



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

8 August 2014

Data are preliminary and subject to change

- **West Nile Virus:** 82 human cases and 4 deaths nationally have been reported to the CDC from 17 states and the District of Columbia. No acute WNV cases have been reported among Army AD or other beneficiaries in 2014.
- **West Nile Virus Mosquito Pools:** 24 new positive pools were reported from PHCR-North; to date PHCR-North reports 35 positive pools.
- **Rocky Mountain Spotted Fever (RMSF):** 10 cases of RMSF have been reported in Army beneficiaries.

West Nile Virus (WNV)

United States

- From 1 January through 5 August 2014, 82 WNV cases and 4 deaths were reported, an increase of 47 and 3, respectively, since the previous report.
- Similar to previous years, the majority of cases (52%, n=43) are non-neuroinvasive.
- California (n=19) and Arizona (n=13) together report 39% of all WNV cases.
- Since the previous report, 9 additional states (39 total) report WNV activity of some type (infections in humans, birds, or mosquitoes).

Cases in Army AD and Other Beneficiaries

- No confirmed acute West Nile virus infections have been reported in Army beneficiaries.

West Nile Virus Activity by State – United States, 2014 (as of August 5, 2014)



WNV Human Cases ^β		
Population	Reporting Period ^γ	Cum. 2014
United States	47	82
Army Cases [±] Confirmed and Probable		
Army AD [‡]	0	0
Army Non-AD [†]	0	0
WNV Human Deaths		
United States	3	4
Army	0	0

Sources: CDC as of 5 AUG 2014 and AIPH DRSl as of 6 AUG 2014.

Note: Reporting location may differ from exposure location.

^β Confirmed and probable neuroinvasive and non-neuroinvasive cases.

^γ Difference between last published 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.

DoD Mosquito Surveillance from Army Laboratories

- PHCR-North has identified 35 WNV-positive mosquito pools at Walter Reed National Military Medical Center, Joint Base Anacostia-Bolling, the Armed Forces Retirement Home, Fort McNair, the Naval Research Laboratory, and Aberdeen Proving Ground (Aberdeen).

WNV Mosquito Pool Testing	PHC Region	Reporting Period ^γ	Year to Date 2014	‡ Absolute difference between last published report and this week's year to date number.
		No. Positive (No. Tested)	No. Positive (No. Tested)	
	North	24 (182)	35 (544)	
	South	No Report	0 (332)	
	West	0 (30)	0 (30)	

Source: Official Communication

- Response guidelines were provided to all facilities with positive pools. In addition, entomologists from PHCR-North conducted a joint survey with Bolling personnel on 30 July to identify and control breeding sites.

Chikungunya (CHIKV)

- From December 2013 through 1 August 2014, over 510,000 CHIKV cases have been reported from the Americas, including 32 deaths.
- As of 5 August, CDC reports 4 CHIKV infections acquired in the continental U.S. (an increase of 2), all from Florida.
- Since the last report, 1 confirmed imported chikungunya case in a non-active duty Army beneficiary has been identified. The individual had recently traveled to the Dominican Republic.
- Army Entomological Sciences Program is providing each Public Health Command Region with additional Aedes mosquito surveillance capabilities, including pre-staging appropriate mosquito traps. CHIKV vector control information is available at the [Armed Forces Pest Management Board](#).



Chikungunya Infections in the Americas			
Location	Locally Acquired Cases [‡]	Imported Cases [£]	Deaths
Caribbean Islands [†]	509,148	58	32
Central & South America [±]	3,619	96	0
North America [§]	4	485	0
Total	512,771	639	32

Source: PAHO / WHO DEC 2013-1 AUG 2014. CDC as of 5 AUG 2014.

[‡] Includes suspect and confirmed cases; [£] Confirmed imported cases; [†] 25 countries/territories including Puerto Rico (PR) and US Virgin Islands (VI); [±] 14 continental countries; [§] Mexico, United States excluding PR & VI

Rocky Mountain Spotted Fever

- Through week 30, ten cases of Rocky Mountain spotted fever (RMSF) in Army beneficiaries have been reported compared to eight cases in 2013 during the same time period.
- Of the 10 RMSF cases, 2 (20%) cases are AD, one of whom reported duty-related exposure.
- RMSF occurrence in the U.S. peaks between April and September in southern and central states.
- Humans can contract *Rickettsia rickettsia*, the causative agent of RMSF, if a tick attaches/feeds for at least 4-6 hours or if breaks in the skin or mucous membranes are contaminated with crushed ticks or their feces.
- Tick-borne species of *Rickettsia* that are included in the category "Spotted Fever group *Rickettsia* (SFGR)" have been known to cause human infections with signs and symptoms similar to that of RMSF. *R. parkeri*, for example, belongs to this group.
- The CONUS DOD Human Tick Test Program has identified two ticks positive for *R. parkeri*. However, no ticks tested positive for *R. rickettsia* among specimens submitted in 2014.

Geographic Distribution of Reported RMSF Incidence in the United States in 2010



Rocky Mountain Spotted Fever Cases			
Population	Reporting Period ^γ	Cum. 2014	Cum. 2013
United States ^β	65	1,583	1,554
Army Cases Confirmed and Probable			
Army AD [‡]	0	2	7
Army Non-AD [†]	0	8	4
Regional Distribution			
PHCR-North	0	5	4
PHCR-South	0	5	5
PHCR-West	0	0	2
Other/Unknown	0	0	0

Sources: CDC and AIPH DRSl as of 1 August 2014.

Note: Reporting location may differ from exposure location. CDC data is for Spotted Fever *Rickettsiosis* (including RMSF).

^γ Cases reported for week 30 (ending 26 July 2014).

^β Provisional confirmed and probable cases.

[‡] Active duty, recruits, cadets.

[†] Army-associated beneficiaries.

Resources: CDC CHIKV • 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; DRSl 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 and Army Public Health Command Region (PHCR), United States, 2014

As of August 6, 2014

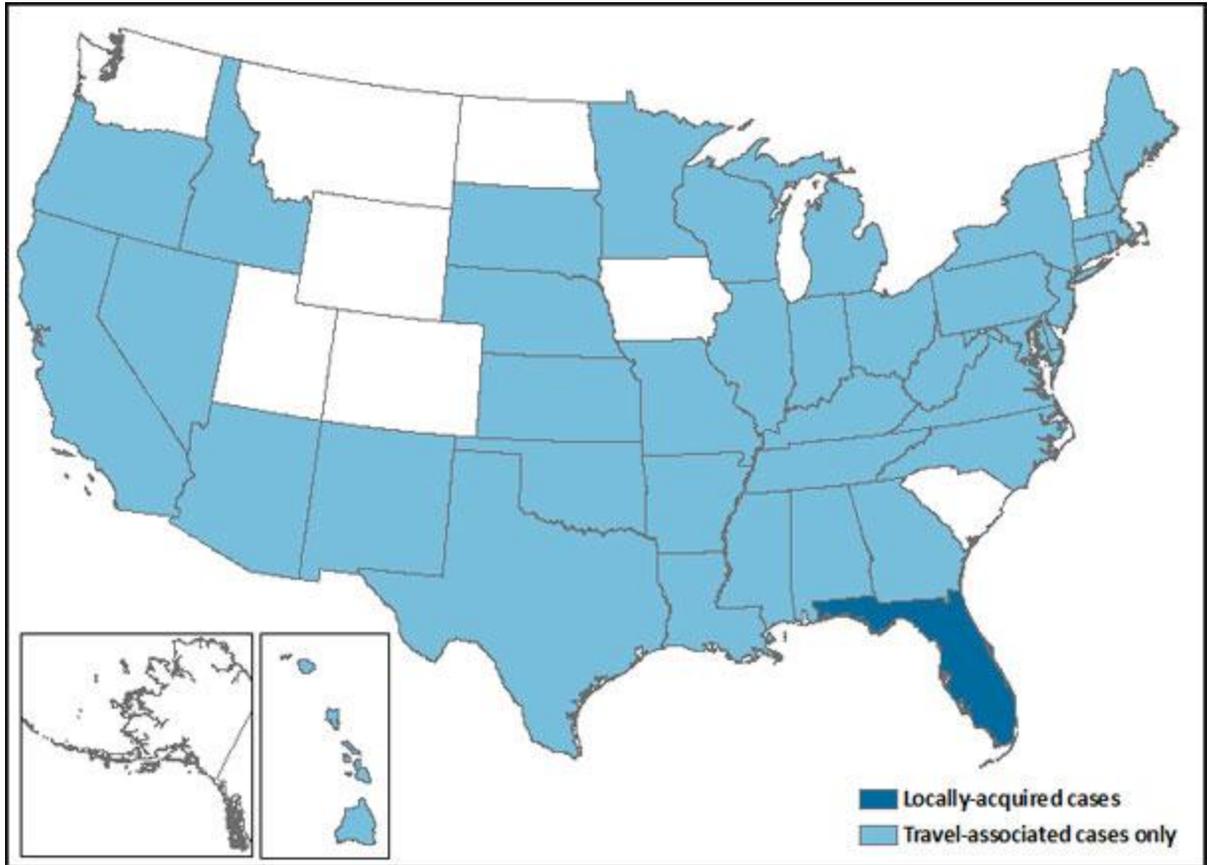


Footnote: The map displays white areas that indicate no reported West Nile virus (WNV) activity, light blue areas represent any reported WNV activity* within a state; dark blue circles represent WNV positive mosquito pools on military installations, and red squares represent the reporting location/installation of Army human cases (probable and/or confirmed). If West Nile virus infection is reported from any area of a state, that entire state is shaded light blue.

*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.

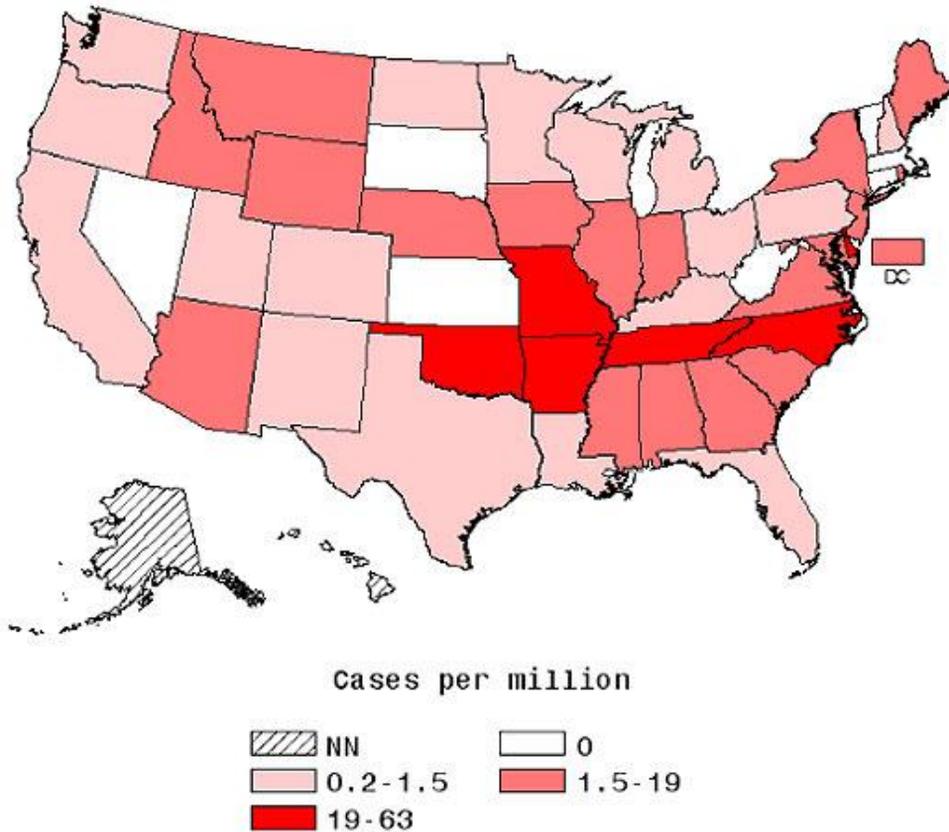
Chikungunya virus disease cases reported* by state – United States, 2014 (as of August 5, 2014)



*Chikungunya is not a nationally notifiable disease.

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

Geographic Distribution of Reported RMSF Incidence in the United States in 2010



This figure shows the annual reported incidence of RMSF cases by state in 2010 per million persons. RMSF was not notifiable in Alaska and Hawaii in 2010. The incidence rate was zero for Connecticut, Kansas, Massachusetts, Nevada, South Dakota, Vermont and West Virginia. Incidence ranged between 0.2 to 1.5 cases per million persons for California, Colorado, Florida, Kentucky, Louisiana, Michigan, Minnesota, New Hampshire, New Mexico, North Dakota, Ohio, Oregon, Pennsylvania, Texas, Utah, Washington and Wisconsin. Annual incidence ranged from 1.5 to 19 cases per million persons in Alabama, Arizona, the District of Columbia, Georgia, Idaho, Illinois, Indiana, Iowa, Maine, Maryland, Mississippi, Montana, Nebraska, New Jersey, New York, Rhode Island, South Carolina, Virginia and Wyoming. The highest incidence rates, ranging from 19 to 63 cases per million persons were found in Arkansas, Delaware, Missouri, North Carolina, Oklahoma, and Tennessee.

Source: Rocky Mountain Spotted Fever (RMSF): Statistics and Epidemiology. Centers for Disease Control and Prevention. Last updated September, 2013. Available at: <http://www.cdc.gov/rmsf/stats/index.html>.