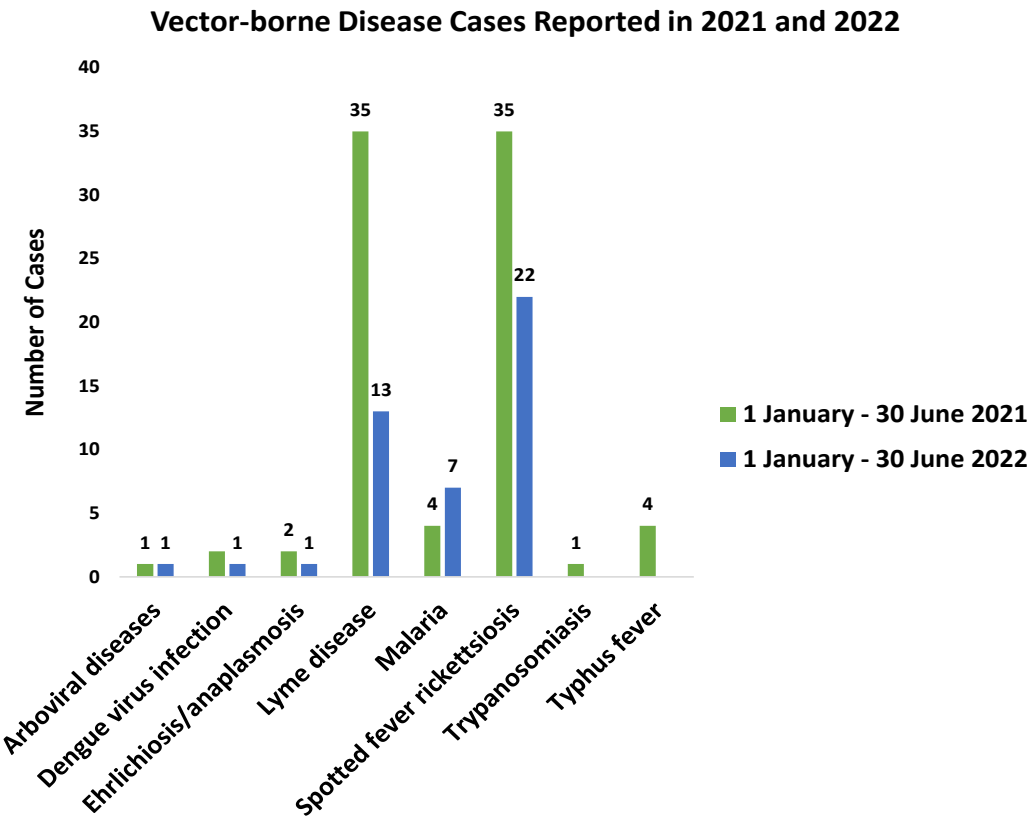
Army Public Health Center
Army Vector-borne Disease Report
June 2022
Data are preliminary and subject to change

Disease Reporting System internet (DRSi) Surveillance

From 1 January 2022 to 30 June 2022, 45 vector-borne disease (VBD) cases, with onset dates during the specified time period, have been reported in the DRSi. Sixty-seven percent (n=30) of cases were active duty (AD) service members and 76% (n=34) of cases were male. To date, the largest numbers of VBD cases were diagnosed among individuals who were 18-29 (n=18, 40%) and 30-39 years of age (n=12, 27%). During the same time period in 2021, 84 cases were reported in the DRSi; this represents a 46% decrease in the number of cases from 2021 to 2022 during the specified time period. Seventy-one percent of the cases with onset dates in 2022 were reported from locations in the Atlantic region.

A total of six VBD cases were reported to the DRSi in June 2022, and 67% (n=4) of the cases were AD service members. Of the six cases, three (50%) were diagnosed with spotted fever rickettsiosis, one with dengue virus infection, one with Lyme disease, and one with malaria; the malaria case did not complete chemoprophylaxis. All but one of the cases were reported from locations in the Atlantic region. During June 2021, 30 VBD cases were reported; Lyme disease and spotted fever rickettsiosis accounted for 73% (n=22). Seventeen (57%) of the cases were reported from locations in the Atlantic region.



Time periods: 2021: 1 January 2021 through 30 June 2021 | 2022: 1 January 2022 through 30 June 2022.

The values shown for DRSi surveillance represent all individuals that were diagnosed at Army locations and Army beneficiaries diagnosed at non-Army locations. Values are based on onset dates.

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2022 Year-to-Date Regional Vector Testing

Public Health Command (PHC) - Central tested 249 *Aede*s and *Culex* mosquitoes in 18 pools for West Nile virus; results are pending.

PHC-Pacific tested 1,403 *Aedes*, *Armigeres, and Culex* mosquitoes in 53 pools for Japanese encephalitis virus, and 295 *Aedes* and *Culex* mosquitoes in 15 pools for dengue virus; all pools tested negative.

PHC-Pacific tested 842 *Haemaphysalis*, *Ixodes*, and *Ornithodoros* ticks in 130 pools for *Dabie bandavirus*; all pools tested negative.

PHC-Europe tested 291 *Culex* mosquitoes in 59 pools for West Nile virus; results are pending.

PHC-Europe tested 12 ticks *Ixodes* and *Dermacentor* ticks for *Anaplasma phagocytophilum* and *Ehrlichia spp.*, 11 *Ixodes* ticks for *Borrelia spp.* and tick-borne encephalitis, 3 *Ixodes* ticks for *Rickettsia spp.*, and 1 *Ixodes* tick for Crimean-Congo hemorrhagic fever; results are pending.

Military Tick Identification/Infection Confirmation Kit (MilTICK)

MilTICK is a service provided by the Tick-Borne Disease Laboratory at the APHC. It is a free tick testing and identification service available for ticks removed from Department of Defense (DoD) personnel and their dependents. For more information about MilTICK, visit https://phc.amedd.army.mil/topics/envirohealth/epm/Pages/HumanTickTestKitProgram.aspx.

To date:
- 465 *Amblyomma americanum* ticks were tested for multiple *Ehrlichia* pathogens; 11 (2.4%) *A. americanum* ticks tested positive for *E. ewingii*, 1 (0.2%) *A. americanum* tick tested positive for *E. chaffeensis*, and 5 (1.1%) *A. americanum* ticks tested positive for Panola Mountain *Ehrlichia*.
- 3 *Amblyomma maculatum* ticks and 63 *Dermacentor* ticks were tested for multiple *Rickettsia* pathogens; 1 (3.3%) *A. maculatum* tick tested positive for *R. parkeri*.
- 81 *Ixodes* ticks were tested for a variety of pathogens (*Borrelia burgdorgeri*, *Babesia microti*, and *A. phagocytophilum*); 4/77 (5.2%) *I. scapularis* ticks tested positive for *B. microti*, 4/77 (5.2%) *I. scapularis* ticks tested positive for *A. phagocytophilum*, and 17/77 (22.1%) *I. scapularis* ticks tested positive for *B. burgdorferi*. Four of these positive *I. scapularis* ticks were also co-infected with multiple pathogens (*A. phagocytophilum*, *B. burgdorferi*, *B. microti*).