

Army Vector-borne Disease Report

9 October 2012

Data are preliminary and subject to change

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- **West Nile virus:** CDC reports 424 additional human cases; Army reports no new cases (n=9) and no new deaths.
- **WNV mosquito pools:** PHCR-South reports 1 additional positive pool from a new location; PHCR-West reports no additional positives.
- **Lyme disease:** No additional cases of confirmed Lyme disease were reported among Army beneficiaries since the previous report.
- **Rocky Mountain Spotted Fever:** No new cases of Rocky Mountain Spotted Fever (RMSF) have been reported among Army beneficiaries.

West Nile Virus (WNV)

United States

- Compared to last week, U.S. WNV case counts increased by 12% and deaths by 11%.
- The number of neuroinvasive (i.e., meningitis or encephalitis) cases increased by 11% since last week; roughly half of cases (51%) are neuroinvasive (n=2010).
- CDC indicates the peak of the outbreak has passed, but expects case numbers to continue to increase as illness and death reports are lagging indicators; to date, most cases report onset of illness in the month of August than any other month this year.
- Washington D.C. and all states except ME, AK, and HI have reported human WNV cases.
- Five states (TX, CA, LA, MS, SD) have reported 57% of cases; TX reported 36% of cases.
- Texas continues to report the most cases (n=1438) and deaths (n=54); compared to the previous week, Texas total case counts increased by 6% (n=83) while deaths increased by 4% (n=2).

Cases in Army Personnel

- No additional fatalities have been reported among Army beneficiaries since the 23 August report.
- Joint Base San Antonio-Fort Sam Houston (JBSA-FSH) still reports 6 WNV (3 AD, 3 Beneficiaries) cases (including the previously reported fatality in a retiree); Fort Hood still reports 3 WNV cases (2 AD, 1 Retiree).
- Confirmatory labs on probable cases are pending; additional suspect WNV cases that have been reported previously are undergoing review and additional laboratory testing.

DoD Mosquito Surveillance from Army Laboratories

- PHCR-South reports 1 additional positive pool from Fort Stewart, a new location.
- PHCR-West reports no additional positive pools; PHCR-North did not report updates.

Positive Mosquito Pools	PHC Region	Previous Week¥	Year to Date	No. Positive Locations
	North	0	59	6
	South	1	73	6
	West	0	7	4

Prevention and Control Activities

- Expect mosquitoes to remain active until the first hard or killing frost.
- Preventive Medicine personnel should continue to stress the importance of eliminating mosquito breeding sites (standing water) around homes and workplaces, and using personal protective measures (use only EPA-registered insect repellents, preferably those containing DEET).

Lyme Disease

- Army reports no new confirmed Lyme disease cases among Army beneficiaries since last week's report.
- From 1 January to 8 October 2012, PHCR-Europe reported 52% and PHCR-North 28% of Army Lyme disease cases.
- Though the spring/summer peak of the Lyme disease vector (*Ixodes scapularis*) has passed, adult ticks are active (bite) in winter.
- Of 304 *I. scapularis* adults submitted to the DoD Human Tick Test Program this year, 26% (n=79) tested positive for Lyme disease.

2012 Lyme Disease Cases			
Population	Previous Week¥	Year to Date	
United States ^β	1,753	20,095	
Confirmed Army Cases			
Army Active Duty [‡]	0	43	
Army Beneficiaries	0	69	
Regional Case Distribution			
PHCR-Europe	0	58	
PHCR-North	0	31	
PHCR-South	0	13	
Other/Unknown	0	10	

Sources: CDC and AIPH DRSI.

Note: Reporting location may differ from exposure location.

¥ Difference between last published report and this week's year to date number.

^βProvisional cases, week ending 29 Sep.

[‡]Includes recruits and cadets.

Rocky Mountain Spotted Fever

- Low numbers of RMSF cases among Army beneficiaries were reported in 2012; no additional confirmed cases have been reported since Aug. 2012.
- All samples (n=446) of potential RMSF disease tick vectors removed from DoD personnel from May-July tested negative for *Rickettsia rickettsii*, the causative agent of RMSF.
- Clinically, early stages of RMSF may be confused with ehrlichiosis.
- RMSF occurrence in the U.S. peaks from April-September in Southern and Central states.
- Humans can contract *R. rickettsii* if a tick attaches/feeds for at least 4-6 hours or if breaks in skin or mucous membranes are contaminated with crushed ticks or their feces.

2012 WNV Human Cases ^β		
Population	Previous Week¥	Year to Date
United States	424	3,969
Army Cases		
Confirmed and Probable		
Army Active Duty [‡]	0	5
Army Beneficiaries	0	4
2012 WNV Human Deaths		
United States	16	163
Army Retirees [†]	0	1

Sources: CDC, AIPH DRSI, and official communication.

Note: Reporting location may differ from exposure location.

^βConfirmed and probable neuroinvasive and nonneuroinvasive cases.

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

[‡]Includes recruits and cadets.

[†]Case died 17 Aug., reported 21 Aug.

2012 RMSF Cases [†]	
145	United States ^β
Army Cases	
2	Army Active Duty [‡]
2	Army Beneficiaries
Regional Distribution	
0	PHCR-Europe
2	PHCR-North
1	PHCR-South
1	Other/Unknown

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

Sources: CDC and AIPH DRSI.

^βProvisional cases, week ending 29 Sep.

[†]Confirmed cases only.

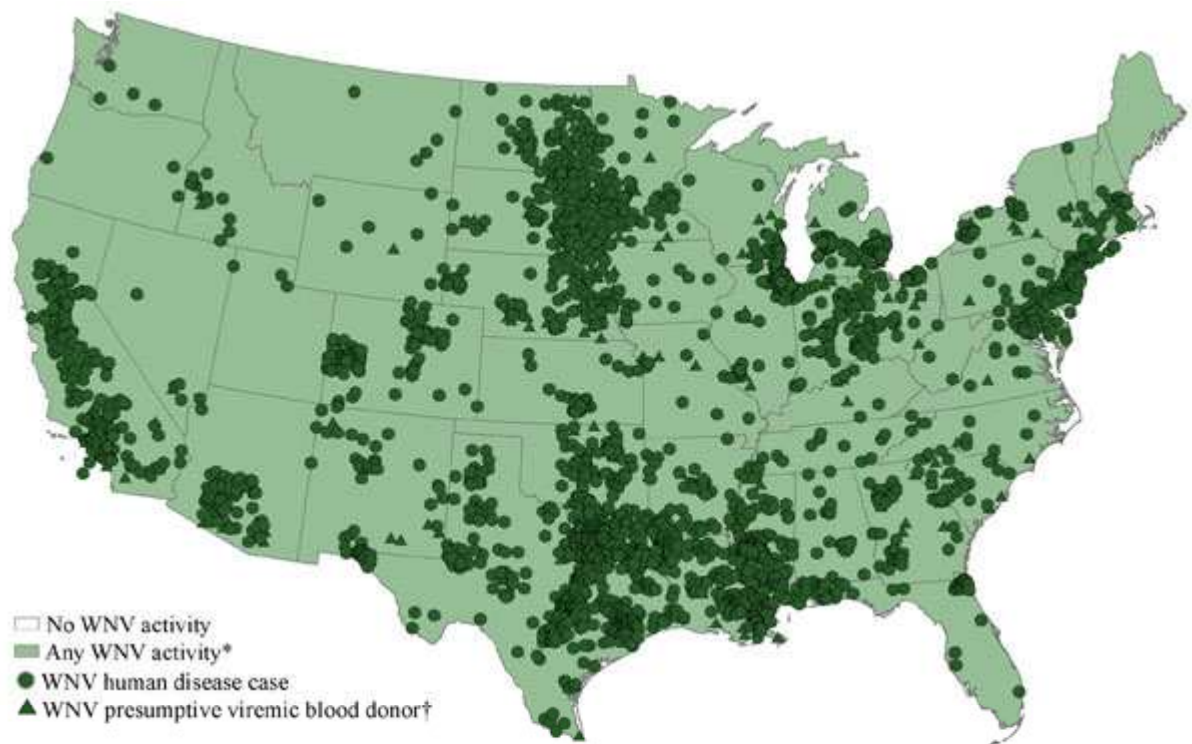
[‡]Includes recruits and cadets.

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; DRSI-Disease Reporting System Internet; Mosquito pool-1 to 50 mosquitoes; AD-Active Duty

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

West Nile virus (WNV) activity reported to ArboNET, by state, United States, 2012 (as of October 2, 2012)



Footnote: The map displays white areas that represent no WNV activity reported, light green areas that represent any WNV activity* , dark green circles that represent disease cases, and dark green triangles that represent presumptive viremic blood donors.

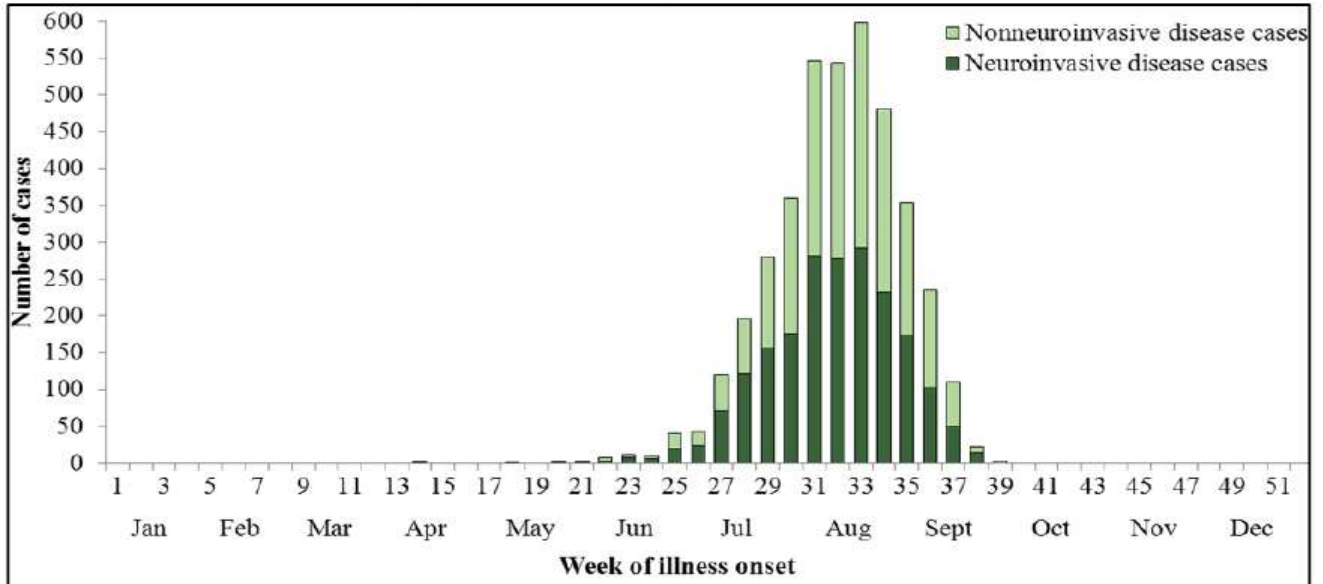
•Includes WNV human disease cases, presumptive viremic blood donors, veterinary disease cases and infections in mosquitoes, birds, and sentinel animals.

•† Presumptive viremic blood donors have a positive screening test which has not necessarily been confirmed.

Map shows the distribution of WNV activity* (shaded in light green), human infections (dark green circles), and presumptive viremic blood donors (dark green triangles) occurring during 2012 by state. If West Nile virus infection is reported from any area of a state, that entire state is shaded.

Source: <http://www.cdc.gov/ncidod/dvbid/westnile/Mapsactivity/surv&control12MapsAnybyState.htm>

West Nile virus (WNV) human disease cases reported to ArboNET by week of onset, United States, 2012 (as of October 2, 2012)

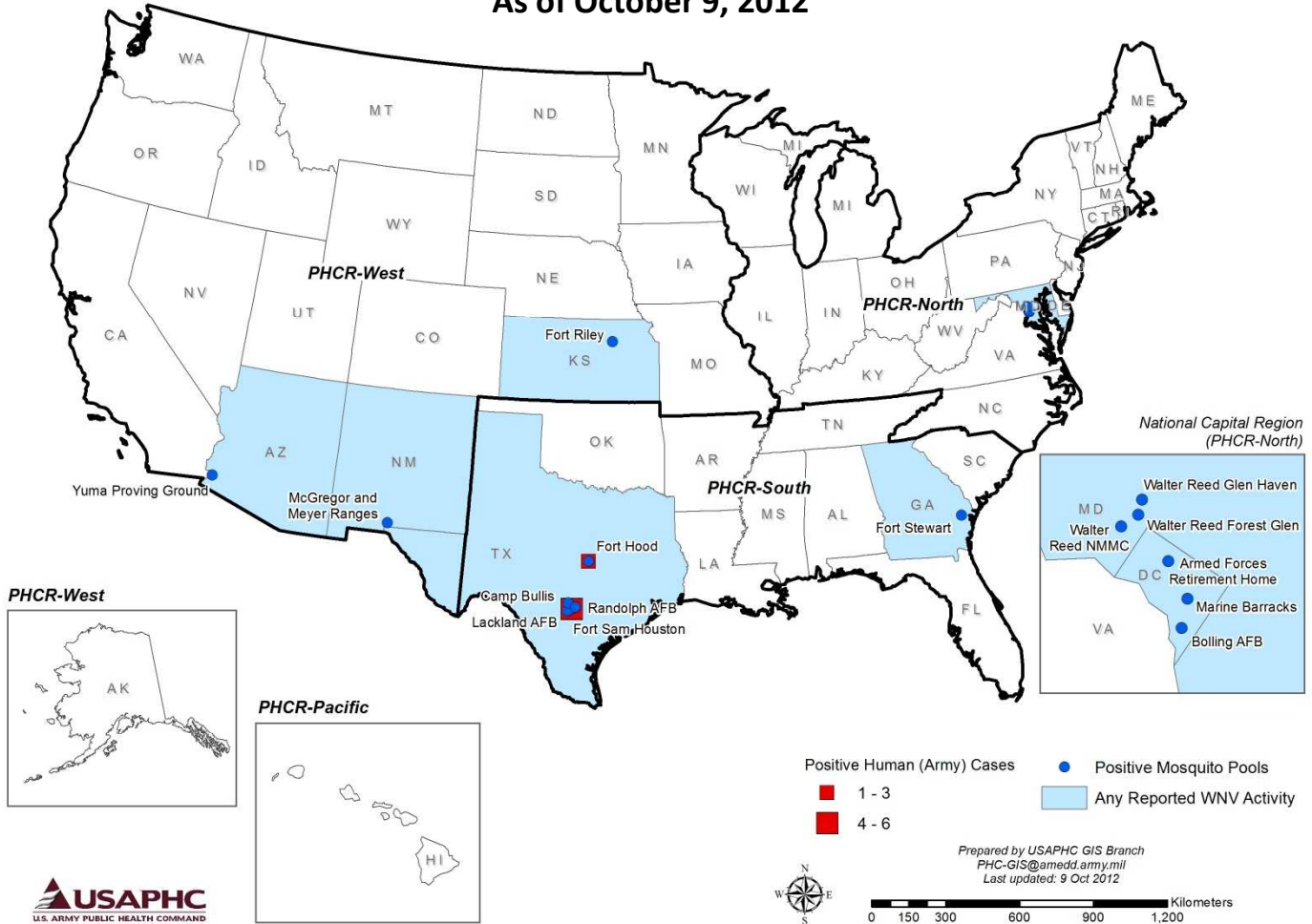


Note: Provisional data, as of 2 October 2012.

Source: West Nile virus and other arboviral activity—United States, 2012 Provisional data reported to ArboNET. Tuesday, October 2, 2012.

West Nile Virus Activity, by State and Army Public Health Command Region (PHCR), United States, 2012

As of October 9, 2012



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.