Dallas County Health and Human Services
Arbovirus Surveillance Report

Week 33 ending August 18, 2018

- In week 32, sixteen mosquito traps tested positive for WNV in *Culex quinquefasciatus*. In week 33 to date, twenty-one mosquito traps tested positive for WNV in *Culex quinquefasciatus.* Positive traps were located in the following zip codes: 75041, 75043, 75044, 75115, 75149, 75150, 75180, 75181, 75205, 75217, 75225, 75229, 75230, 75234, and 75244.
- To date, five human WNV cases were reported in 2018, including one who died.
- In 2018, no travel-associated confirmed human Zika cases have been identified in Dallas County. Three pregnant women with laboratory criteria for possible Zika infection have been reported to CDC for inclusion in the US Zika Pregnancy Registry.
- *Aedes albopictus* and *Aedes aegypti* are currently circulating in the area.

Table 1. Mosquito Laboratory and Human Case Surveillance Data for WNV in *Cx. quinquefasciatus*, Dallas County

Week Ending	07/07	07/14	07/21	07/28	08/04	08/11	08/18	YTD
MMWR Week	27	28	29	30	31	32*	33*	
Total Traps Placed in Dallas County [a]	175	245	254	251	251	243	257	4,780
Number of Positive Mosquito Traps (PHL; IL)[b,c]	4; 0	9; 0	13; 0	10; 0	16; 4	16; 0	21; 0	102; 4
Number of Pools Tested (PHL; IL) [b,c]	144; 22	207; 29	214; 31	218; 30	209; 26	204; 27	215; 29	3,234; 444
Number of Trap Results Currently Pending	0	0	0	0	0	0	0	
Average Number of *Cx. quinquefasciatus* per Trap [d]	30.1	40.7	24.4	30.2	32.6	27.5	35.9	25.6
Total Number of *Cx. quinquefasciatus* Trapped and Tested	4,196	6,813	5,357	5,704	6,421	5,437	6,728	85,484
Number of Positive Mosquito Pools (PHL; IL) [c]	4; 0	9; 0	13; 0	10; 0	16; 5	16; 0	21; 0	106; 5
WNV Infection Rate per 1,000 *Cx. quinquefasciatus* [e]	0.96	1.35	2.48	1.77	3.45	3.07	3.35	
Weekly Vector Index (VI) [f]	0.03	0.06	0.06	0.05	0.11	0.08	0.12	
Presumptive WNV Viremic Blood Donors	0	0	0	0	0	0	0	0
WNV Human Cases (WNND; WNF) [g]	0; 0	2; 0	0; 0	0; 0	0; 0	2; 0	1; 0	5; 0

Table 2. Mosquito Laboratory and Human Case Surveillance Data for Chikungunya, Dengue and Zika Virus, Dallas County

Week Ending	07/07	07/14	07/21	07/28	08/04	08/11	08/18	YTD
MMWR Week	27	28	29	30	31	32*	33*	
Total Biogents Sentinel-Traps Placed in Dallas County [h]	30	26	28	30	23	27	10	406
Average Number of *Aedes per* Trap [i]	13.8	5.5	22.9	14.5	17.3	16.8	13.1	11.8
Chikungunya Human Cases (Confirmed & Probable) [j]	0	0	0	0	0	0	0	0
Dengue Human Cases (Confirmed & Probable) [k]	0	0	0	0	0	0	0	0
Zika Human Cases (Confirmed & Probable) [l]	0	0	0	0	0	0	0	0
Pregnant Women with Possible Zika Infection [m]	0	0	0	0	1	0	0	3

***Data for most recent 2 weeks are preliminary, and reflect results reported as of 12:30 p.m. August 20, 2018.**

a. All traps deployed in municipalities submitting data to DCHHS since January 1, 2018. Includes traps without mosquitoes, malfunctioning traps and traps with pending results
b. Excludes traps without female *Culex quinquefasciatus* identified. Maximum of 50 female *Culex quinquefasciatus* per pool; more than 1 pool may be tested per trap
c. PHL = Public health laboratory (DSHS, DCHHS) testing performed by viral culture or CDC RT-PCR protocol; IL = Testing from independent labs by alternate methods
d. Average abundance of female *Culex quinquefasciatus* mosquitoes per trap night/week (excludes non-working traps)
e. WNV Infection rates calculated using a Maximum Likelihood Estimation (MLE). *Biggerstaff BJ. PooledInfRate, version 4.0; Microsoft Excel Add-In; CDC 2007*
f. The Vector Index (VI) reflects the MLE adjusted for *Culex quinquefasciatus* abundance. VI= $\sum_i \bar{N}i\hat{P}i$, where *N* is the average number of *Culex quinquefasciatus* mosquitoes collected per trap night and $\hat{P}$ is the estimated infection rate
g. Human cases by week of report to health department. WNND = West Nile Neuroinvasive Disease; WNF = West Nile Fever
h. All Biogents (BG) Sentinel traps deployed in municipalities submitting data to DCHHS since Week 13.
i. Average abundance of *Aedes albopictus* and A*edes aegypti* mosquitoes per night/trap in BG-Traps (excludes non-working traps)
j. Human CHKV cases by week of report to health department (AT : Autochthonous case; I : imported)
k. Human Dengue cases by week of report to the health department
l. Confirmed and probable human Zika cases by week of specimen collection date
m. Possible Zika Virus Infection Among Pregnant Women — United States and Territories, May 2016, http://www.cdc.gov/mmwr/volumes/65/wr/mm6520e1.htm/