

Army Vector-borne Disease Report

28 August 2012

Data is preliminary and subject to change

Click on map to enlarge.

- **West Nile Virus:** CDC reports 453 additional cases since 14 August; Army reports 5 cases including one death.
- **WNV mosquito trends:** PHCR-North and PHCR-South report 36 additional positive mosquito pools since the previous report.
- **Tick-borne diseases:** In 2012, the majority of Army Lyme disease case reports are for dependents in PHCR-Europe and PHCR-North; to date, 3 confirmed cases of Ehrlichiosis/Anaplasmosis among Army personnel have been reported.

West Nile Virus (WNV)

United States

- 629 (56%) of WNV cases were neuroinvasive (i.e., meningitis or encephalitis).
- 36 states report human cases of neuroinvasive disease, 4 more than last week.
- 74% (n=829) of cases have been reported from five states (TX, MS, LA, SD, and OK); TX reported almost half of all cases (n=537).

Cases in Army Personnel

- No additional fatalities have been reported among Army personnel since the 23 August report.
- The average age of Army cases is 60 (range 43-77 years).
- Joint Base San Antonio-Fort Sam Houston (JBSA-FSH) reports 2 confirmed and 2 probable cases (1 more than last week), including the previously reported fatality in a retiree.
- Fort Hood reported its first probable WNV case; geographic exposure history of the retiree is unknown.

DoD Mosquito Surveillance from Army Laboratories

- PHCR-North reports 47 positive pools (increase of 9) from 14 locations (in MD, VA, and Washington D.C.); PHCR-South reports 60 positive pools (increase of 27) (53 from JBSA-FSH, 3 from Camp Bullis, 1 from Randolph AFB, 3 from Lackland AFB); PHCR-West reports no additional positive pools—previously reported 4 positive pools from 2 locations (Meyer Range and McGregor Range, Fort Bliss).

Prevention and Control Activities

- JBSA-FSH: PHCR-South is working with JBSA-FSH Preventive Medicine assets which are leading the WNV response at JBSA-FSH; the 502nd Civil Engineering Squadron is providing vector control support.
 - In response to increased WNV activity, adulticide fogging in addition to standard larvicide is planned.
- Fort Hood conducts weekly mosquito trapping and continues to provide education on mosquito precautions and personal protective measures; no positive mosquito pools have been reported from Fort Hood.

CDC: West Nile virus (WNV) activity reported to ArboNET, by state, United States, 2012 (as of August 21, 2012)



2012 WNV Human Cases

Population	Previous Week [¥]	Year to Date
United States ^β	425	1118

Army Cases

Confirmed and Probable

Army Active Duty [‡]	0	1
Army Beneficiaries	3	4

2012 WNV Human Deaths

United States	15	41
Army Retirees	1 [†]	1

Note: Reporting location may differ from exposure location.
Source: CDC, AIPH DRSI, and official communication.

[¥]National cases reported 14- 21 Aug.; Army cases reported 21- 27 August.

^βIncludes neuroinvasive and nonneuroinvasive cases.

[‡]Includes recruits and cadets.

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

Lyme Disease

- 62% (n=60) of all reported confirmed Lyme disease cases in 2012 occurred in Army beneficiaries, 45 of whom are dependents.
- From 1 Jan– 27 Aug 2012, ERMC reported the largest proportion of Army Lyme disease cases (49%), including 57% of all active duty (AD) cases.
- The majority of *Borrelia burgdorferi* (the causative agent of Lyme disease) positive ticks submitted to the DoD Human Tick Test Kit Program in 2012 were from NY, NJ, PA, MA, and MN; 28% (79/282) of all samples tested from all areas were positive for *B. burgdorferi*.

2012 Lyme Disease Cases		
Population	Previous Week [¥]	Year to Date
United States	236	14,267 ^β
Confirmed Army Cases		
Army Active Duty [‡]	2	37
Army Beneficiaries	4	60
Regional Case Distribution		
PHCR-Europe	3	48
PHCR-North	3	29
PHCR-South	0	11
Other/Unknown	0	9

Source: CDC and AIPH DRSI. Note: Reporting location may differ from exposure location.

[¥]National cases reported 14- 21 Aug.; Army cases reported 21- 27 August.

^βNational cumulative case counts decreased by 175 cases between weeks 32 and 33.

[‡]Includes recruits and cadets.

Ehrlichiosis/Anaplasmosis

- Low numbers of ehrlichiosis/anaplasmosis cases (0 deaths) have been reported in 2012.
- To date, 7% (127/1862) of all potential *Ehrlichia* tick vectors (*Amblyomma americanum*=lone star tick) submitted to the DoD Human Tick Test Program were positive for one or more *Ehrlichia* species.
- From 21-27 Aug., 7 potential ehrlichiosis tick vectors removed from DoD personnel were positive for *Ehrlichia* (6 from Fort Pickett, VA and 1 from Fort Knox, KY).
- *A. americanum* is the most common tick biting Soldiers in the SE and mid-Atlantic U.S.; untreated ehrlichiosis can be fatal.

2012 Ehrlichiosis/Anaplasmosis

Population	Previous Week [¥]	Year to Date
United States ^β	18	1098

Army Cases[†]

Army Active Duty [‡]	0	2
Army Beneficiaries	0	1

Regional Case Distribution

PHCR-Europe	0	1
PHCR-North	0	1
PHCR-South	0	0
Other/Unknown	0	1

Source: CDC and AIPH DRSI. Note: Reporting location may differ from exposure location.

[¥]National cases reported 14- 21 Aug.; Army cases reported 21- 27 August.

^β*E. chaffeensis* and *A. phagocytophilum*

[†]Confirmed cases only.

[‡]Includes recruits and cadets.

Additional Resources: CDC West Nile Virus • CDC US Tickborne Diseases • Human Tick Test Program • USAPHC WNV Fact Sheet
Previous Army Vector-borne Disease Reports

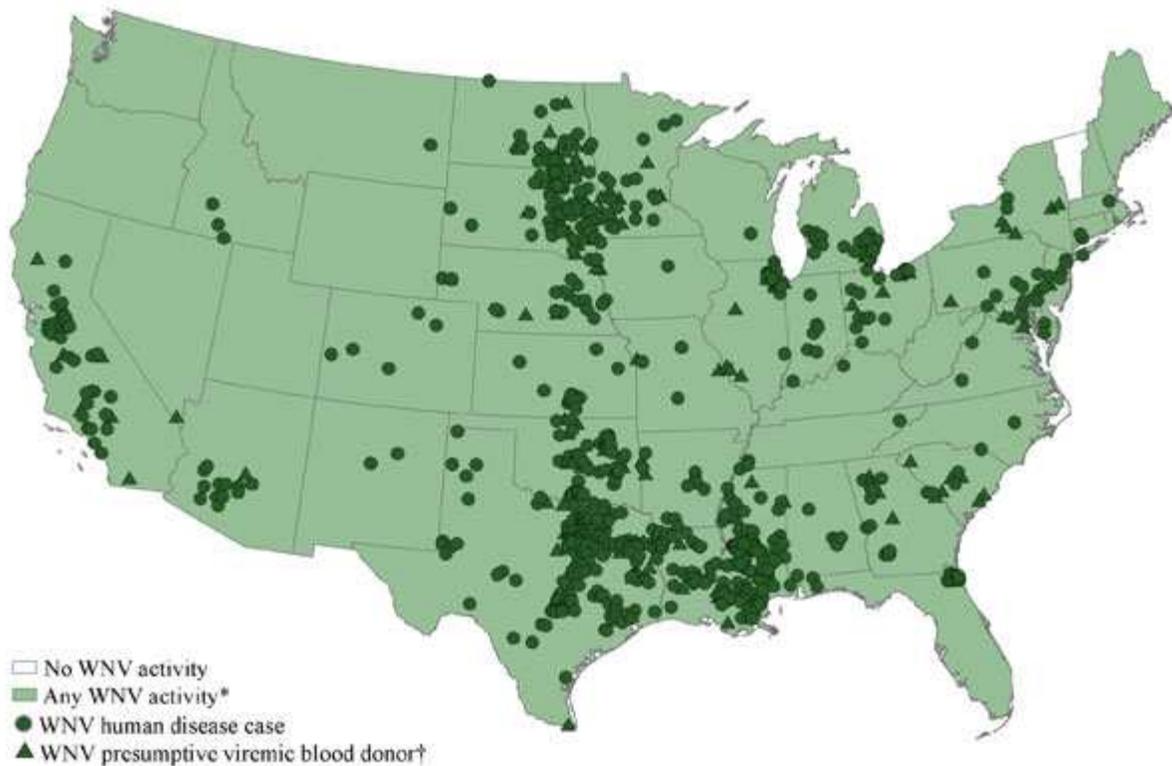
Key: CDC-Centers for Disease Control and Prevention; DRSI-Disease Reporting System Internet; Mosquito pool-1 to 50 mosquitoes

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

Questions?

<http://phc.amedd.army.mil>

CDC: West Nile virus (WNV) activity reported to ArboNET, by state, United States, 2012 (as of August 21, 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>