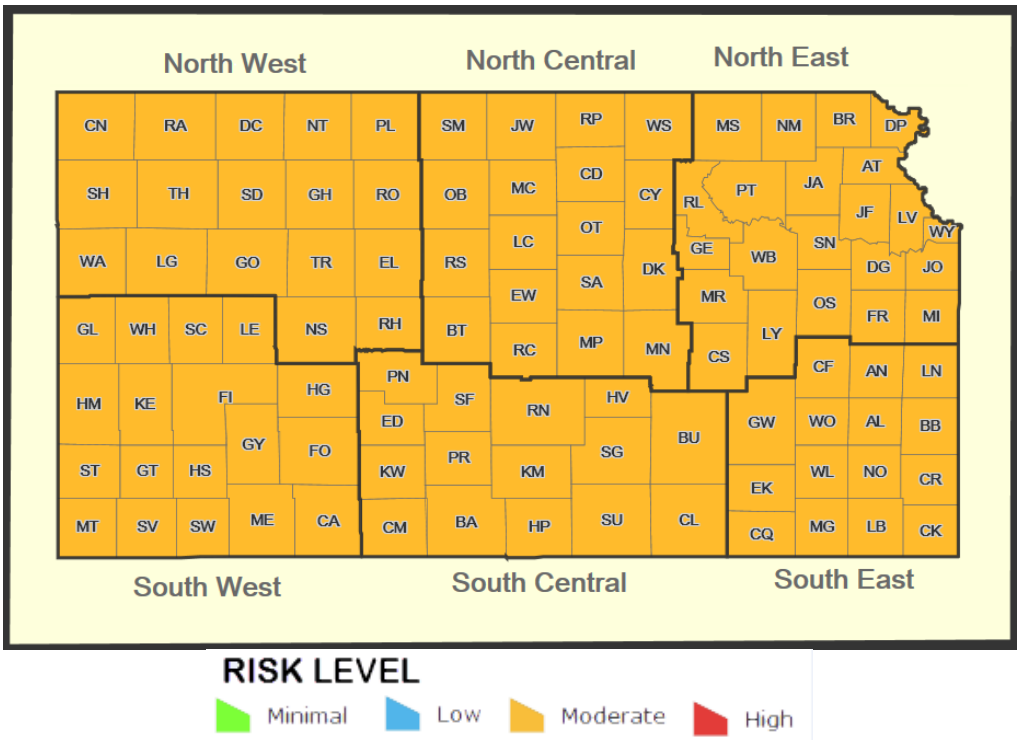
Kansas West Nile Virus Weekly Surveillance and Transmission Risk Report

Week Ending September 21, 2018 (MMWR Week 38)



Key to West Nile virus Risk Levels in Kansas - 2018		
Risk	**What it Means**	**What You Can Do**
Minimal	Mosquito surveillance is conducted mid-May – mid-October however infection with WNV is unlikely. This does not mean the risk is zero.	**To Prepare:** Know your risk – check regularly at http://www.kdheks.gov/epi/arboviral_disease.htm Mosquito-Proof Your Home: • Keep screens on windows and doors in good repair. • Use air conditioning if you have it. • DRAIN - Reduce number of mosquitoes around your home by emptying standing water from flowerpots, gutters, buckets, pool covers, pet water dishes, discarded tires, and birdbaths on a regular basis.
Low	The mosquitoes that carry WNV is present in small numbers. There is a low probability of being bitten by an infected mosquito.	**To Prevent:** • Wear mosquito repellent between dusk to dawn • Wear long sleeves and long pants from dusk to dawn • Use mosquito netting on baby carriages and playpens
Moderate	There is a moderate probability of being bitten by a WNV mosquito.	**To Prevent: add to previous level** • Wear mosquito repellent • Wear long sleeves and long pants when weather permits • Use mosquito netting on baby carriages and playpens • Dump standing water twice weekly
High	This week has been identified as 'high risk' of being bitten by a WNV mosquito based on: high number of WNV mosquitoes identified and high number of historical human cases of WNV.	**To Prevent: add to previous level** • People over 50 or those who are immune compromised may consider adjusting outdoor activity to avoid peak mosquito hours (from dusk to dawn).

Kansas Department of Health and Environment

Highlights this week:

- **Northwest:** Moderate risk due to same value in two week average temperature and *Culex* species mosquito abundance remaining higher than the same week in 2017
- **North Central:** Moderate risk due to same value in two week average temperature and *Culex* species mosquito abundance remaining higher than the same week in 2017
- **Northeast:** Moderate risk due to decrease in two week average temperature, increase in historical human cases, and *Culex* species mosquito abundance remaining lower than the same week in 2017
- **Southwest:** Moderate risk due to same value in two week average temperature and *Culex* species mosquito abundance remaining higher than the same week in 2017
- **South Central**: Moderate risk due to same value in two week average temperature, increase in historical human cases, and *Culex* species mosquito abundance remaining higher than the same week in 2017
- **Southeast**: Moderate risk due to increase in same value in average temperature and *Culex* species mosquito abundance remaining lower than the same week in 2017

Methods for Risk Assessment

We utilize three factors in our risk assessment model; temperature, mosquito surveillance data, and human cases of WNV. Each factor has set benchmarks and each benchmark is assigned a value. The values from these three categories are averaged. The average rating is assigned a WNV risk level for each week. The three factors are as follows:

- High-risk environmental conditions include above-normal temperatures with or without above-normal rainfall. We use the average daily temperature during the prior 2 weeks as our benchmark.
- Culex species of mosquitoes serve as the main source of WNV transmission to people and horses. Relative abundance of *Culex* species mosquitoes compared to the same week in the previous year are compared.
- Number of human cases of WNV each week based on the average number of cases in the previous five years.

For WNV human case counts updated weekly, visit http://www.kdheks.gov/epi/case_reports_by_county.htm.

For more information on arboviral disease surveillance in Kansas, visit our website at; http://www.kdheks.gov/epi/arboviral_disease.htm or contact the Kansas Department of Health and Environment's Infectious Disease Epidemiology and Response section at 1-877-427-7317 or e-mail at kdhe.epihotline@ks.gov.

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