



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

03 October 2013

Data are preliminary and subject to change

- **West Nile virus:** CDC reports 1135 human cases including 44 deaths for calendar year 2013; Army reports one new confirmed case for a total of two cases in 2013, neither resulting in death.
- **WNV mosquito pools:** PHCR-West reported 13 positive mosquito pools, all at Ft. Bliss; PHCR-North reported four new positive pools; PHCR-South did not report.
- **Malaria:** To date in 2013, 17 cases of malaria have been reported in Army beneficiaries; 10 cases were reported as duty-related.

West Nile Virus (WNV)

United States

- From the last published report up through 24 September 2013, 245 additional human WNV cases have been reported to the CDC, including 11 deaths.
- The majority of cases (53%, n=606) are classified as non-neuroinvasive.
- As of 24 September, 48 states and Washington, D.C. report WNV activity of some type (infections in humans, birds, or mosquitoes).
- No new states reported WNV human infections.

Cases in Army AD and Other Beneficiaries

- Since the last published report, one new confirmed WNV infection in Army AD was reported from Fort Carson.
- Two individuals with WNV-related diagnoses have been identified in purchased care records; however, as the case statuses cannot be confirmed, they are excluded from this report.
- No WNV fatalities have been reported among Army beneficiaries this year.

DoD Mosquito Surveillance from Army Laboratories

- PHCR-North reports 4 positive pools in the greater DC metropolitan area.
- PHCR-West reports 13 positive pools from Fort Bliss, TX.
- PHCR-South did not report.

West Nile Virus Activity by State – United States, 2013 (as of September 17, 2013)



Limitations due to partial government shutdown

- CDC data for the last week of September was not available.
- PHC regions were unable to submit complete mosquito pool data.
- The Army West Nile Virus Activity Map could not be updated for this report.
- Limited editorial review from contributing programs.
- Unable to post this report to the USAOPHC website.

WNV Human Cases ^β		
Population	Reporting Period ^γ	Cum. 2013
United States	245	1,135
Army Cases [±] Confirmed and Probable		
Army AD [‡]	1	2
Army Non-AD [†]	0	0
WNV Human Deaths		
United States	11	44
Army	0	0

Sources: CDC as of 24 September 2013 and AIPH DRSi as of 01 October 2013.

Note: Reporting location may differ from exposure location.

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

^γ Difference between last published report and this week's cumulative 2013 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.

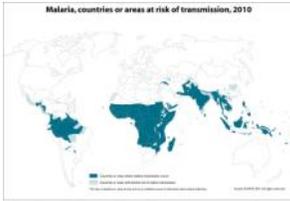
[‡] Active duty, recruits, cadets.

[†] Army-associated beneficiaries.

Mosquito Pool Testing	PHC Region	Reporting Period ^γ	Year to Date 2013
		No. Positive (No. Tested)	No. Positive (No. Tested)
	North	4 (Unknown)	37 (>460)
	South	No Report	10 (1027)
	West	13 (30)	16 (159)

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

Malaria



- Most cases of malaria in humans are caused by four species of parasite: *P. falciparum*, *P. malariae*, *P. vivax* and *P. ovale*. *P. falciparum* is the species most likely to result in severe disease and death.
- As of 21 September 2013, 942 cases of malaria had been reported in the United States. An average of 1500 cases are reported annually. In 2010, there were an estimated 219 million cases globally.
- Malaria was eliminated from the United States in the early 1950's but rare, sporadic local transmission occurs when cases are imported from malaria-endemic countries.

Army and Army Beneficiaries

- Year to date, 17 cases of malaria have been reported in Army beneficiaries. 10 of these cases were indicated as duty-related, eight of which were related to deployment.
- Four of the non-AD cases were children and one was a non-activated reservist. All cases had been in Africa. Three children had recently relocated to the US; the two other cases had visited and taken no chemoprophylaxis.
- The [Malaria Field Guide](#) outlines methods of prevention, diagnosis and treatment of malaria.

Malaria Prevention and Mosquito Control

- Pre-exposure prophylactic medication is very important when traveling to malaria-endemic regions. Prescriptions should be based on a patient's medical history and itinerary. The "Take Your Medication" [Poster](#) and [Tip Card](#) provides information on potential chemoprophylaxis.
- When in a malaria-endemic region, travelers should make use of all available preventive measures including the use of insect repellants (20-50% DEET) and permethrin-treated bed nets and clothing.
- Information on Permethrin Factory Treated Army Combat Uniforms can be found [here](#).

Malaria Infection			
Population	Reporting Period ^γ	Cum. 2013	Cum. 2012
United States ^β	5	942	1,115
Army Cases [±] Confirmed and Probable			
Army AD [‡]	2	12	18
Army Non-AD [†]	2	5	0
Regional Case Distribution			
PHCR-North	2	5	6
PHCR-West	0	5 [§]	1
PHCR-South	0	1	1
PHCR-Europe	0	1	1
PHCR-Pacific	1	1	6
CENTCOM	1	4	3

Sources: CDC and AIPH DRSi.

Note: Reporting location may differ from exposure location.

^β Provisional cases through 21 September 2013 and 22 September 2012 (week 38), excludes U.S. territories.

^γ Cases reported in week 38 (15-21 September 2013)

[±] Confirmed and probable cases from 1 January-1 October 2013.

[‡] Active duty, recruits, cadets.

[†] Army-associated beneficiaries.

[§] Includes one case reported from a non-Army MTF.

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: USAPHC Disease Epidemiology or 410-417-2377

West Nile Virus Activity by State – United States, 2013 (as of September 24, 2013)



**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:

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

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

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

Malaria, countries or areas at risk of transmission, 2010



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.



Source: International Travel and Health 2012 Edition. World Health Organization. Last updated 2011. Available at: http://gamapservr.who.int/mapLibrary/Files/Maps/Global_Malaria_ITHRiskMap.JPG.