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Kansas Department of Health and Environment

EPI UPDATES

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Bureau of Epidemiology & Public Health Informatics

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Hepatitis C Virus: Surveillance Update

by Ella Vajnar

Hepatitis C virus (HCV) infection is the most common chronic blood-borne infection in the United States affecting 3.2 million U.S. residents. Nationally, hepatitis C-related mortality has increased, especially among persons aged 44-64 years, and there has been a 151.5% increase in reported cases of acute HCV infection from 2010-2013. The new cases of HCV infection are predominately among persons less than 30 years of age who are white, live in non-urban areas (particularly in Eastern and Midwestern states), have a history of injection drug use, and previously used opioid agonists such as oxycodone. In Kansas, maintaining surveillance for newly acquired HCV cases is crucial if we are to understand the epidemiology of HCV. This surveillance of HCV has its challenges, including complete case ascertainment as many of those with newly acquired infections are commonly asymptomatic.

In 2015, the Council of State and Territorial Epidemiologists (CSTE) saw the need for a "straightforward, easy-to-apply case definition that is relevant from both a clinical and public health perspective." The definition proposed by CSTE was adopted by the Centers for Disease Control for the reporting of all new cases or new diagnoses of probable or confirmed, acute and chronic hepatitis C. All new cases of hepatitis C reported after January 1, 2016, to Kansas Department of Health and Environment, Bureau of Epidemiology and Public Health Informatics will be classified using the 2016 CDC case definition. The disease event "Hepatitis C, past or present" has been discontinued and replaced by "Hepatitis C, Chronic."

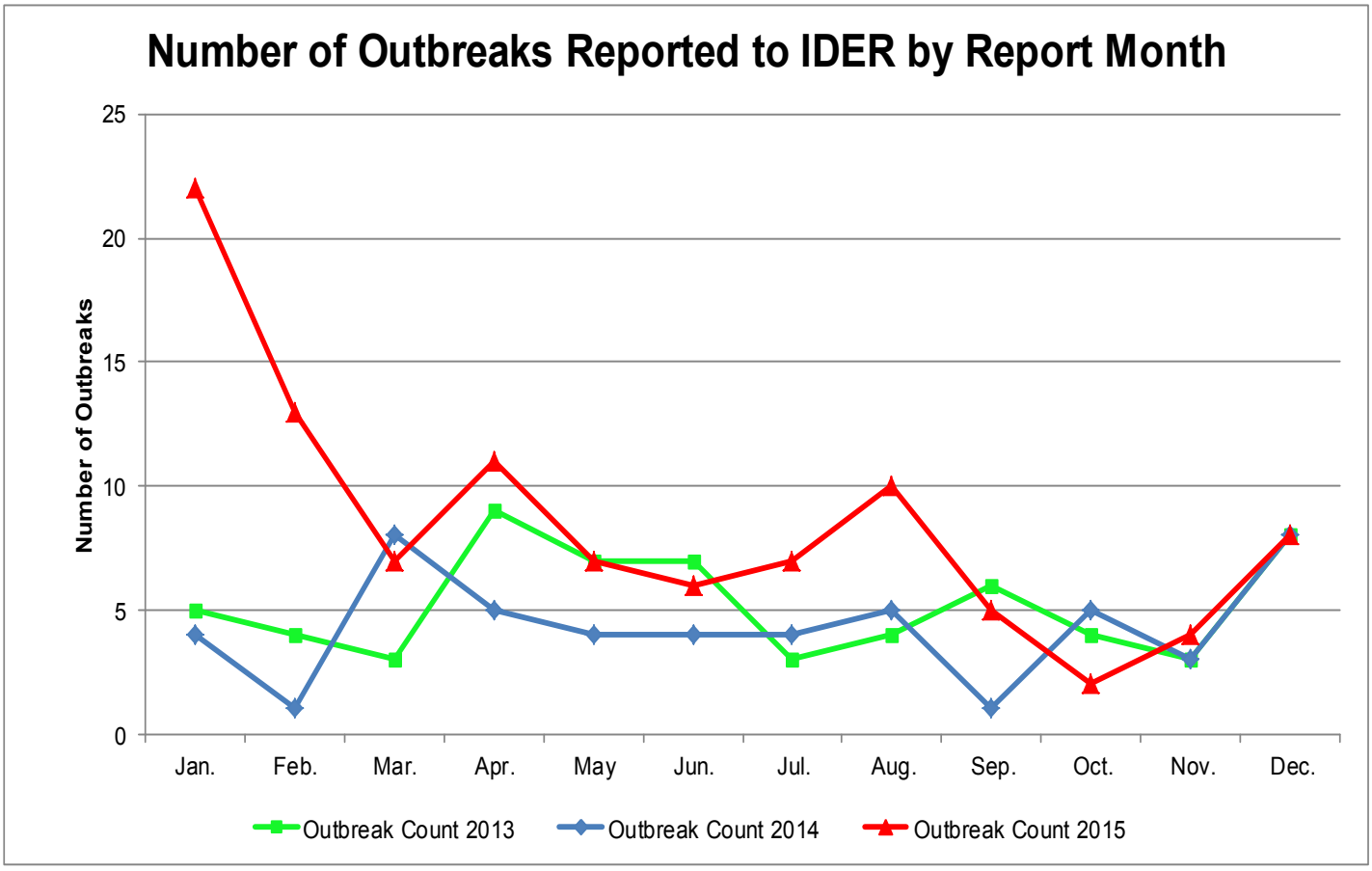
We encourage local health department investigators to review the new case definition as found in the updated Hepatitis C Disease Investigation Guideline, and to continue their efforts to identify patients with a recent initial exposure to hepatitis C that resulted in a newly diagnosed infection, with or without acute disease. Remember that your efforts to document recent exposures and sources of infection will help us better understand the burden of HCV in Kansas as compared to what has been reported nationally.

Additional resources for investigating Hepatitis C:

- Physician Fax for Hepatitis C Cases
- How to Conduct Investigations Associated with Correctional Facilities
- Correctional Facility Fax for Hepatitis C Cases

[1]Centers for Disease Control and Prevention. Surveillance for Viral Hepatitis – United States, 2013. Accessed January 8, 2016, at http://www.cdc.gov/hepatitis/statistics/2013surveillance/commentary.htm

[2]Council of State and Territorial Epidemiologists. Position Statement: Revision of the Case Definition of Hepatitis C for National Notification. Accessed January 8, 2016, at http://c.ymcdn.com/sites/www.cste.org/resource/resmgr/2015PS/2015PSFinal/15-ID-



Date Reported	Transmission	Disease	County
12/2/2015	Unknown	Shigellosis	Out of Country
12/4/2015	Person-to-Person	Pertussis	Rush
12/8/2015	Food	Unknown Etiology	Bourbon
12/24/2015	Person-to-Person	Norovirus	Johnson
12/28/2015	Food	Norovirus	Sedgwick
12/28/2015	Person-to-Person	Varicella (Chickenpox)	Douglas
12/28/2015	Food	Norovirus	Shawnee
12/30/2015	Person-to-Person	Unknown Etiology	Shawnee

Welcome to Katie Molnar and Amanda Prosser

Katie is a MPH student at Kansas State University, and Amanda is a MPH student at the University of Kansas at Wichita. Both Katie and Amanda are new public health consultants within the Infectious Disease Epidemiology and Response Section in the Bureau of Epidemiology and Public Health Informatics at the Kansas Department of Health and Environment (KDHE). KDHE was awarded funding from the Centers for Disease Control and Prevention through the Epidemiology and Laboratory Capacity for Infectious Diseases cooperative agreement for enhanced foodborne disease outbreak detection, investigation, and response. Katie and Amanda began conducting all *Salmonella* and Shiga toxin-producing *E. coli* (STEC) interviews for local health departments that opted in to participate in this program on January 4, 2016. Thanks to all the local health departments for their participation, and we hope that you find this program to be beneficial.

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 December 1 to December 31, 2015 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 date of birth and gender indicators were over 90% for all vaccine preventable diseases reported in the month of December. *Haemophilus influenzae* and pertussis cases had all but two indicators meet the 90% benchmark.

Still room for improvement... Eight of the ten indicators for varicella fell below the 90% benchmark. *Streptococcus pneumoniae* had five of the eight indicators fall below the 90% 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 December 1 to December 31, 2015 in Kansas

Indicators	*Haemophilus Influenzae,* invasive	Pertussis	*Streptococcus pneumoniae,* invasive	Varicella
Number of reported cases	12	16	26	39
% of cases with date of birth	100%	100%	100%	100%
% of cases with gender	100%	100%	96%	100%
% of cases with race	92%	100%	92%	**80%**
% of cases with ethnicity	**83%**	100%	**85%**	**67%**
% of cases with onset date‡	100%	94%	**73%**	**74%**
% of cases with hospitalized noted	100%	100%	**89%**	**80%**
% of cases with died noted	**83%**	100%	**89%**	**77%**
% of cases with vaccination status*	92%	100%	**89%§**	**72%**
% of cases with transmission setting¶	N/A**	**88%**	N/A**	**77%**
% of cases with completed symptom profiles	N/A**	**75%**	N/A**	**31%**

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

‡Data is 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. influenza* 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. The indicators in red text represent a decrease in the percent complete since last month. 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. For questions, contact Sheri Tubach at stubach@kdheks.gov.

December	State's Total Number of Cases* = 264

EpiTrax Indicators		
	Number of Cases with Field Completed	**Percent Completed**
Address City	256	97
Address County	264	100
Date of Birth	264	100
Died	234	89
Ethnicity†	220	83
Hospitalized	231	88
Occupation	145	55
Onset Date	210	80
Pregnancy††	118	83
Race †	232	88
Sex †	263	100
Date LHD Investigation Started	216	82
Date LHD Investigation Completed	204	77
Persons Interviewed	181	70
Persons Lost to Follow-Up	20	8
Persons Refused Interview	5	2
Persons Not Interviewed	53	20

Performance Measures		
	Number of Cases	**Percent of Cases**
Disease control measures began within the target for each disease^	178	67
Case investigations were completed within the target for each disease^	76	29

* 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)

Norovirus Outbreaks

by Daniel Neisis, MPH

The Kansas Department of Health and Environment (KDHE) has investigated an increased number of norovirus outbreaks in Kansas this winter. Since November, five laboratory-confirmed norovirus outbreaks have been identified around the state. The outbreaks were associated with restaurants and long-term care facilities.

Norovirus symptoms are like those of food poisoning, and it is often called the “stomach flu.” Symptoms of norovirus include nausea, vomiting, diarrhea, and some stomach cramping. Some people will suffer from a low-grade fever, chills, headache, muscle aches, and a general sense of tiredness.

Symptoms develop 12 to 48 hours after exposure to the virus. The illness often begins suddenly, and the infected person may feel very sick. The illness is usually brief, with symptoms lasting only one to two days and rarely causing long term problems after recovery.

The virus is easily spread. People infected with norovirus are contagious from the onset of symptoms until at least three days after recovery.

KDHE is here to assist local health departments upon identification of gastrointestinal illness outbreaks, including those in area schools or long-term care facilities. The KDHE laboratory can test stool specimens for norovirus and other enteric pathogens to confirm the cause of the outbreak.

To ensure rapid specimen collection and testing, please make sure your facility has at least three stool specimen collection kits on-hand, and that the kits have not expired. To order additional kits from the KDHE laboratory, please call (785) 296-1623, or complete the form located at http://www.kdheks.gov/labs/cust_serv/download/specimen_kit_request_form.pdf and fax it to (785) 296-1641.

Updates and Reminders

EpiTrax Form Updates

A few investigation forms have been updated in EpiTrax that we wanted to bring to your attention. Updates were made to the diseases listed below and included removal of current questions, addition of new questions, and reorganization of questions:

Shigellosis
Tularemia
Meningococcal Disease – COMING SOON!

2013 Annual Summary

The *2013 Summary of Reportable Infectious Disease in Kansas* has been posted on the KDHE website and is available at http://www.kdheks.gov/epi/download/disease_summary/dissum13.pdf . The purpose of this report is to provide useful information for health care providers, public health colleagues, and policy makers about infectious diseases in Kansas. The focus of this report is the assessment of disease trends including incidence, severity, populations affected, and risk fac-

Kansas Disease Investigation Guideline Updates

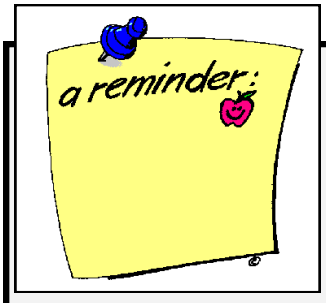
The Ehrlichiosis / Anaplasmosis and Spotted Fever Rickettsiosis Disease investigation Guidelines have been combined into a single Tickborne Disease Investigation Guideline. Updates have also occurred to the Lyme and Hepatitis C Disease Investigation Guidelines. All Guidelines can be accessed at www.kdheks.gov/epi/disease_investigation_guidelines.htm.

KDHE Disease Investigation Webpage

Kansas Training Modules

- KS-TRAIN
- Disease Investigator Training
- EpiTrax Introductory Training
- Pentaho 5 Basic Training

KDHE: Avian Influenza Outbreak and Responder Monitoring (1060799) and KDHE: Tickborne Disease Investigations (1060929) are now posted to KS-Train.
Review all current courses promoted by IDE&R through Disease Investigator Training link on the Disease Investigation webpage at http://www.kdheks.gov/epi/disease_investigation.htm.



2015 Case Review and Closure

All 2015 cases that were routed to your Local Health Department should be reviewed and closed (per normal protocol) by **Friday, February 19.**

Please note that TB Infection, TB Disease, STD/HIV, Lead, and Hepatitis B pregnancy event cases are not included in this expectation.

Please contact Bonnie Liscek at bliscek@kdheks.gov or (785) 296-6543, if you have questions.

EpiTrax Password Resets

If you are locked out of EpiTrax or need a password reset, please contact Bekah Gonzales at (785) 296-7732 or epitraxadmin@kdheks.gov.

	Reported Disease Counts - December 2015							
	Not Available	Confirmed	Not a Case	Probable	Suspect	Unknown	Grand Total	3 Year Avg. 2012-2014
Disease	Count	Count	Count	Count	Count	Count	Count	Count
Anaplasma phagocytophilum (f. HGE)	0	0	1	0	0	0	**1**	**0**
Campylobacteriosis	24	12	1	20	0	0	**57**	**38**
Carbapenem-resistant Enterobacteriaceae	0	0	0	0	6	1	**7**	**2**
Cryptosporidiosis	0	3	0	5	0	0	**8**	**4**
Dengue	0	0	1	1	0	0	**2**	**1**
Ebola Active Monitoring	5	0	0	0	0	0	**5**	**3**
Ehrlichiosis, *Ehrlichia chaffeensis* (f. HME)	0	0	0	2	0	0	**2**	**2**
Giardiasis	1	3	0	0	2	0	**6**	**7**
Haemophilus influenzae, invasive disease	4	8	1	0	0	0	**13**	**4**
Hepatitis A	1	0	2	0	0	0	**3**	**17**
Hepatitis B virus infection, chronic	6	4	218	14	0	0	**242**	**124**
Hepatitis B, acute	3	1	2	0	0	0	**6**	**5**
Hepatitis C virus, past or present	91	49	119	0	8	0	**267**	**185**
Hepatitis C, acute	0	1	0	0	0	0	**1**	**2**
Influenza	0	0	9	0	0	0	**9**	**13**
Legionellosis	4	0	0	0	0	0	**4**	**2**
Listeriosis	0	0	3	0	0	0	**3**	**1**
Lyme Disease (*Borrelia burgdorferi*)	6	0	4	0	0	0	**10**	**12**
Measles (rubeola)	0	0	3	0	0	0	**3**	**1**
Meningitis, Bacterial Other	1	0	0	0	0	0	**1**	**2**
Methicillin- or oxicillin- resistant *Staphylococcus aureus* coagulase-positive (MRSA a.k.a. ORSA)	0	0	0	0	0	2	**2**	**0**
Norovirus	1	4	0	1	0	0	**6**	**20**
Parainfluenza	0	2	0	0	0	0	**2**	**0**
Pertussis	11	2	7	3	0	0	**23**	**117**
Q Fever (*Coxiella burnetti*), Acute	0	0	2	0	0	0	**2**	**1**
Rabies, animal	4	4	0	0	2	0	**10**	**8**
Rhinovirus/Enterovirus	0	1	0	0	0	0	**1**	**0**
Rubella	0	0	37	0	0	0	**37**	**28**
Salmonellosis	7	36	1	0	2	0	**46**	**27**
Shiga toxin-producing *Escherichia coli* (STEC)	1	10	2	0	10	0	**23**	**9**
Shigellosis	7	20	1	2	0	0	**30**	**3**
Spotted Fever Rickettsiosis (RMSF)	4	0	2	1	0	0	**7**	**8**
Streptococcal disease, invasive, Group A	3	2	0	0	0	0	**5**	**5**
Streptococcus pneumoniae, invasive disease	4	21	0	0	0	0	**25**	**15**
Toxic-shock syndrome (staphylococcal)	1	0	0	0	0	0	**1**	**0**
Transmissible Spongioform Enceph (TSE / CJD)	1	0	0	0	0	0	**1**	**1**
Tularemia (*Francisella tularensis*)	1	1	0	1	0	0	**3**	**1**
Varicella (Chickenpox)	16	8	14	15	0	0	**53**	**42**
Vibriosis (non-cholera Vibrio species infections)	1	0	0	0	0	0	**1**	**0**
West Nile virus neuroinvasive disease	1	0	0	0	0	0	**1**	**1**
West Nile virus non-neuroinvasive disease	0	0	8	0	0	0	**8**	**4**
Yersiniosis	1	1	0	0	0	0	**2**	**1**
Grand Total	**210**	**193**	**438**	**65**	**30**	**3**	**939**	**716**