

Bureau of Epidemiology & Public Health Informatics



EPI UPDATES

June
2018

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Kansas Department of
Health & EnvironmentBureau of Epidemiology &
Public Health InformaticsFarah Ahmed, MPH, PhD
Environmental Health Officer &
State EpidemiologistLou Saadi, Ph.D., Director,
BEPHI & State RegistrarSheri Tubach, MPH, MS,
Director, IDERShannon Sandall
Director, Surveillance Systems
& *Epi Updates* EditorDaniel Neises, MPH
Senior EpidemiologistChelsea Raybern, MPH
Senior EpidemiologistIngrid Garrison, MPH, DVM,
DACVPM, State Public
Health VeterinarianCurtis State Office Building
1000 SW Jackson St.
Topeka, KS 66612Email: epihotline@kdheks.gov

Epi Hotline: 877-427-7317

Fax: 1-877-427-7318

West Nile Virus Risk Levels and Surveillance System

by Amie Worthington, MPH

West Nile virus (WNV) is the leading cause of domestically acquired arboviral disease in the United States. During the last three years, there has been a median of 34 cases of WNV in Kansas. In 2017, zero out of 27 cases died as a result of WNV and 20 were hospitalized.

The Kansas Department of Health and Environment (KDHE) has adapted mosquito surveillance over the last 15 years. After the infusion of WNV funding decreased, mosquito surveillance was focused in Sedgwick County based on historical human case data. From 2013-2016, mosquito data from Sedgwick County served as a proxy for mosquito activity for the entire state. In 2017, KDHE received additional funds for Zika virus response which allowed Kansas to add two new counties, Shawnee and Reno, to the mosquito surveillance program. In 2018, Sedgwick, Shawnee, and Reno counties will continue to perform surveillance. Mosquito surveillance began mid-May and will continue weekly through mid-October 2018.

In 2017, KDHE developed "WNV Risk Levels" to help people better understand the weekly "risk" for one of the three regions of state. This year we have subdivided the state into the traditional six regions and have also added temperature data. Warmer temperatures increase the rate of mosquito larvae development, reduces the time from larvae to adult mosquito emergence, and increases the mosquito population. In Kansas, the risk levels (Table 1) are determined by the number of WNV mosquitoes (*Culex* species) that are present, historically risky weeks for human WNV infection, and the average temperature for the previous two weeks. WNV risk levels are updated weekly on our website as well as in a weekly report. Local health departments can use the risk levels to inform their citizens about the prevention measures they should take. This information should also be distributed to long term care facilities since the residents are a high-risk population for developing complications from WNV.

For more information and so stay updated on weekly risk levels, visit KDHE's arboviral website at http://www.kdheks.gov/epi/arboviral_disease.htm.



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Table 1: West Nile Virus Risk Levels in Kansas

Key to West Nile virus Risk Levels in Kansas - 2018		
Risk	What it Means	What You Can Do
Minimal	The mosquito species that carries WNV has not been detected. This does not mean the risk is zero.	<p>To Prepare: Know your risk – check regularly at http://www.kdheks.gov/epi/arboviral_disease.htm</p> <p>Mosquito-Proof Your Home:</p> <p>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.</p>
Low	The mosquito species that carries WNV has been detected. Infection with WNV is unlikely.	<p>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</p>
Moderate	High numbers of mosquitoes that can spread WNV have been detected. Infection with WNV is likely or has already occurred.	<p>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</p>
High	This week has been identified as a 'high risk' WNV infection week based on historical human cases. Many people may get infected with WNV in your area.	<p>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).</p>

June Public Health Observances

Men's Health Month

Men's Health Network
 P.O. Box 75972
 Washington, DC 20013
 (202) 543-6461 x101
 (202) 543-2727 Fax
info@menshealthweek.org
www.menshealthmonth.org

National Safety Month

National Safety Council
 1121 Spring Lake Drive
 Itasca, IL 60143-3201
 (800) 621-7615
 (630) 775-2307
 (630) 285-1315 Fax
media@nsc.org
www.nsc.org/act/events/Pages/national-safety-month.aspx

Fireworks Safety Month

American Academy of Ophthalmology
 P.O. Box 7424
 San Francisco, CA 94120-7424
 (415) 561-8534
media@aao.org
aao.org/eyesmart

National Congenital Cytomegalovirus Awareness Month

National CMV Foundation
 P.O. Box 18322
 Tampa, FL 33679
 (813) 207-0017
june@nationalcmv.org
www.nationalcmv.org



UPDATE EPITRAX DATA QUALITY INDICATORS

by Sheri Tubach, MPH MS

The Bureau of Epidemiology and Public Health Informatics has implemented a set of monthly quality indicators and performance measures to encourage data quality improvement in EpiTrax and timeliness of investigations. For 2018, there have been some notable changes. I have now included four additional surveillance indicators; food handler, group living, health care worker, and daycare attendee or worker. These four fields are on the Epidemiological Tab in EpiTrax.

Additionally, I am no longer utilizing the fields 'Date LHD investigation started' or 'Date LHD investigation completed' to calculate the performance measures of disease control measures implemented or case investigation completed. Instead, I am calculating percent of cases that have the first interview attempted by the disease target and the percent of cases that have the interview completed by the disease target. Disease targets can be found in the table below. I hope that these performance measures will be more helpful in prioritizing case investigations.

For questions, contact Sheri Tubach at sheri.tubach@ks.gov

May 2018	State's Total Number of Cases* = 263	
EpiTrax Indicators		
EpiTrax Field	Number of Cases with Field Completed	Percent Completed
Address City	262	100
Address County	263	100
Address Zip	257	98
Date of Birth	263	100
Daycare attendee or worker†	89	34
Died	229	87
Ethnicity†	216	82
Food handler†	97	37
Group living†	162	62
Healthcare worker†	141	54
Hospitalized	226	86
Occupation	152	58
Onset Date	202	77
Pregnancy††	85	77
Race †	224	85
Sex †	262	100
Persons Interviewed	153	58
Persons Lost to Follow-Up	13	5
Persons Refused Interview	2	1
Persons Not Interviewed	95	36
	Number of Cases	Percent of Cases
Interview was attempted within the target for each disease [^]	97	43
Case investigations were completed within the target for each disease [^]	79	35

*Calculations do not include Hepatitis B - chronic, Hepatitis C - Chronic or acute, or Animal Rabies

** Out-of-state, discarded, deleted or those deemed to be not a case are not included in this calculation.

† Unknown considered incomplete.

†† Pregnancy completeness calculated on females only

[^] See the table below for interview attempt and completed case interview targets

Disease Targets

Diseases	Disease Control (Days)*	Completed Case Investigation (Days)**
Anthrax; Botulism; Brucellosis; Cholera; Diphtheria; Hantavirus Pulmonary Syndrome; Hepatitis A; Influenza deaths in children <18 years of age; Measles; Meningitis, bacterial; Meningococccemia; Mumps; Plague; Poliomyelitis; Q Fever; Rabies, human; Rubella; Severe acute respiratory syndrome (SARS); Smallpox; Tetanus; Tularemia; Viral hemorrhagic fever; Yellow fever	1	3
Varicella	1	5
Pertussis	1	14
Campylobacter infections; Cryptosporidiosis; Cyclospora infection; Giardiasis; Hemolytic uremic syndrome, post diarrheal; Hepatitis B, acute; Legionellosis; Listeriosis; Salmonellosis, including typhoid fever; Shigellosis; Shiga-toxin <i>Escherichia coli</i> (STEC); Trichinosis; Vibriosis (not cholera)	3	5
Arboviral disease (including West Nile virus, Chikungunya, and Dengue); <i>Haemophilus influenzae</i> , invasive disease; <i>Streptococcus pneumoniae</i> , invasive	3	7
Ehrlichiosis / Anaplasmosis; Lyme disease; Malaria; Spotted Fever Rickettsiosis	3	14
Hepatitis B, chronic; Hepatitis C, chronic; Hepatitis C, acute; Leprosy (Hansen disease); Psittacosis; Streptococcal invasive, drug-resistant disease from Group A Streptococcus; Toxic shock syndrome, streptococcal and staphylococcal; Transmissible spongiform encephalopathy (TSE) or prion disease	N/A	N/A

***Disease Control:** Calculated by using EpiTrax Fields: **(Date LHD Investigation Started) OR (Call Attempt 1 date for Salmonellosis and STEC) - (Date Reported to Public Health) OR (Date Reported to KDHE)**

****Completed Case Investigation:** Calculated by using EpiTrax fields: **(Date LHD Investigation Completed) - (Date Reported to Public Health) OR (Date Reported to KDHE)**

Monthly Disease Counts

Please refer to the Cumulative Case Reports of Diseases (http://www.kdheks.gov/epi/case_reports_by_county.htm) for current case count information.

EpiTrax Help Desk

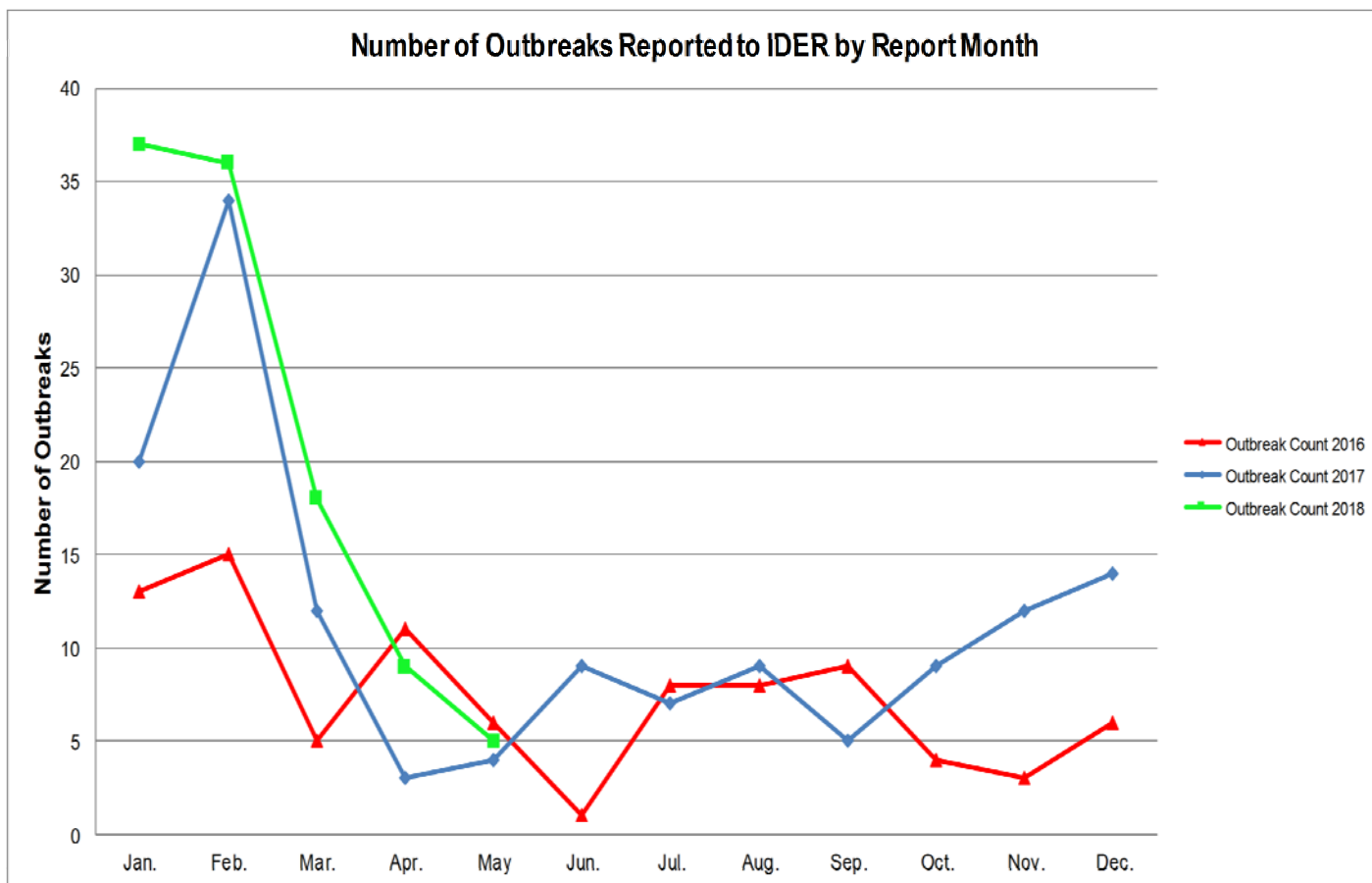
Do you need a password reset or your account unlocked? Are your Alerts giving you a hard time? Do you need help filtering your Events? If you answered yes to any of these questions, then please contact Cory Brockman! Cory is our EpiTrax Coordinator and is ready to help! You can reach him by phone at (785) 296-6543 or by email at KDHE.EpiTraxAdmin@ks.gov.

Coming Next Month...

We will be starting a new Epi Spotlight feature! You know their names and voices, but we want you to get to know them! Please look for this new section in the July edition! Who do you think will be first?



Outbreaks Report



Date Reported	Facility Type	Transmission/Exposure	Disease/Condition	County
5/8/2018	Other	Animal Contact	Salmonellosis	Multiple Counties
5/14/2018	Day Care Facility	Person-to-person	Shiga toxin-producing Escherichia coli (STEC)	Reno
5/22/2018	Adult care facility	Person-to-person	Human Metapneumovirus	Johnson
5/22/2018	Day Care Facility	Person-to-person	Sapovirus	Reno
5/25/2018	School or college	Person-to-person	Varicella (Chickenpox)	Douglas

The Disease Investigation Guidelines have been revised to agree with the recent regulations updates to the reporting of and isolation and quarantine for infectious or contagious diseases and other health conditions ([K.A.R. 28-1-1 through 28-1-18](#)).

You can access the Disease Investigation Guidelines at: http://www.kdheks.gov/epi/disease_investigation_guidelines.htm