



Army Public Health Center  
**Army Vector-borne  
 Disease Report**

22 July 2016

Data are preliminary and subject to change

- **Zika Virus:** 1,305 travel-associated cases have been reported to the CDC in the United States; 24 confirmed and probable cases have been reported in Army beneficiaries.
- **Army-wide:** 2,907 mosquitoes were tested for Zika; none tested positive.

## West Nile Virus (WNV)

### United States

- From the beginning of the year through 16 July 2016, 51 human WNV cases have been reported to the CDC. No fatal cases were reported. During the same time period in 2015, 192 cases were reported.
- All of the reported cases were classified as neuroinvasive (i.e., meningitis or encephalitis).

### Cases in Army AD and Other Beneficiaries

- No confirmed or probable WNV cases have been reported in Army AD and beneficiaries in 2016.

## Zika Virus (ZIKV) Update

- From January 1, 2015 through July 13, 2016, 1,305 ZIKV cases have been reported in the U.S., all travel-associated. 2,905 locally acquired and 11 travel-associated cases were reported in Puerto Rico, U.S. Virgin Islands, and American Samoa.
- To date, 24 confirmed and probable cases of ZIKV have been reported in Army beneficiaries: 19 AD and 5 non-AD cases.

## DoD Army Laboratory Mosquito Surveillance

- PHC-Central tested 5,069 mosquitoes (*Culex*, *Aedes*, *Culiseta*, and *Ochlerotatus spp.*) from 377 pools for WNV. 214 of these mosquitoes from 66 pools were also tested for CHIKV and ZIKV; none were positive for any of these pathogens.
- PHC-Pacific (JBLM) tested 21 *Culex spp.* mosquitoes in 2 pools for WNV; 1,804 *Aedes spp.* mosquitoes in 83 pools for CHIKV, Dengue (DENV), and ZIKV; and 101 *Aedes spp.* mosquitoes in 25 pools for DENV alone; all mosquitoes were negative for these diseases.
- PHC-Atlantic tested 889 *Aedes* mosquito vector species for CHIKV, DENV, and ZIKV; and 5,278 *Culex spp.* mosquitoes for WNV. All were negative.

## DRSi Surveillance

- 50 cases of Lyme disease and 0 cases of Ehrlichiosis/Anaplasmosis have been reported in Army AD beneficiaries in 2016, compared to 54 and 2 cases, respectively, during the same time period in 2015.

## Army Tick Testing

- PHC-Atlantic tested 504 *Ixodes scapularis* ticks for *Borrelia burgdorferi* and *B. miyamotoi*. 37 ticks (7.3%) tested positive for *B. burgdorferi* and 10 (2%) tested positive for *B. miyamotoi*. 108 *Rhipicephalus turanicus* ticks and 143 *Amblyomma americanum* ticks were tested for *Ehrlichia spp.* 3 (2.8%) *R. turanicus* ticks and 6 (4.2%) *A. americanum* ticks tested positive.
- Of 1,015 ticks tested by the Human Tick Test Program, 3% were positive for an agent of human ehrlichiosis (*E. ewingii*, *E. chaffeensis*, Panola mountain *Ehrlichia*).

Human Tick Test Program	A. phagocytophilum	B. microti	B. burgdorferi	E. chaffeensis	E. ewingii	E. muris-like	R. parkeri	R. rickettsii	Panola mountain Ehrlichia
YTD No. Positive (YTD No. Tested)	4 (161)	3 (161)	42 (161)	12 (1015)	8 (1015)	0 (161)	1 (2)	0 (438)	10 (1015)

Note: CONUS data only.

\*Data is YTD 2016

WNV Human Cases <sup>β</sup>		
Population	Cum. 2016 <sup>^</sup>	Cum. 2015 <sup>γ</sup>
United States	51	192
Army Cases <sup>±</sup> Confirmed and Probable		
Army AD <sup>‡</sup>	0	0
Army Non-AD <sup>†</sup>	0	0

Sources: CDC 16 July, DRSI 16 July 2016

Note: Reporting location may differ from exposure location.

<sup>β</sup> Confirmed and probable neuroinvasive and non-neuroinvasive cases.

<sup>±</sup> Only cases whose case status is verified as confirmed/probable.

<sup>‡</sup> Active duty, recruits, cadets.

<sup>^</sup> Cumulative through 16 July 2016.

<sup>γ</sup> Cumulative through 18 July 2015.

Lyme Disease Cases		
Population	Cum. 2016	Cum. 2015 <sup>^</sup>
United States <sup>β</sup>	11,211	18,292
Army Cases <sup>±</sup> Confirmed and Probable		
Army AD <sup>‡</sup>	24	21
Army Non-AD <sup>†</sup>	26	33
Regional Case Distribution		
PHC-Atlantic	34	43
PHC-Central	6	2
PHC-Pacific	5	4
PHC-Europe	5	5
Other/Unknown	0	0

Sources: CDC and AIPH DRSI.

Note: Reporting location may differ from exposure location.

<sup>β</sup> Provisional cases through 16 July.

<sup>±</sup> Cases reported through 16 July.

<sup>‡</sup> Active duty, recruits, cadets.

<sup>†</sup> Army-associated beneficiaries.

<sup>^</sup> Cumulative through 18 July 2015

**Resources:** CDC West Nile Virus • CDC Lyme Disease • APHC Zika Virus • Permethrin Treated Uniforms • Army Vector-borne Disease Reports • APHC

**Key:** CDC Centers for Disease Control and Prevention; DRSI Disease Reporting System Internet; AD Active Duty

Contact us: APHC Disease Epidemiology or 410-417-2377

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