



United States Army Public Health Command
**Army Vector-borne
 Disease Report**

25 July 2014, Ver. 2

Data are preliminary and subject to change

- **West Nile Virus:** 35 human cases (an increase of 17 since the last report) have been reported to the CDC from 15 states. Since the last published report, an additional 11 states reported WNV activity of some type (infections in humans, birds, or mosquitoes).
- **Human Tick Test Program:** 34% of all ticks tested for *Borrelia burgdorferi*, the causative agent for Lyme disease, were positive.

West Nile Virus (WNV)

United States

- From the beginning of the year through 22 July 2014, 35 human WNV cases have been reported to the CDC, including 1 death.
- The majority of reported cases (54%, n=19) are classified as non-neuroinvasive.
- As of 22 July, 30 states (an increase of 11 since the last report) report WNV activity of some type (infections in humans, birds, or mosquitoes).
- States reporting human WNV cases are: Arizona, California, Colorado, Georgia, Iowa, Louisiana, Mississippi, Missouri, Nebraska, New Mexico, Oklahoma, South Dakota, Tennessee, Texas, and Wisconsin.



WNV Human Cases ^β		
Population	Reporting Period ^γ	Cum. 2014
United States	17	35
Army Cases [±] Confirmed and Probable		
Army AD [‡]	0	0
Army Non-AD [†]	0	0
WNV Human Deaths		
United States	0	1
Army	0	0

Sources: CDC as of 22 July 2014 and AIPH DRSI as of 23 July 2014.

Note: Reporting location may differ from exposure location.

^β Confirmed and probable neuroinvasive and non-neuroinvasive cases.
^γ Difference between last published report and this week's cumulative 2014 value.

[±] Only Army AD and beneficiaries who have a Reportable Medical Event generated on their behalf and whose case status is verified as confirmed/probable are included in this report.

[‡] Active duty, recruits, cadets.

[†] Army-associated beneficiaries.

Cases in Army AD and Other Beneficiaries

- No confirmed WNV infections have been reported in Army beneficiaries.

DoD Mosquito Surveillance from Army Laboratories

- PHCR-North has identified 11 WNV-positive mosquito pools at Walter Reed National Military Medical Center and at Joint Base Anacostia-Bolling.
- PHCR-South is transitioning to a new laboratory and was not able to provide updated mosquito surveillance data.
- As of 22 July, PHCR-Pacific has tested 125 mosquitoes.
 - ⇒ Of 120 *Culex* mosquitoes tested, none were positive for Japanese Encephalitis. Five *Aedes* mosquitoes were also tested and none were positive for chikungunya or dengue.

WNV Mosquito Pool Testing	PHC Region	Reporting Period ^γ	Year to Date 2014
		No. Positive (No. Tested)	No. Positive (No. Tested)
	North	11 (276)	11 (362)
	South	No Report	0 (332)
	West	No Report	0 (0)

^γ Absolute difference between last published report and this week's year to date number.

Source: Official Communication

Chikungunya Update

- On 17 July 2014, two locally-acquired, civilian cases of chikungunya were reported from Florida. Although its course in the U.S. is unknown, the CDC believes that chikungunya will behave like dengue fever in the U.S., where imported cases have resulted in sporadic local transmission but have not caused widespread outbreaks. More information can be found [here](#).
- Information about chikungunya vector control can be found on the Armed Forces Pest Management Board's new [webpage](#).

Tick-borne Diseases

- As of 22 July, PHCR-West has tested 347 tick specimens. None have tested positive for *Borrelia spp*, *Ehrlichia chaffeensis*, or *Rickettsia rickettsii*.

Human Tick Test Program

- The DOD Human Tick Test Program is a free service for military health care providers, DoD employees, and dependents that tests for pathogens in ticks removed from patients. Tick testing is species-specific; different tick species transmit different pathogens. Contact information can be found [here](#).
- Of 192 *Ixodes* ticks tested by the Human Tick Test Program, 34% (n=65) were positive for the Lyme disease pathogen *Borrelia burgdorferi*.
- No ticks from CONUS have tested positive for the pathogen known to cause Rocky Mountain spotted fever, *Rickettsia rickettsii*.
- As of 18 July, PHCR-Europe has tested 128 tick specimens. 1 tested positive for *Borrelia spp* and 3 were positive for *Anaplasma phagocytophilum*. All ticks were collected in Germany.

Human Tick Test Program	A. <i>phagocytophilum</i>	B. <i>microti</i>	B. <i>burgdorferi</i>	E. <i>chaffeensis</i>	E. <i>ewingii</i>	E. <i>muris-like</i>	R. <i>parkerii</i>	R. <i>rickettsii</i>
YTD No. Positive (YTD No. Tested)	6 (194)	3 (194)	65 (192)	3 (531)	17 (539)	1 (531)	0 (0)	0 (109)

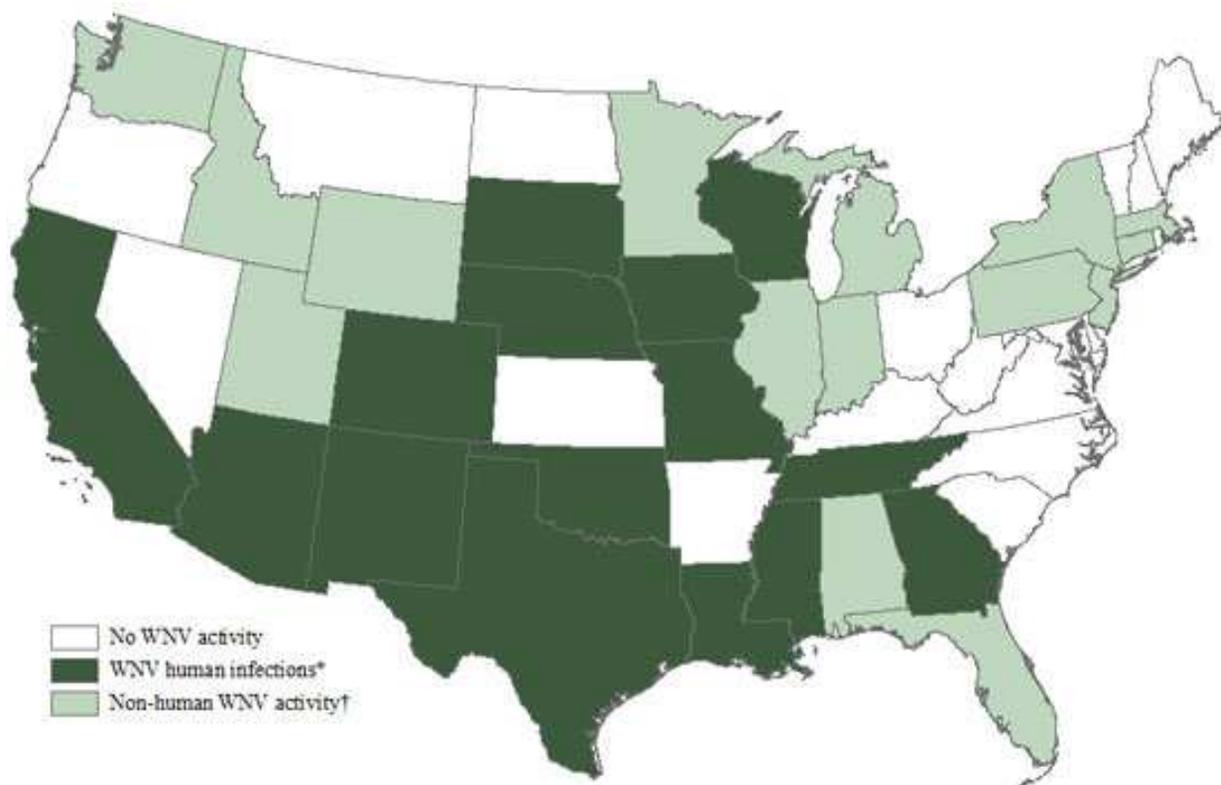
Note: CONUS data only.

Tick Bite Prevention

- When spending time outdoors, wear permethrin treated clothing and use mosquito repellants with 20-30% DEET or 20% picaridin on exposed skin.
- Once indoors, bathe or shower as soon as possible to wash off any loose ticks.
- Use the buddy system to check for ticks. Pay special attention to hair, ears, belly buttons, waistlines, behind the knees and between the legs.
- Also check pets and gear for ticks.
- For information on tick bite prevention using Permethrin Factory Treated Army Combat Uniforms click [here](#).

Resources: CDC CHIKV • AFPMB CHIKV • Human Tick Test Program • USAPHC WNV Fact Sheet • Army Vector-borne Disease Reports • USAPHC
Key: CDC Centers for Disease Control and Prevention; DRSi Disease Reporting System Internet; Mosquito pool 1 to 50 mosquitoes; AD Active Duty
 Contact us: USAPHC Disease Epidemiology or 410-417-2377

West Nile Virus Activity by State – United States, 2014 (as of July 22, 2014)



*WNV human disease cases or presumptive viremic blood donors. Presumptive viremic blood donors have a positive screening test which has not necessarily been confirmed.

†WNV veterinary disease cases, or infections in mosquitoes, birds, or sentinel animals.

Data table:

Non-human West Nile virus infections have been reported to CDC ArboNET from the following states: Alabama, California, Colorado, Connecticut, Florida, Idaho, Illinois, Indiana, Louisiana, Massachusetts, Michigan, Minnesota, Mississippi, Nebraska, New Jersey, New York, Pennsylvania, South Dakota, Tennessee, Texas, Utah, Washington, Wisconsin, and Wyoming.

Human West Nile virus infections have been reported to CDC ArboNET from the following states: Arizona, California, Colorado, Georgia, Iowa, Louisiana, Mississippi, Missouri, Nebraska, New Mexico, Oklahoma, South Dakota, Tennessee, Texas, and Wisconsin.

Source: <http://www.cdc.gov/westnile/statsMaps/preliminaryMapsData/activitystatedate.html>