



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

7 August 2015

Data are preliminary and subject to change

- **West Nile Virus:** Nationally, 38 cases and 1 death have been reported this WNV season; 1 acute WNV case in an active-duty Soldier has been reported in 2015.
- **Dengue Fever:** As of 3 August, 11 dengue fever cases have been reported in Army beneficiaries in 2015.
- **RMSF:** 6 cases of Rocky Mountain Spotted Fever have been reported in Army beneficiaries; 2 AD cases reported duty-related exposure.

**West Nile Virus (WNV)**  
**United States**

- From 1 January through 4 August 2015, 38 WNV cases and 1 death have been reported to the Centers for Disease Control and Prevention.
- 15 of the 38 cases were classified as neuroinvasive (i.e., meningitis or encephalitis); the remaining 23 were non-neuroinvasive.
- As of 3 August, 36 states report WNV activity of some type (infections in humans, birds, or mosquitoes).



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**Cases in Army AD and Other Beneficiaries**

- 1 WNV case in an AD Soldier has been reported from Fort Bliss, TX.

**DoD Army Laboratory Mosquito Surveillance**

- PHCR-North reported 7 WNV positive pools from Joint Base Anacostia-Bolling.
- PHCR-West reported 4 WNV positive mosquito pools: 2 from Fort Bliss, TX and 2 from Fort Riley, KS.
- PHCR-South reported 7 positive WNV mosquito pools from JBSA Lackland AFB, TX during weeks 24-26.
- PHCR-South also tested 41 pools of *Aedes albopictus* for chikungunya virus; all pools tested negative.

WNV Mosquito Pool Testing	PHC Region	Reporting Period <sup>‡</sup>		Year to Date 2015	
		No. Positive (No. Tested)	No. Positive (No. Tested)	No. Positive (No. Tested)	No. Positive (No. Tested)
	North	7 (212)	7 (344)	7 (344)	7 (344)
	South	7 (266)	7 (452)	7 (452)	7 (452)
	West	4 (47)	5 (92)	5 (92)	5 (92)

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

Source: Official Communication

**Dengue Virus (DENV)**

- 11 cases of dengue fever have been reported in Army AD and beneficiaries compared to 2 cases during the same period in 2014.
- 64% (7/11) of dengue fever cases were Army AD; all reported duty-related exposure while in Honduras.
- Dengue rarely occurs in the continental U.S.; most cases are imported. The majority of cases in U.S. citizens occur in residents of Puerto Rico, the U.S. Virgin Islands, Samoa, and Guam where dengue is endemic.



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WNV Human Cases <sup>β</sup>		
Population	Reporting Period <sup>‡</sup>	Cum. 2015
United States	28	38
Army Cases <sup>±</sup> Confirmed and Probable		
Army AD <sup>‡</sup>	1	1
Army Non-AD	0	0
WNV Human Deaths		
United States	1	1
Army	0	0

Sources: CDC & DRISi as of 3 August 2015, Official Communication 6 August 2015

Note: Reporting location may differ from exposure location.  
<sup>β</sup> Confirmed and probable neuroinvasive and non-neuroinvasive cases.  
<sup>‡</sup> Difference between last published and this week's cumulative 2015 value.  
<sup>±</sup> Only cases whose case status is verified as confirmed/ probable.  
<sup>‡</sup> Active duty, recruits, cadets.

Dengue Virus Cases			
Population	Reporting Period <sup>‡</sup>	Cum. 2015	Cum. 2014
United States <sup>β</sup>	29	29	277
Army Cases <sup>±</sup> Confirmed and Probable			
Army AD <sup>‡</sup>	7	7	1
Army Non-AD <sup>‡</sup>	4	4	1

Sources: CDC 25 July 2015 and AIPH DRISi 3 August 2015.

Note: Reporting location may differ from exposure location.  
<sup>β</sup> Provisional cases through 25 July 2015 and 19 July 2014 (week 29), excludes U.S. territories.  
<sup>±</sup> Confirmed and probable cases from 1 January-04 August 2015  
<sup>‡</sup> Active duty, recruits, cadets.  
<sup>‡</sup> Army-associated beneficiaries.

**Rocky Mountain Spotted Fever**

- 6 cases of Rocky Mountain Spotted Fever (RMSF) have been reported in Army AD and beneficiaries compared to 10 cases during the same time period in 2014.
- Of the 6 cases, 4 (67%) were AD, two of whom reported duty-related exposure.
- Half of all cases were reported by PHCR-North and 33% (2/6) by PHCR-West.

**Army Tick Testing**

- As of 27 July, PHCR-West tested 149 *Dermacentor occidentalis*, *D. variabilis*, and *Amblyomma americanum* ticks for *Rickettsia rickettsii*, the pathogen that causes RMSF; all ticks tested negative for the pathogen.
- PHCR-North and PHCR-South have not tested any ticks for *R. rickettsii* in 2015.
- The DoD Human Tick Test Program tested 175 ticks for *R. rickettsii*; all were negative.
- *R. parkeri*, which belongs to the Spotted Fever group Rickettsia (SFGR), causes human infections with symptoms similar to RMSF. No ticks were tested for *R. parkeri*.
- For rickettsial pathogen diagnosis using PCR, military health care providers may send skin and blood samples from active duty military patients and dependents to the Naval Infectious Disease Diagnostic Laboratory: <http://www.med.navy.mil/sites/nmrc/Pages/niddl.htm>

Rocky Mountain Spotted Fever Cases			
Population	Reporting Period <sup>‡</sup>	Cum. 2015	Cum. 2014
United States <sup>β</sup>	0	61	82
Army Cases Confirmed and Probable			
Army AD <sup>‡</sup>	2	4	2
Army Non-AD <sup>‡</sup>	0	2	8
Regional Distribution			
PHCR-North	2	3	5
PHCR-Pacific	0	1	0
PHCR-South	0	0	0
PHCR-West	0	2	5
Other/Unknown	0	0	0

Sources: CDC and AIPH DRISi as of 3 August 2015.

Note: Reporting location may differ from exposure location. CDC data is for Spotted Fever Rickettsiosis (including RMSF).  
<sup>‡</sup> Cases reported in the most recent EpiWeek (week 29) and DRISi cases reported during 23 July - 2 August 2015  
<sup>β</sup> Provisional confirmed and probable cases.  
<sup>‡</sup> Active duty, recruits, cadets.  
<sup>‡</sup> Army-associated beneficiaries.

Human Tick Test Program	<i>A. phagocytophilum</i>	<i>B. microti</i>	<i>B. burgdorferi</i>	<i>E. chaffeensis</i>	<i>E. ewingii</i>	<i>E. muris-like</i>	<i>R. parkeri</i>	<i>R. rickettsii</i>
YTD No. Positive (YTD No. Tested)	18(185)	4(185)	71(185)	19(1010)	16(1010)	0(185)	0(0)	0(175)

Note: CONUS data only.

**Resources:** CDC WNV • CDC Tickborne Diseases • Human Tick Test Program • USAPHC WNV Fact Sheet • Army Vector-borne Disease Reports • USAPHC

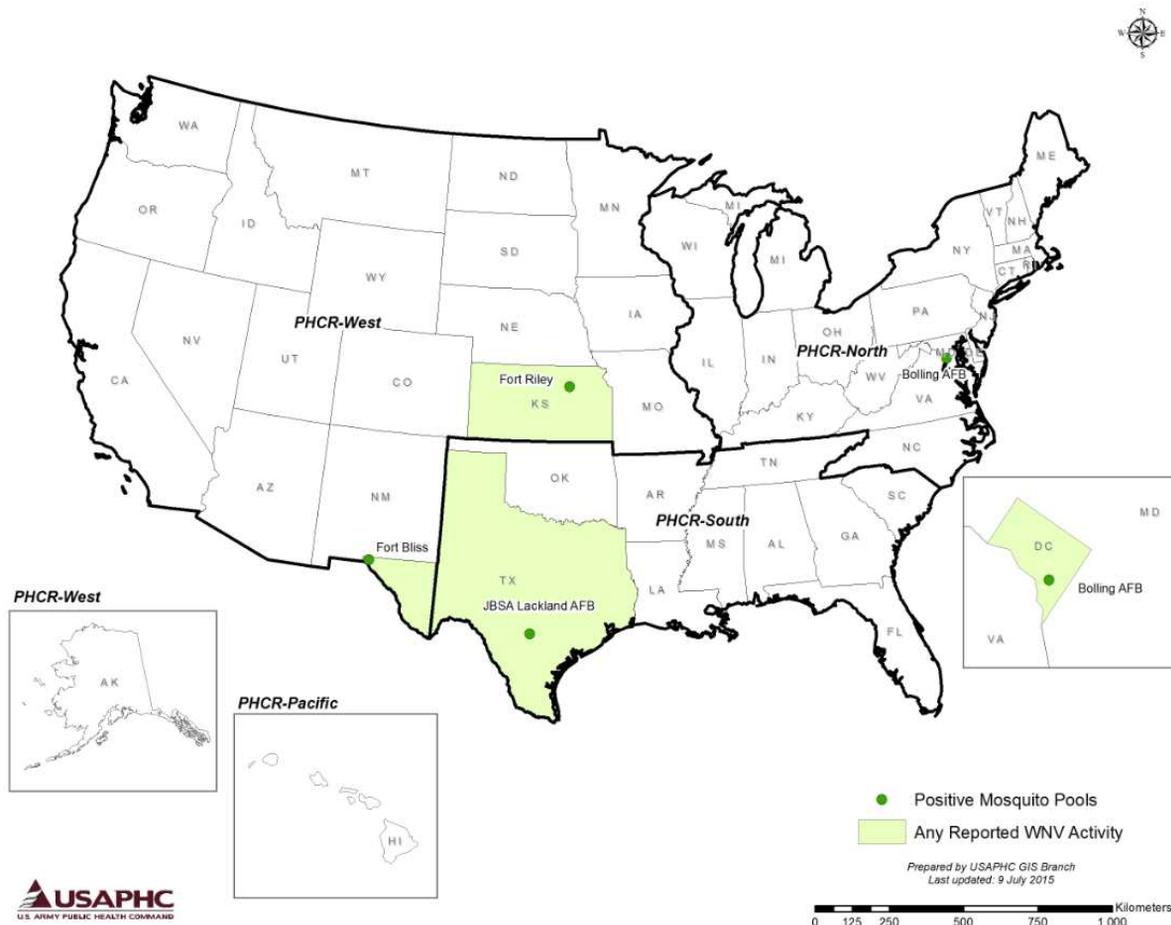
**Key:** CDC Centers for Disease Control and Prevention; DRISi Disease Reporting System Internet; Mosquito pool 1 to 50 mosquitoes; AD Active Duty

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

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# West Nile Virus Activity, by State and Army Public Health Command Region (PHCR), United States, 2015

As of August 3, 2015

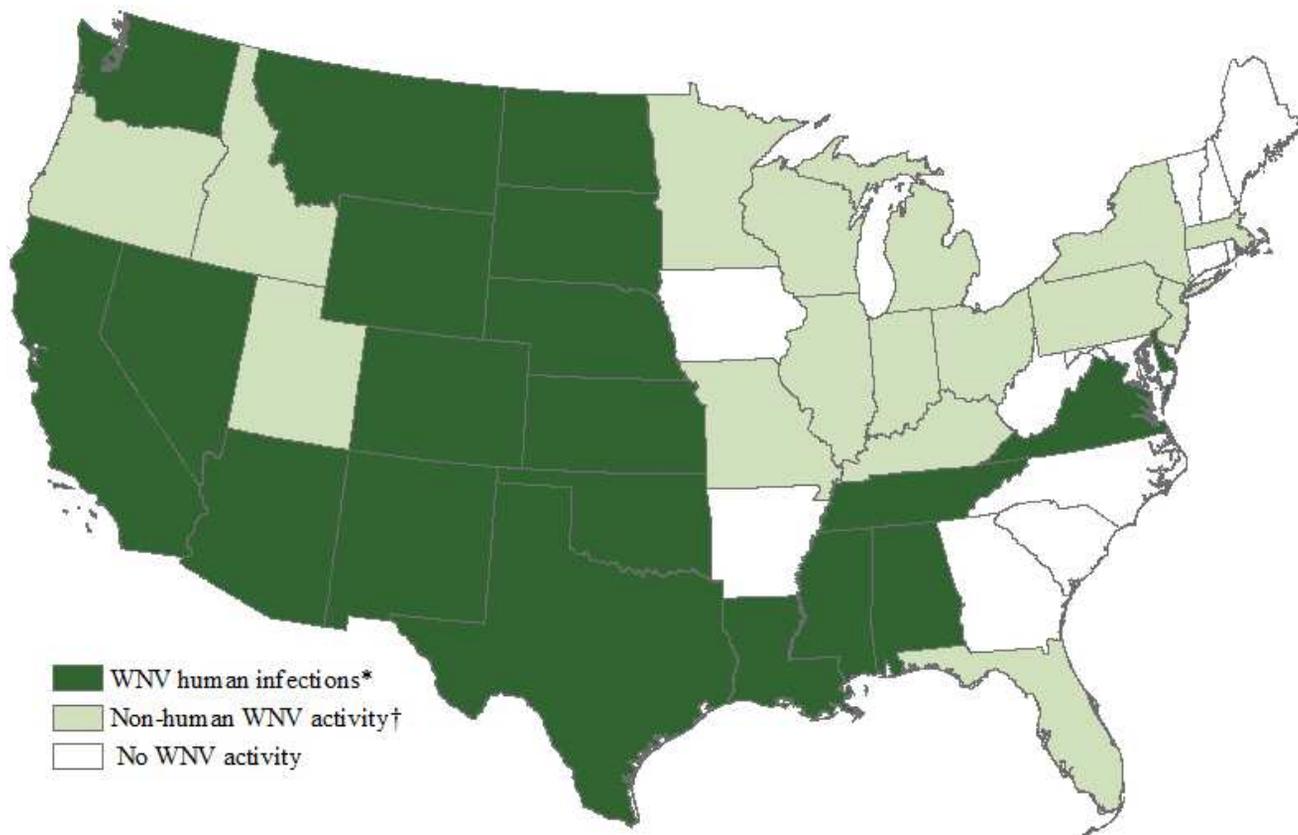


Footnote: The map displays white areas that indicate no reported West Nile virus (WNV) activity. Light green areas represent any reported WNV activity\* within a state and dark green circles represent WNV positive mosquito pools on military installations. If West Nile virus infection is reported from any area of a state, that entire state is shaded light green.

\*Includes WNV Army human disease cases (probable and/or confirmed) and infections in mosquito pools on military installations.

Prepared by: US Army Public Health Command Geographic Information Systems Branch.

# West Nile Virus Activity by State – United States, 2015 (as of July 28, 2015)



\*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.

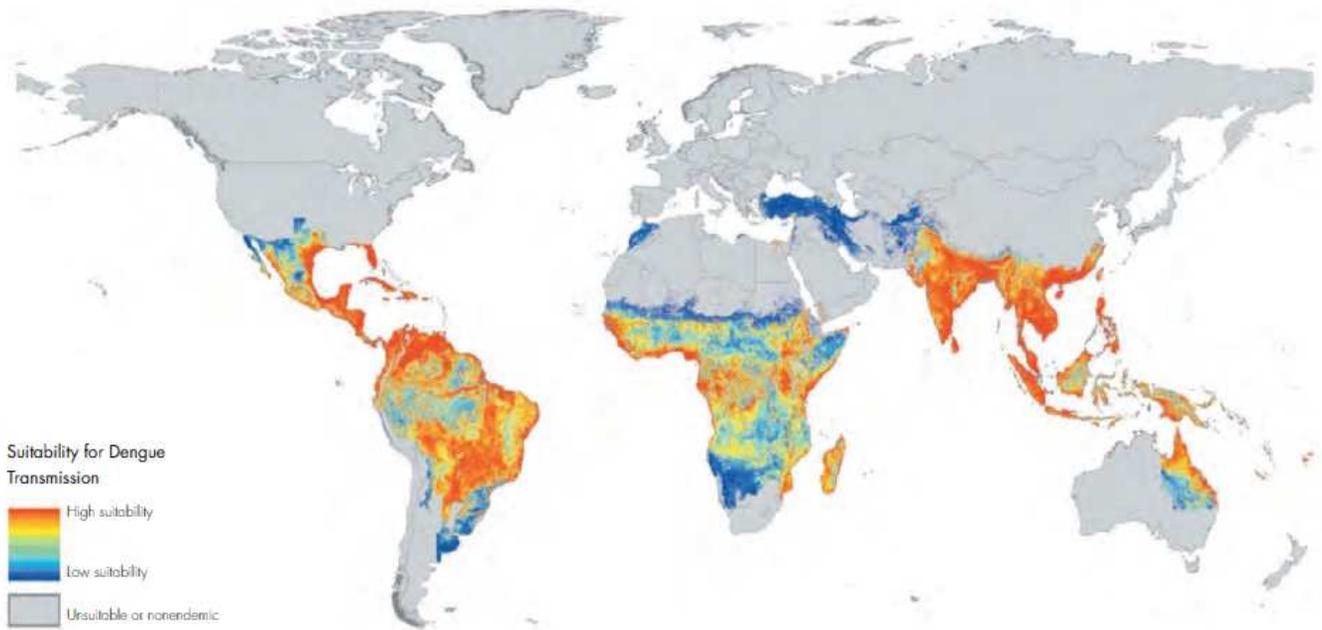
## Data table:

WNV infections in **mosquitoes, birds, sentinel animals, or veterinary animals** have been reported to CDC ArboNET from the following states: California, Florida, Idaho, Illinois, Indiana, Michigan, Mississippi, Missouri, Nebraska, Nevada, New York, Ohio, Oklahoma, Pennsylvania, South Dakota, Texas, Utah, Washington, and Wisconsin.

West Nile virus infections in **humans** have been reported to CDC ArboNET from the following states: Arizona, Delaware, Kansas, New Mexico, Oklahoma, South Dakota, and Texas.

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

# World Health Organization—Distribution of Global Dengue Risk



Determination of risk status based on combined reports from WHO, the United States Centers for Disease Control and Prevention, Gideon online, ProMED, DengueMap, Eurosurveillance and published literature (Simmons CP et al, 2012).

Source: World Health Organization. *Global Strategy for Dengue Prevention and Control, 2012-2020*. Available at: [http://apps.who.int/iris/bitstream/10665/75303/1/9789241504034\\_eng.pdf](http://apps.who.int/iris/bitstream/10665/75303/1/9789241504034_eng.pdf).