G and Hepatitis B Surface Antibody by Demographic Characteristics Among Enlisted Accessions, Joint Base San Antionio-Lackland, 2023

	Hepatitis A Immunoglobulin G					Hepatitis B Surface Antibody				
	Negative		Positive		Total	Negative		Positive		Total
	No.	%	No.	%	No.	No.	%	No.	%	No.
Total	5,644	18.7	24,556	81.3	30,200	21,305	70.6	8,884	29.4	30,189
Age[a]	23.5 (17-41)		20.7 (17-41)		21.2 (17-41)	20.8 (17-41)		22.1 (17-41)		21.2 (17-41)
Sex										
Male	4,466	19.2	18,782	80.8	23,248	16,551	71.2	6,688	28.8	23,239
Female	1,178	16.9	5,774	83.1	6,952	4,754	68.4	2,196	31.6	6,950
Race and ethnicity										
Native Hawaiian or Pacific Islander	108	16.7	539	83.3	647	461	71.3	186	28.7	647
American Indian or Alaska Native	53	10.6	449	89.4	502	355	70.7	147	29.3	502
Black or African American	1,309	19.8	5,307	80.2	6,616	4,315	65.3	2,295	34.7	6,610
White	3,515	18.8	15,175	81.2	18,690	13,690	73.3	4,996	26.7	18,686
Asian	338	18.6	1,477	81.4	1,815	1,128	62.2	686	37.8	1,814
Other	240	16.4	1,225	83.6	1,465	1,023	69.8	442	30.2	1,465
Unknown	81	17.4	384	82.6	465	333	71.6	132	28.4	465

Abbreviation: No., number.
[a] Mean age and range.

The first hepatitis B virus (HBV) vaccine was licensed by the U.S. Food and Drug Administration (FDA) in 1982, and the Advisory Committee on Immunization Practices (ACIP) recommended universal infant HBV immunization in 1991.[2,3] The U.S. Department of Defense (DOD) required HBV immunization for all military accessions in 2002. In contrast, DOD mandated hepatitis A virus (HAV) immunization for all accessions in 1995, the same year the FDA licensed the vaccine. Initially, ACIP recommended HAV vaccination for children only in states with high HAV incidence rates; however, ACIP expanded this recommendation to include universal pediatric HAV immunization (ages 12-23 months) in 2006.[1]

The Department of the Air Force performs universal antibody serology testing for hepatitis B surface antibody (anti-HBs) and hepatitis A immunoglobulin G (IgG anti-HAV) among enlisted recruits presenting to basic military training (BMT) at Joint Base San Antonio (JBSA)-Lackland. These results, along with previous vaccination records, if available at the time of accession, guide HBV and HAV vaccination during BMT. Previous studies indicate that HBV titers wane in most adolescents and young adults, [2,5,6] while HAV immunization induces a long-lasting IgG response, persisting for at least 10 to 20 years.[4]

Data from January 1, 2023, through December 31, 2023, in the electronic health record, MHS-GENESIS, was used for this analysis. At JBSA-Lackland, 30,200 recruits were screened for HAV antibodies (81.3% positive), with the prevalence exceeding 80% in both men and women and in all races and ethnicities **(Table)**. American Indians or Alaska Natives (89.4%) showed the highest prevalence of HAV-positive serology by race and ethnicity, and women (83.1%) were higher than men (80.8%). Trainees with positive IgG anti-HAV results were, on average, younger (20.7 years) than those with negative HAV serology (23.5 years). For HBV, 30,189 trainees completed screening (29.4% positive). Asians (37.8%) showed the highest prevalence of HBV-positive serology by race and ethnicity. Women (31.6%) had a higher prevalence of HBV-positive serology than men (28.8%). Trainees with positive anti-HBs screening results were, on average, older (22.1 years) than those with negative HBV serology (20.8 years).

This analysis shows a much higher prevalence of HAV antibodies compared to HBV in the trainee population at JBSA-Lackland during 2023. Trainees negative for anti-HBs may have never been vaccinated, were non-responders to HBV vaccination, or had waning anti-HBs titers. These data are consistent with published studies demonstrating that 75-93% of adolescents and young adults who were vaccinated as infants have anti-HBs levels under 10 mIU/mL.[2,5,6] Young adults who completed the HBV vaccine series as infants may not, however, need to be revaccinated due to persistent memory cell immunity.[7] In contrast, the HAV vaccine series induces a long-lasting, measurable IgG response.[4] Prior *MSMR* reports describe HAV and HBV antibody positivity in U.S. Army enlisted accessions.[8,9] This Surveillance Snapshot updates results for 2023 in a similar population, enlisted recruits at JBSA-Lackland. The data presented herein were reviewed by the 59th Medical Wing Institutional Review Board, and there is no objection to its publication.

Author Affiliations
Uniformed Services University of the Health Sciences, Department of Preventive Medicine and Biostatistics, Bethesda, MD: Maj Kelly, Maj Ching, Lt Col Winkler, Lt Col Sayers; Trainee Health Surveillance, Joint Base San Antonio-Lackland, TX: Dr. Casey, Ms. Osuna, Ms. Jung, Lt Col Winkler

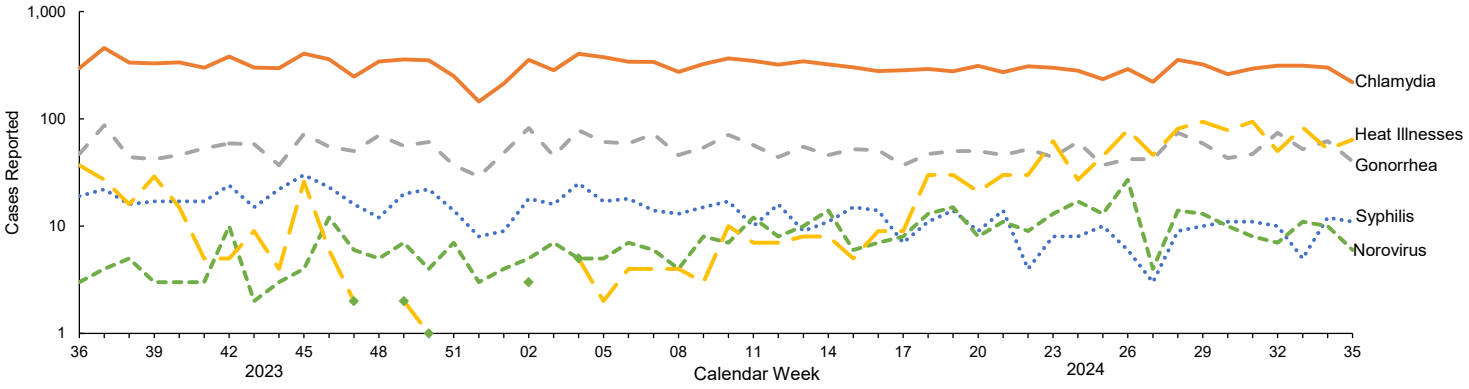
REFERENCES

1. Nelson NP, Weng MK, Hofmeister MG, et al. Prevention of hepatitis A virus infection in the United States: recommendations of the Advisory Committee on Immunization Practices, 2020. *MMWR Morb Mortal Wkly Rep*. 2020;69(5):1-38. doi:10.15585/mmwr.rr6905a1
2. Schillie S, Murphy TV, Sawyer M, et al. CDC guidance for evaluating health-care personnel for hepatitis B virus protection and for administering postexposure management. *MMWR Morb Mortal Wkly Rep*. 2013;62(Rr-10):1-19.
3. Mast EE, Margolis HS, Fiore AE, et al. A comprehensive immunization strategy to eliminate transmission of hepatitis B virus infection in the United States: recommendations of the Advisory Committee on Immunization Practices (ACIP) part 1: immunization of infants, children, and adolescents. *MMWR Morb Mortal Wkly Rep*. 2005;54(Rr-16):1-31.
4. Herzog C, Van Herck K, Van Damme P. Hepatitis A vaccination and its immunological and epidemiological long-term effects–a review of the evidence. *Hum Vaccin Immunother*. 2021;17(5):1496-1519. doi:10.1080/21645515.2020.1819742
5. Wang CW, Wang LC, Chang MH, et al. Long-term follow-up of hepatitis B surface antibody levels in subjects receiving universal hepatitis B vaccination in infancy in an area of hyperendemicity: correlation between radioimmunoassay and enzyme immunoassay. *Clin Diagn Lab Immunol*. 2005;12(12):1442-1447. doi:10.1128/cdli.12.12.1442-1447.2005
6. Al Ateeq MA, Al Enazi LM, Al Shammari MS, et al. Long-term immunity against hepatitis B virus after routine immunization among adults visiting primary care centers in Riyadh, Saudi Arabia. *Cureus*. 2022;14(1):e21266. doi:10.7759/cureus.21266
7. Bruce MG, Bruden D, Hurlburt D, et al. Antibody levels and protection after hepatitis B vaccine: results of a 30-year follow-up study and response to a booster dose. *J Infect Dis*. 2016;214(1):16-22. doi:10.1093/infdis/jiv748
8. Green D. Hepatitis B immunity among U.S. Army basic trainees, Fort Leonard Wood, MO, July 2005-December 2005. *MSMR*. 2006;12(5):7-8.
9. Eick A, Hu Z, Wang Z, Hughes H, Remington N. Hepatitis A immunity among enlisted accessions to the U.S. Army, Fort Benning, GA, April-August 2006. *MSMR*. 2006;12(7):18-20.

Reportable Medical Events at Military Health System Facilities Through Week 35, Ending August 31, 2024

Matthew W. R. Allman, MPH; Anthony R. Marquez, MPH; Katherine S. Kotas, MPH; Idalia Aguirre, MPH

TOP 5 REPORTABLE MEDICAL EVENTS BY CALENDAR WEEK, ACTIVE COMPONENT (SEPTEMBER 3, 2023 - AUGUST 31, 2024)



Abbreviation: RMEs, reportable medical events.

Note: There were 0 heat illness cases in the following weeks in 2023: 48, 51-52, and weeks 1 and 3 in 2024. Markers added to represent instances of heat illnesses that were not visible on the logarithmic scale graph.

Reportable Medical Events (RMEs) are documented in the Disease Reporting System internet (DRSi) by health care providers and public health officials throughout the Military Health System (MHS) for monitoring, controlling, and preventing the occurrence and spread of diseases of public health interest or readiness importance. These reports are reviewed by each service's public health surveillance hub. The DRSi collects reports on over 70 different RMEs, including infectious and non-infectious conditions, outbreak reports, STI risk surveys, and tuberculosis contact investigation reports. A complete list of RMEs is available in the *2022 Armed Forces Reportable Medical Events Guidelines and Case Definitions*.[1] Data reported in these tables are considered provisional and do not represent conclusive evidence until case reports are fully validated.

Total active component cases reported per week are displayed for the top 5 RMEs for the previous year. Each month, the graph is updated with the top 5 RMEs, and is presented with the current month's (August 2024) top 5 RMEs, which may differ from previous months. COVID-19 is excluded from these graphs due to changes in reporting and case definition updates in 2023.

For questions about this report, please contact the Disease Epidemiology Branch at the Defense Centers for Public Health–Aberdeen. Email: dha.apg.pub-health-a.mbx.disease-epidemiologyprogram13@health.mil

Authors' Affiliation: Defense Health Agency, Disease Epidemiology Branch, Defense Centers for Public Health–Aberdeen

References

1. Armed Forces Health Surveillance Division. Armed Forces Reportable Medical Events. Accessed Feb. 28, 2024. https://health.mil/Reference-Center/Publications/2022/11/01/Armed-Forces-Reportable-Medical-Events-Guidelines
2. Defense Manpower Data Center. Department of Defense Active Duty Military Personnel by Rank/Grade of Service. Accessed Feb. 28, 2024. https://dwp.dmdc.osd.mil/dwp/app/dod-data-reports/workforce-reports
3. Defense Manpower Data Center. Armed Forces Strength Figures for January 31, 2023. Accessed Feb. 28, 2024. https://dwp.dmdc.osd.mil/dwp/app/dod-data-reports/workforce-reports
4. Navy Medicine. Surveillance and Reporting Tools–DRSI: Disease Reporting System Internet. Accessed Feb. 28, 2024. https://www.med.navy.mil/Navy-Marine-Corps-Public-Health-Center/Preventive-Medicine/Program-and-Policy-Support/Disease-Surveillance/DRSI

TABLE. Reportable Medical Events, Military Health System Facilities, Week Ending August 31, 2024 (Week 35)[a]

Reportable Medical Event[b]	Active Component[c]					MHS Beneficiaries[d]
	July 2024	August 2024	YTD 2024	YTD 2023	Total, 2023	August 2024
	No.	No.	No.	No.	No.	No.
Amebiasis	0	1	8	12	15	1
Arboviral diseases, neuroinvasive and non-neuroinvasive	1	1	2	2	2	0
Botulism	0	0	0	0	0	1
Brucellosis	0	1	1	0	0	0
COVID-19-associated hospitalization and death[e]	3	11	36	73	113	61
Campylobacteriosis	51	27	227	205	270	21
Chikungunya virus disease	0	0	0	2	2	0
Chlamydia trachomatis	1,343	1,249	10,634	11,965	17,511	189
Cholera	1	0	2	4	4	1
Coccidioidomycosis	5	2	42	18	36	1
Cold weather injury[f]	0	1	134	102	152	N/A
Cryptosporidiosis	9	12	62	53	67	5
Cyclosporiasis	6	1	8	15	15	5
Dengue virus infection	4	2	11	4	7	2
E. coli, Shiga toxin-producing	11	11	60	47	69	9
Ehrlichiosis/Anaplasmosis	0	1	2	28	28	0
Giardiasis	12	9	69	53	78	5
Gonorrhea	252	240	1,880	1,849	2,763	30
Haemophilus influenzae, invasive	0	0	3	1	1	0
Hantavirus disease	0	0	0	1	2	0
Heat illness[f]	338	300	1,084	1,066	1,254	N/A
Hepatitis A	1	0	5	6	8	1
Hepatitis B, acute and chronic	9	9	75	103	155	12
Hepatitis C, acute and chronic	1	6	24	38	52	3
Influenza-associated hospitalization[g]	1	1	37	6	29	2
Lead poisoning, pediatric[h]	N/A	N/A	N/A	N/A	N/A	15
Legionellosis	0	1	4	3	5	2
Leishmaniasis	0	0	0	1	1	0
Leprosy	0	0	0	2	2	0
Leptospirosis	0	0	0	3	4	0
Lyme disease	15	13	73	51	70	7
Malaria	3	5	12	15	28	0
Meningococcal disease	0	0	0	2	4	0
Mpox	1	0	9	0	5	0
Norovirus	46	37	332	333	420	31
Pertussis	5	3	18	4	15	6
Post-exposure prophylaxis against Rabies	66	45	412	412	598	46
Q fever	0	0	0	2	2	0
Rubella	0	0	0	2	2	0
Salmonellosis	12	21	94	67	129	27
Shigellosis	4	5	37	48	59	3
Spotted Fever Rickettsiosis	0	5	17	29	31	1
Syphilis (all)	39	43	410	626	945	14
Toxic shock syndrome	0	0	2	1	2	0
Trypanosomiasis	1	0	2	1	1	0
Tuberculosis	0	0	2	8	11	1
Tularemia	0	0	1	1	1	0
Typhoid fever	0	1	1	1	2	0
Typhus fever	0	0	1	3	3	0
Varicella	1	1	11	8	12	1
Zika virus infection	0	0	1	0	0	0
Total case counts	2,241	2,065	15,845	17,276	24,985	503

Abbreviations: MHS, Military Health System; YTD, year-to-date; no., number; *E., Escherichia*; N/A, not applicable.

[a] RMEs reported through the DRSi as of Sep. 24, 2024 are included in this report. RMEs were classified by date of diagnosis or, where unavailable, date of onset. Monthly comparisons are displayed for the period of Jun. 1, 2024–Jul. 31, 2024 and Aug. 1, 2024–Aug. 31, 2024. YTD comparison is displayed for the period of Jan. 1, 2024–Aug. 31, 2024 for MHS facilities. Previous year counts are provided as the following: previous YTD, Jan. 1, 2023-Aug. 31, 2023; total 2023, Jan. 1, 2023–Dec. 31, 2023.

[b] RME categories with 0 reported cases among active component service members and MHS beneficiaries for the time periods covered were not included in this report.

[c] Services included in this report include the Army, Navy, Air Force, Marine Corps, Coast Guard, and Space Force, including personnel classified as FMP 20 with duty status of Active Duty, Recruit, or Cadet in DRSi.

[d] Beneficiaries included the following: individuals classified as FMP 20 with duty status of Retired and individuals with all other FMPs except 98 and 99. Civilians, contractors, and foreign nationals were excluded from these counts.

[e] Only cases reported after case definition update on May 4, 2023. Includes only cases resulting in hospitalization or death. Does not include cases of hospitalization or death reported under the previous COVID-19 case definition.

[f] Only reportable for service members.

[g] Influenza-associated hospitalization is reportable only for individuals under 65 years of age.

[h] Pediatric lead poisoning is reportable only for children aged 6 years or younger.

[i] The observed drop in syphilis cases from 2023 to 2024 may be due, in part, to an updated case validation process that began in January 2024.

The ***Medical Surveillance Monthly Report (MSMR)***, in continuous publication since 1995, is produced by the Armed Forces Health Surveillance Division (AFHSD) of the Defense Health Agency (DHA) Public Health Directorate. AFHSD is a designated public health authority within the Defense Health Agency. The *MSMR* provides evidence-based estimates of the incidence, distribution, impact, and trends of illness and injuries among U.S. military members and associated populations. Most reports in the *MSMR* are based on summaries of medical administrative data routinely provided to AFHSD and integrated within the Defense Medical Surveillance System for health surveillance purposes.

- *Archive:* Past issues of the *MSMR* are available as downloadable PDF files at www.health.mil/MSMRArchives.
- *Online Subscriptions:* Submit subscription requests at www.health.mil/MSMRSubscribe.
- *Editorial Inquiries*: Call (301) 319-3240 or email dha.ncr.health-surv.mbx.msmr@health.mil.
- *Instructions for Authors:* Information about article submissions is provided at www.health.mil/MSMRInstructions.

Follow us:

Facebook: https://www.facebook.com/AFHSDPAGE/

Twitter: https://twitter.com/AFHSDPAGE

ISSN 2158-0111 (print)

ISSN 2152-8217 (online)

Medical Surveillance Monthly Report (MSMR)
Defense Health Agency—Public Health
Armed Forces Health Surveillance Division
11800 Tech Road, Suite 220
Silver Spring, MD 20904