



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

Data are preliminary and subject to change

19 September 2014

- **West Nile Virus:** 725 cases and 25 deaths reported to CDC from 38 states and Washington D.C. No cases in Army beneficiaries in 2014.
- **West Nile Virus Mosquito Pools:** Since the last report, PHCR-North and PHCR-West identified 23 and 2 positive WNV pools, respectively.
- **Chikungunya:** Guatemala (8) and Brazil (2) report their first locally-acquired infections; total cases increased by 8.6% since the last report.
- **PHCR-South:** PHCR-South tested 611 mosquito pools for West Nile Virus and none were positive.

**West Nile Virus (WNV)**

- From 1 January through 16 September 2014, 725 WNV cases and 25 deaths were reported, an increase of 82% (326) and 56% (25), respectively, since the previous report.
- 56% of all cases are from 3 states: California (n=237), Texas (n=91), and Louisiana (n=78).
- As of 16 September, all contiguous U.S. states except for Maine, New Hampshire, and North Carolina report WNV activity of some type (infections in humans, birds, or mosquitoes).
- Most WNV infections in the U.S. occur from June through September.
- No confirmed acute West Nile virus infections have been reported in Army beneficiaries.



WNV Human Cases <sup>β</sup>		
Population	Reporting Period <sup>γ</sup>	Cum. 2014
United States	326	725
Army Cases <sup>±</sup>		
Confirmed and Probable		
Army AD <sup>‡</sup>	0	0
Army Non-AD	0	0
WNV Human Deaths		
United States	9	25
Army	0	0

Source: CDC & DRSI as of 16 SEP 2014.  
 Note: Reporting location may differ from exposure location.

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

<sup>γ</sup> Difference between last published report and this week's cumulative 2014 value.

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

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

**DoD Mosquito Surveillance from Army Laboratories**

- Since the last report, PHCR-North tested 294 pools, 23 of which were positive for WNV.
- Of the 279 pools PHCR-South tested for West Nile Virus since the last report, none were positive. 16 pools were tested for Chikungunya and none were positive.
- Since the last report, PHCR-West tested 35 pools for West Nile Virus. 2 positive pools were detected, both at Ft. Bliss.

WNV Mosquito Pool Testing	PHC Region	Reporting Period <sup>γ</sup>		Year to Date 2014	
		No. Positive (No. Tested)	No. Positive (No. Tested)	No. Positive (No. Tested)	No. Positive (No. Tested)
	North	23 (294)		76 (866)	
	South	0 (279)		0 (611)	
	West	2 (35)		6 (147)	

Source: Official Communication

<sup>γ</sup> Absolute difference between last published report and this week's year to date number.

**Chikungunya (CHIKV)**

- From December 2013 through 17 September 2014, over 710,000 CHIKV cases have been reported from the Americas, including 113 deaths.
- The U.S. and France report the largest numbers of imported cases.
- Since the previous report, the number of deaths has more than tripled (from 37 to 113); all new deaths are from Martinique and Guadeloupe.
- As of 16 September, 9 CHIKV infections were acquired in the continental U.S. (an increase of 2), all from Florida.
- Since the previous report, 1 additional Army case was reported. As of 18 September, 5 total Army cases (imported) were reported in 2014: 2 Active Duty, 1 retiree, and 2 dependents. In all cases, exposure occurred during non-duty related Caribbean travel (Dominican Republic, Guyana, Haiti, and Puerto Rico).
- On 29 August, the Pan American Health Organization/WHO issued an [alert](#) to member countries that have the vector mosquito (*Aedes aegypti*) to increase efforts to reduce mosquito population densities and breeding sites.
- For CHIKV vector control information, visit the [Armed Forces Pest Management Board](#).



Chikungunya Cases in the Americas			
Location <sup>†</sup>	Locally Acquired <sup>‡</sup>	Imported <sup>£</sup>	Deaths
Caribbean Islands	692,304	82	113
Central & South America	22,442	133	0
North America	9	1,054	0
Total	714,755	1,269	113
Army Cases <sup>±</sup>			
Army AD <sup>‡</sup>	0	2	0
Army Non-AD	0	3	0

Sources: (2014) PAHO 12 SEP, CDC & DRSI 16 SEP, Travax 17 SEP.

<sup>†</sup> Caribbean Islands include Puerto Rico & U.S. Virgin Islands; Central & South America includes continental countries only.

<sup>‡</sup> Includes suspect & confirmed cases; <sup>£</sup> Confirmed imported cases.

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

<sup>‡</sup> Army AD: Active Duty, recruits, cadets.

**Dengue**

- Florida (Miami-Dade) reports 3 new locally-acquired dengue cases. Most U.S. cases result from exposure in endemic U.S. areas (Puerto Rico, U.S. Virgin Islands, Samoa, Guam). Four dengue serotypes have been identified in the Americas. For details, visit CDC's [Dengue Page](#).
- As of 17 SEP, 131 locally-acquired cases in Japan were reported. No cases in Army personnel associated with Japan have been identified.

**Tick-borne Diseases**

- PHCR-North conducts routine environmental and animal tick surveillance and testing. 1/2 (50%) ticks were positive for *Rickettsia raboutii*, 1/1 (100%) were positive for *R. parkeri*, 33/306 (11%) were positive for *Borrelia burgdorferi*, 6/293 (2%) were positive for *B. miyamotoi*, and 17/293 (6%) were positive for *Anaplasma phagocytophilum*.
- Two articles were recently published in the Center for Disease Control and Prevention's (CDC) journal, *Emerging Infectious Diseases*, describing [Lyme disease in Virginia](#) and [the prevalence of Borrelia miyamotoi in Ixodes ticks in Europe and the U.S.](#)

**Human Tick Testing**

- As of September 19, approximately 3% of ticks sent to the CONUS Tick Testing Program tested positive for *A. phagocytophilum*.

Human Tick Test Program	A. phagocytophilum	B. microti	B. burgdorferi	E. chaffeensis	E. ewingii	E. muris-like	R. parkeri	R. rickettsii
YTD No. Positive (YTD No. Tested)	12 (379)	6 (379)	108 (379)	15 (2306)	64 (2306)	4 (379)	3 (7)	0 (573)

Note: CONUS data only.

**Resources:** CDC CHIKV • CDC Dengue • 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 1-50 mosquitoes; PHCR Public Health Command Region

Contact us: [USAPHC Disease Epidemiology](#) or 410-417-2377

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# West Nile Virus Activity by State – United States, 2014 (as of September 16, 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.

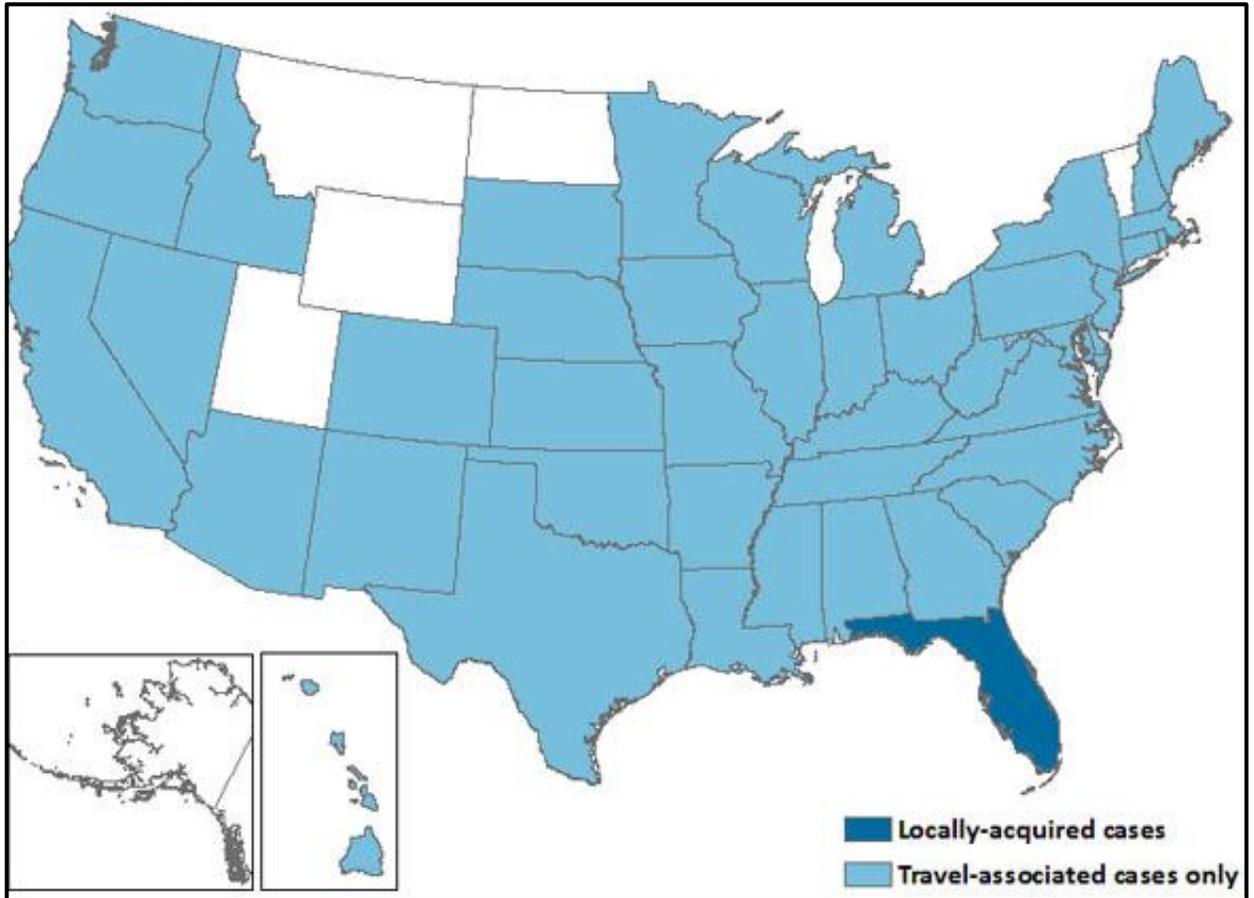
## Data table:

WNV infections in **mosquitoes, birds, sentinel animals, or veterinary animals** have been reported to CDC ArboNET from the following states: Alabama, Arizona, California, Colorado, Connecticut, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Jersey, New Mexico, New York, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming.

West Nile virus infections in **humans** have been reported to CDC ArboNET from the following states: Alabama, Arizona, Arkansas, California, Colorado, Connecticut, District of Columbia, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Jersey, New Mexico, New York, North Dakota, Ohio, Oklahoma, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, Washington, West Virginia, Wisconsin, and Wyoming.

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

## Chikungunya virus disease cases reported\* by state – United States, 2014 (as of September 16, 2014)



\*Chikungunya is not a nationally notifiable disease.

Source: <http://www.cdc.gov/chikungunya/geo/united-states.html>