Bureau of Epidemiology & Public Health Informatics

Kansas Department of Health and Environment

EPI UPDATES

Volume 7, Issue 8

August 2016

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Kansas Department of Health & Environment

Bureau of Epidemiology & Public Health Informatics

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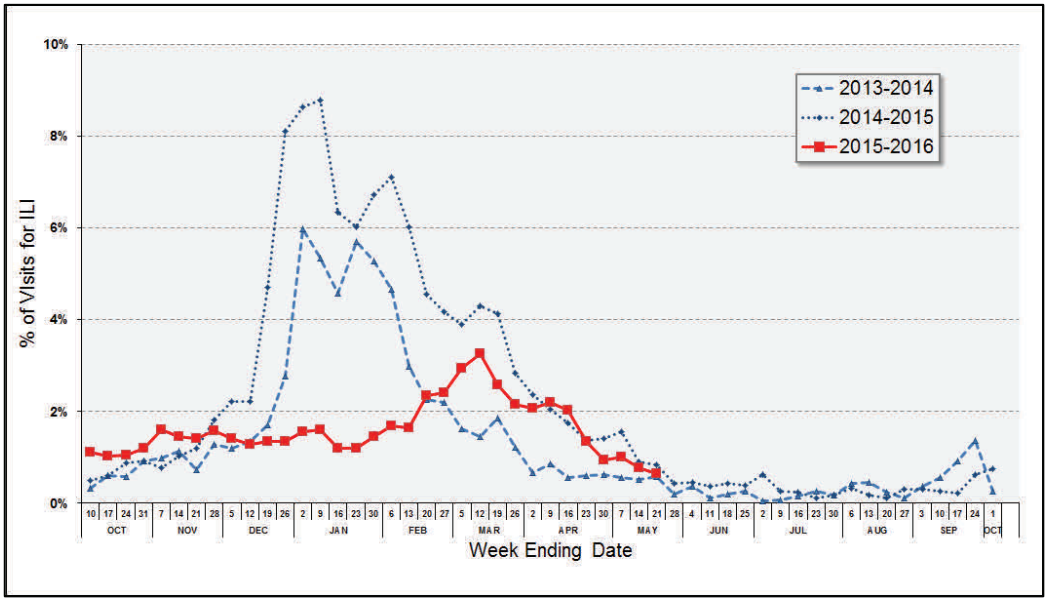
Kansas Influenza Surveillance

by Amie Worthington

Influenza is not a nationally notifiable disease, nor is it a notifiable disease in Kansas. Kansas utilizes sentinel sites to track influenza-like illness (ILI). The U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet) is a collaboration between the CDC and state, local, and territorial health departments. Influenza-like illness is defined by the CDC as fever (≥100°F) with cough or sore throat, in the absence of a known cause other than influenza. ILINet sites are also asked to submit up to two specimens per week to the Kansas Health and Environmental Laboratories (KHEL) for PCR testing.

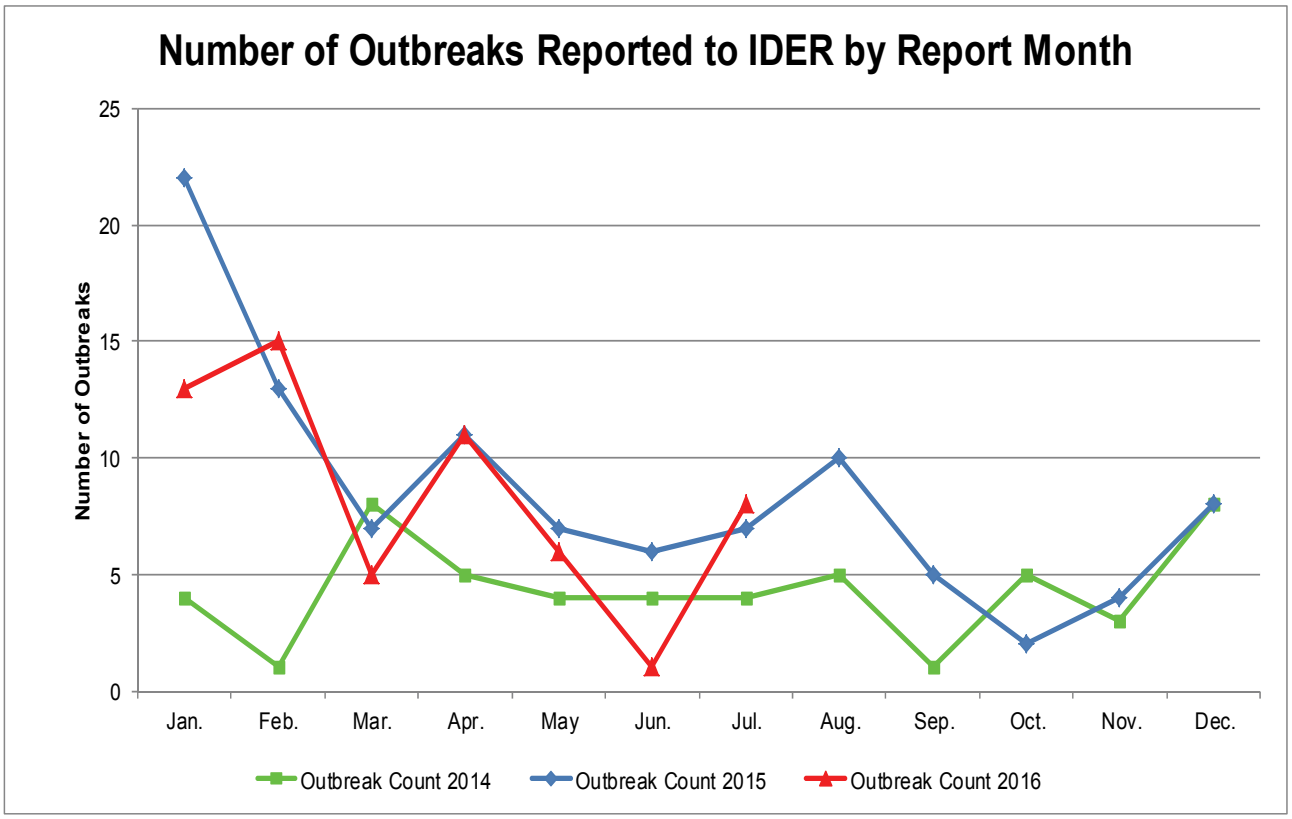
Thirty-six ILINet sites in Kansas report the number of patients seen who meet the ILI definition weekly compared to the total number of patients seen for any reason. The rate of ILI rose steadily from February 2016 through March 2016. The ILI rate peaked at 3.3% during the week ending March 12, 2016. The rate of ILI dropped below 2% during the week ending April 23, 2016 and remained low through the end of the surveillance period (Figure 1).

Figure 1. Percentage of visits for influenza-like illness (ILI) reported by ILINet sites, Kansas, October 2015 – May 2016 and previous two surveillance periods*



KHEL provided confirmatory testing for ILINet site patients with ILI, as well as for hospitalized patients throughout the state. Four influenza viruses were detected in Kansas: A/H1, A/H3, and two B lineages. The predominant strain in Kansas and the U.S. was A/H1.

During the 2015-16 influenza season, 12 deaths were directly attributed to influenza. This was a sharp decline from the previous season with 95 deaths. Of the Kansas deaths, 42% were among those between the ages of 45-64 years. Four influenza outbreaks in long-term care facilities were investigated during the 2015-16 influenza season.



Date Reported	Exposure Setting	Transmission	Disease	County
7/11/2016	Restaurant	Food	Salmonellosis	Multistate
7/12/2016	Child care center	Person-to-Person	Salmonellosis	Riley
7/13/2016	Travel	Food	Campylobacteriosis	Sedgwick
7/18/2016	Restaurant	Unknown	Unknown Etiology	Johnson
7/21/2016	Child care center	Person-to-Person	Shiga toxin-producing Escherichia coli (STEC)	McPherson
7/21/2016	Restaurant	Food	Unknown Etiology	Johnson
7/27/2016	Hospital	Person-to-Person	Norovirus	Wilson
7/28/2016	Hospital	Unknown	Methicillin- or oxicillin- resistant Staphylococcus aureus	Shawnee

Entering Animal Bites into Epitrax as Rabies

by Chelsea Raybern, MPH

All positive and unsuitable rabies test results are **required** to be entered into EpiTrax and are done so by KDHE staff. Animal bites are **not** reportable to KDHE and therefore are not entered into EpiTrax by KDHE. However, if you are handling a situation in your county where rabies is suspected in an animal, and that animal has exposed another animal or person, it is highly encouraged that the suspect rabid animal be entered in EpiTrax by the local health department. This provides a central location for local health departments to document follow-up on animals that caused exposure but cannot be found or animals that are going through a 10-day observation period that become ill or die. Documentation in EpiTrax will allow you to quantify the total number of animals you followed up on for potential exposure to rabies, not just the ones that test positive or unsuitable. When you add a rabies case into EpiTrax: first name should equal “Rabid”, last name should equal species of the animal causing exposure (e.g.,“Dog” or “Skunk”), and the disease event should be assigned as “rabies, animal.” If you have any questions, please call the EpiHotline at 877-427-7317.

Vaccine-Preventable Disease Surveillance Indicators

by Mychal Davis, MPH

The completeness and quality of specific surveillance indicators for vaccine-preventable diseases (VPDs) reported to the Kansas Department of Health and Environment (KDHE) from July 1 to July 31, 2016 can be found in the table below. The bolded percentages represent the indicators that have less than 90% completion. The case counts presented in this report are preliminary numbers and are subject to change.

Keep up the good work! The meningococcal and the *Streptococcus pneumoniae* cases had all indicators above the 90% benchmark.

Still room for improvement... Varicella cases had eight indicators fall below the 90% benchmark, while the rubella case and the pertussis cases had six indicators fall below the benchmark. *Haemophilus influenzae* cases had four indicators fall below the benchmark.

Please continue to focus on completing these fields in EpiTrax for all VPDs as the goal is to reach 90% or higher completion on all indicators. For questions regarding this data, please contact Mychal Davis at (785) 368-8208 or mdavis@kdheks.gov.

VPD Indicators Reported from July 1 to July 31, 2016 in Kansas

Indicators	*Haemophilus influenzae,* invasive	Meningococcal disease	Pertussis	Rubella	*Streptococcus pneumoniae,* invasive	Varicella
Number of reported cases	4	1	10	1	6	12
% of cases with date of birth	100%	100%	100%	100%	100%	100%
% of cases with gender	100%	100%	100%	100%	100%	100%
% of cases with race	100%	100%	100%	100%	100%	**75%**
% of cases with ethnicity	100%	100%	90%	100%	100%	**83%**
% of cases with onset date‡	**50%**	100%	**70%**	**0%**	100%	**50%**
% of cases with hospitalized noted	**75%**	100%	**80%**	**0%**	100%	**75%**
% of cases with died noted	**75%**	100%	**80%**	**0%**	100%	**75%**
% of cases with vaccination status*	**50%**	100%	**70%**	**0%**	100%§	**67%**
% of cases with transmission setting¶	N/A**	N/A**	**70%**	**0%**	N/A**	**13%**
% of cases with completed symptom profiles	N/A**	N/A**	**40%**	**0%**	N/A**	**42%**

*Excludes cases with a State Case Status of “Out of State” or “Not a Case.”

‡Data are pulled from onset date field within the clinical tab, not the investigation tab.

*Unknown is considered a valid response if patient is older than 18 years of age.

**Indicator field is not included in supplemental disease form; *S. pneumoniae* and *H. influenzae* do not have clinical case definitions.

§Indicator considered complete if either polysaccharide or conjugate pneumococcal vaccine history is documented.

¶Unknown is considered a valid response for this indicator.

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. The first column is the EpiTrax field. The second column represents the number of cases with data in the field, and the third column, Percent Completed, represents the frequency of completion of the data field in EpiTrax. In order to align with preparedness targets for initiation of disease control measures and to set goals for case investigation completeness, targets for these measures are shown in the table below. We hope that these targets will help local health departments prioritize case investigations. County level indicators are now emailed to each local health department monthly. Percentages noted in red indicate a decrease in completeness compared to June 2016. Many of the surveillance indicators and performance measures have increased from June 2016. Occupation and onset date are indicators that are still not consistently completed.

Starting in January 2016 an additional performance measure has been added, timeliness of disease reporting. This performance measure is reflective of how timely health care providers and laboratories are reporting diseases according to KAR 28-1-2 (http://www.kdheks.gov/epi/download/KAR_28.1.2.pdf). The performance measure, timeliness of disease control measure, for cases of Salmonellosis and cases of Shiga-toxin *Escherichia coli* (STEC) are now calculated using the date for "Call Attempt 1" in the "Interview Information" tab in EpiTrax. For questions, contact Sheri Tubach at stubach@kdheks.gov.

July 2016	State's Total Number of Cases* = 308	
EpiTrax Indicators		
EpiTrax Field	**Number of Cases with Field Completed**	**Percent Completed**
Address City	300	97%
Address County	308	100%
Address Zip	298	97%
Date of Birth	304	99%
Died	268	87%
Ethnicity†	256	83%
Hospitalized	271	88%
Occupation	151	49%
Onset Date	233	76%
Pregnancy††	110	81%
Race †	269	87%
Sex †	304	99%
Date LHD Investigation Started	221	72%
Date LHD Investigation Completed	207	67%
Persons Interviewed	190	64%
Persons Lost to Follow-Up	25	8%
Persons Refused Interview	3	1%
Persons Not Interviewed	80	27%
Performance Measures		
	Number of Cases	**Percent of Cases**
Diseases were reported on time according to disease reporting regulations***	276	90%
Disease control measures began within the target for each disease^	167	54%
Case investigations were completed within the target for each disease^	125	41%

* Calculations do not include Hepatitis B - chronic, Hepatitis C – chronic, or 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 on the following page for disease control and case investigation targets.

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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; Meningococcemia; 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, postdiarrheal; Hepatitis B, acute; Legionellosis; Listeriosis; Salmonellosis, including typhoid fever; Shigellosis; Shiga-toxin *Escherichia coli* (STEC); Trichinosis; Vibriosis (not cholera)	3	5
Arboviral disease (including West Nile virus, Chikungunya, and Dengue); *Haemophilus influenzae*, invasive disease; *Streptococcus pneumoniae*, 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 spongioform encephalopathy (TSE) or prion disease	N/A	N/A

*__Disease Control:__ Calculated by using EpiTrax fields: **(Date LHD Investigation Started) – (Date Reported to Public Health)**

__Completed Case Investigation:__ Calculated by using EpiTrax fields: **(Date LHD Investigation Completed) – (Date Reported to Public Health)

***__Disease Reporting__: Calculated by using EpiTrax fields: (**Lab Test Date, Date Diagnosed – Presumptive, or Date Diagnosed whichever date is earlier**) – (**Date Reported to Public Health**) ≤ KDHE-required disease reporting timeframe

Monthly Disease Counts

The Monthly Disease Counts Report will no longer be part of *Epi Updates*. Please refer to the Cumulative Case Reports of Disease (http://www.kdheks.gov/epi/case_reports_by_county.htm) for current case count information.

A Big Welcome to Shandan Spencer

Shandan Spencer is the new Senior Administrative Assistant for our infectious disease surveillance team. He was born and raised in the Lawrence area and is a big Jayhawks fan. He will be pursuing a degree in the IT field. Shandan is expecting a son in December. He is excited to be at KDHE and looks forward to his future here. Please contact Shandan at epitraxadmin@kdheks.gov for EpiTrax password resets.

New Pertussis Reporting Form

by Chelsea Raybern, MPH

KDHE has developed a pertussis reporting form, and we are requesting that it be used instead of the notifiable disease form when reporting any pertussis cases. Please share this form with the healthcare providers in your area. The use of this form should ease the workload spent on conducting pertussis investigations at your local health department because it captures additional information specific to pertussis that 1) should reduce the amount of information you would need to collect during a single case investigation, therefore reducing the amount of time spent on a case investigation and 2) is necessary to correctly classify cases, ensuring cases will not be re-opened as often in EpiTrax. This form can be found at: http://www.kdheks.gov/epi/disease_reporting.html under "Pertussis (Whooping Cough) Report Form (.pdf)". If you have any questions, please call Chelsea Raybern at 785-296-0339.

Kansas Pertussis (Whooping Cough) Reporting Form

Kansas Department of Health and Environment

Today's Date: ____/____/____

Name of person reporting: _____ **Facility:** _____ **Phone:** _____

Patient's Name (Last, First, Middle): _____

Phone: _____ **Address:** _____

City: _____ **Zip:** _____ **County:** _____

Date of Birth: ____/____/____

Race: (Check all that apply)
- ☐ White
- ☐ Black
- ☐ Asian
- ☐ American Indian/Alaska Native
- ☐ Native Hawaiian/Other Pacific Islander

Ethnicity:
- ☐Hispanic or Latino
- ☐Not Hispanic or Latino

Sex:
- ☐Male
- ☐Female

Pregnant:
- ☐Yes
- ☐No

Hospitalized:
- ☐Yes
- ☐No

If yes, **date hospitalized:** ____/____/____

If yes, **hospital name:** _____

Died:
- ☐Yes
- ☐No

If yes, **date of death:** ____/____/____

Clinical Symptoms

Cough Onset Date: ____/____/____ Cough duration: ____**days**

Paroxysmal cough? ☐ Yes ☐ No ☐ Unknown Date paroxysms started? ____/____/____

Inspiratory whoop? ☐ Yes ☐ No ☐ Unknown Post-tussive emesis? ☐ Yes ☐ No ☐ Unknown

Apnea (infants)? ☐ Yes ☐ No ☐ Unknown Cyanosis? ☐ Yes ☐ No ☐ Unknown

Has the patient/guardian been notified of pertussis? ☐Yes ☐No

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Laboratory Information:

Specimen Collection Date: ____/____/____ Date Result Reported to Physician: ____/____/____

Name of test performed: _____ Results of Test: _____

Name of Laboratory: _____ Laboratory Results attached? ☐ Yes ☐ No

☐ **Specimen not collected or tested**

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Kansas Pertussis (Whooping Cough) Reporting Form

Attends/teaches school or daycare? ☐ Yes ☐ No ☐ Unknown

If yes, **facility name and grade**:_____

Has previously received pertussis vaccine? ☐ Yes ☐ No ☐ Unknown

If yes, please circle type and enter dates of all pertussis-containing vaccines:

DTP/DTaP/Tdap___/___/___ DTP/DTaP/Tdap ___/___/___ DTP/DTaP/Tdap ___/___/___

DTP/DTaP/Tdap___/___/___ DTP/DTaP/Tdap ___/___/___ DTP/DTaP/Tdap ___/___/___

If unimmunized, why?

☐Religious exemption ☐Medical contraindication ☐Previous disease
☐Parental refusal ☐Age <2 months ☐Unknown

Antibiotic treatment? ☐ Yes ☐ No

Date prescribed? ____/____/____

Antibiotic name: _____ Duration: _____

Does the case have contact with any high risk* persons? ☐ Yes ☐ No ☐ Unknown

High-risk close contacts *of a pertussis case are defined as:*

- ***Infants <1 year old***
- ***Pregnant women*** *in the 3rd trimester of pregnancy*
- *All persons with* ***pre-existing health conditions*** *that may be exacerbated by a pertussis infection (for example, but not limited to immunocompromised persons and patients with moderate to severe medically treated asthma).*
- ***Contacts who themselves have close contact*** *with either infants under 12 months, pregnant women or individuals with pre-existing health conditions at risk of severe illness or complications.*

All ***contacts in high risk settings*** *that include infants aged <12 months or women in the third trimester of pregnancy.*

Was chemoprophylaxis given to household contacts and **high-risk*** close contacts? ☐ Yes ☐ No

If yes, please list names/relationship: _____

_____

_____

Physician Name: _____ **Physician Phone:** _____

Mail or fax reports to your local health department and/or to:

KDHE Bureau of Epidemiology and Public Health Informatics, 1000 SW Jackson, Suite 075, Topeka, KS 66612-1274

Fax: 877-427-7318 (toll-free) Epidemiology Hotline: **877-427-7317**