Bureau of Epidemiology & Public Health Informatics

Kansas Department of Health and Environment

EPI UPDATES

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Kansas Department of Health & Environment

Bureau of Epidemiology & Public Health Informatics

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Varicella Outbreak Surveillance in Schools

by Anne Straily

The Kansas Department of Health and Environment (KDHE) will be joining forces with the health departments in Douglas, Johnson, Sedgwick, Shawnee, and Wyandotte counties as part of a Centers for Disease Control and Prevention (CDC) funded cooperative agreement to enhance and strengthen varicella outbreak surveillance in Kansas schools. This enhanced surveillance project will initially include 446 public schools in the participating counties totaling a student population of more than 240,000 children. In later years, surveillance will be expanded to include private schools, schools in additional counties, Head Start programs, and other large daycare centers. A dedicated epidemiologist from the Bureau of Epidemiology and Public Health Informatics at KDHE will coordinate outbreak reporting and investigation among the participating county health departments. All varicella cases and suspect cases are reportable in Kansas, in accordance with K.A.R. 28-1-2 and K.S.A. 65-118, and school nurses, teachers, and administrators are all mandated reporters. This enhanced surveillance will help more accurately determine the true burden of disease in Kansas schools and the effectiveness of the two dose vaccine requirement.

Kansas Disease Investigation Guideline Updates

by Mary Ella Vajnar

The following disease investigation guidelines have been updated and posted to the KDHE website at http://www.kdheks.gov/epi/disease_investigation_guidelines.htm:

- Shigellosis (Revised 8/2014)
- Typhoid Fever (Revised 8/2014)
- Varicella (Revised 8/2014)
- Viral Hemorrhagic Fevers (Revised 8/2014)

Budget Period 3 (July 2014 – June 2015), as of 9/5/14

Disease Reporting and Disease Control Performance Measures

by Daniel Neises, MPH

Public Health Emergency Preparedness Cooperative Agreement
Capability #13: Public Health Surveillance and Epidemiological Investigation

Selected Diseases:

Disease	Case Classification Criteria
Hepatitis A	confirmed
Salmonellosis	confirmed, excluding typhoid fever
E. coli, STEC	confirmed
Shigellosis	confirmed
Tularemia	confirmed and probable
Varicella	confirmed and probable
Botulism	confirmed, excluding infant botulism
Measles	confirmed
Meningococcal disease	confirmed
Pertussis	confirmed

Disease Reporting: Proportion of selected disease reports received by a public health agency within the awardee-required timeframe. Calculated by using EpiTrax fields:

> **(Lab Test Date or Date Diagnosed – Presumptive) – (Date Reported to Public Health) ≤ KDHE-required disease reporting timeframe**

Disease Control: Proportion of reports of selected disease for which initial control measures were initiated within an appropriate timeframe. Calculated by using EpiTrax fields:

> **(Date LHD Investigation Started) – (Date Reported to Public Health) ≤ CDC-required timeframe**

Disease Reporting

Disease	KDHE Required Timeframe	Statewide Received	Statewide Received On Time	%	% Change from Previous Month
Hepatitis A	7 days	-	-	-	-
Salmonellosis	7 days	94	93	99	+1
E. coli, STEC	7 days	16	16	100	-
Shigellosis	7 days	10	10	100	-
Tularemia	7 days	1	1	100	-
Varicella	7 days	31	29	94	-6
Botulism	4 hours*	-	-	-	-
Measles	4 hours*	9	8	89	-
Meningococcal disease	4 hours*	-	-	-	-
Pertussis	4 hours*	25	23	92	+9

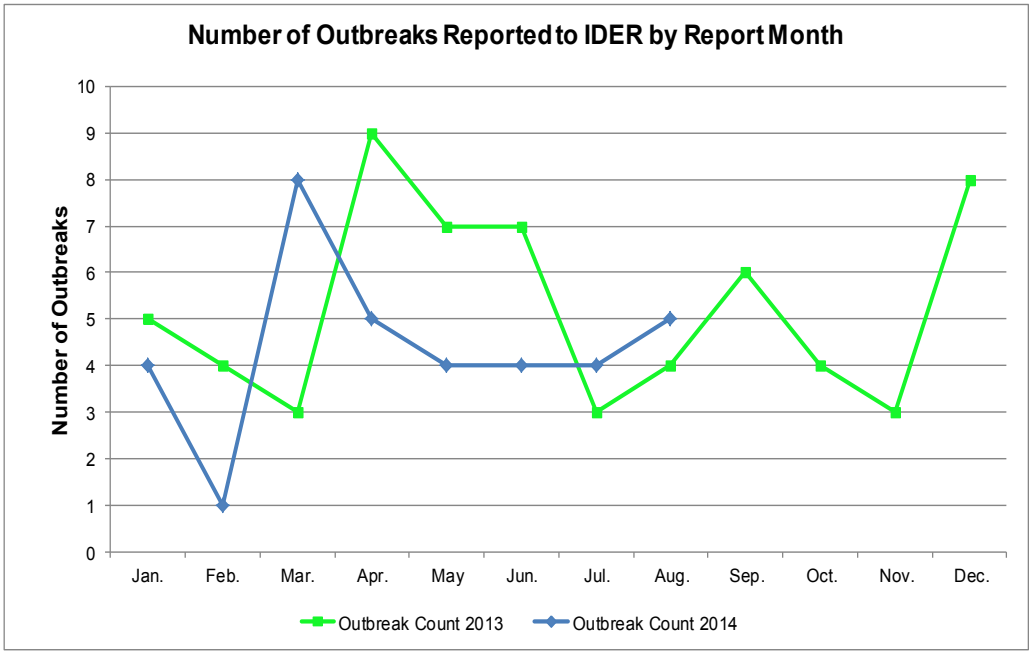
**Because EpiTrax does not capture time reported to public health, KDHE is allowed to "consider cases as immediately reported if the selected case event date and date of first report to a health department occur on the same date."*

Disease Control

Disease	CDC Required Timeframe	Statewide Received	Statewide Investigated On Time	%	% Change from Previous Month
Hepatitis A	7 days	-	-	-	-
Salmonellosis	3 days	94	78	83	-7
E. coli, STEC	3 days	16	16	100	-
Shigellosis	3 days*	10	7	70	-30
Tularemia	2 days	1	1	100	-
Varicella	1 day*	31	24	77	-23
Botulism	1 day	-	-	-	-
Measles	1 day	9	9	100	-
Meningococcal disease	1 day	-	-	-	-
Pertussis	1 day*	25	15	60	+27

**Collecting data for these diseases is optional. KDHE has defined these timeframes, not CDC.*

Monthly Outbreak Summaries



Date Reported	Facility Type	Transmission	Disease	County
8/1/2014	Restaurant	Indeterminate / Other / Unknown	Outbreak Case - Unknown Etiology	Republic
8/8/2014	Adult Care Facility	Person-to-Person	MRSA	Johnson
8/18/2014	Religious Facility	Food	Salmonellosis	Crawford
8/19/2014	Adult Care Facility	Person-to-Person	Rhinovirus	Johnson
8/25/2014	School or College	Person-to-Person	Rhinovirus/Enterovirus	Morton

	Reported Disease Counts - August 2014							
	Not Available	Confirmed	Not a Case	Probable	Suspect	Unknown	Grand Total	3 Year Avg. 2011-2013
Disease	**Count**	**Count**	**Count**	**Count**	**Count**	**Count**	**Count**	**Count**
Amebiasis (*Entamoeba histolytica*)	1	1	0	0	0	0	**2**	**1**
Anaplasma phagocytophilum (f. HGE)	0	0	1	0	0	0	**1**	**3**
Brucellosis	1	0	0	0	0	0	**1**	**0**
Campylobacteriosis	40	22	1	1	16	0	**80**	**86**
Carbapenem-resistant Enterobacteriaceae	0	0	0	0	0	11	**11**	**0**
Chikungunya Fever	0	1	0	1	1	0	**3**	**0**
Cryptosporidiosis	0	3	0	5	0	0	**8**	**53**
Cyclosporiasis	1	0	0	0	0	0	**1**	**1**
Dengue	0	0	1	0	0	0	**1**	**2**
Ehrlichiosis, *Ehrlichia chaffeensis* (f. HME)	6	1	3	1	0	0	**11**	**11**
Ehrlichiosis, *Ehrlichia ewingii*	0	1	0	0	0	0	**1**	**1**
Giardiasis	10	7	0	0	0	0	**17**	**23**
HUS - Hemolytic Uremic Syndrome postdiarrheal	1	0	0	0	0	0	**1**	**0**
Haemophilus influenzae, invasive disease (Including Hib)	1	2	1	0	0	0	**4**	**3**
Heartland Virus	1	0	0	0	0	0	**1**	**0**
Hepatitis B virus infection, chronic	10	0	70	16	0	0	**96**	**41**
Hepatitis B, acute	0	0	3	1	0	0	**4**	**4**
Hepatitis C virus, past or present	87	40	62	1	7	0	**197**	**219**
Legionellosis	4	0	0	0	0	0	**4**	**7**
Listeriosis	0	1	0	0	0	0	**1**	**1**
Lyme Disease (*Borrelia burgdorferi*)	9	1	11	2	2	0	**25**	**40**
Measles (rubeola)	9	0	3	0	4	0	**16**	**0**
Meningitis, Bacterial Other	4	0	0	0	1	0	**5**	**4**
Mumps	2	0	0	0	0	0	**2**	**2**
Norovirus	1	0	0	0	0	0	**1**	**8**
Pertussis	40	6	5	0	5	0	**56**	**109**
Q Fever (*Coxiella burnetti*), Acute	0	0	0	1	0	0	**1**	**1**
Rabies, animal	7	3	4	0	1	0	**15**	**13**
Rubella	3	0	73	0	0	0	**76**	**0**
Salmonellosis	6	47	0	0	0	0	**53**	**69**
Shiga toxin-producing *Escherichia coli* (STEC)	2	6	2	0	3	0	**13**	**17**
Shigellosis	0	6	0	0	0	0	**6**	**7**
Spotted Fever Rickettsiosis (RMSF)	23	0	13	7	1	0	**44**	**55**
St. Louis encephalitis virus neuroinvasive disease	0	0	1	0	0	0	**1**	**0**
Streptococcal disease, invasive, Group A	0	1	0	0	0	0	**1**	**3**
Streptococcus pneumoniae, invasive disease	2	1	0	0	0	0	**3**	**4**
Tularemia (*Francisella tularensis*)	4	0	0	1	0	0	**5**	**5**
Varicella (Chickenpox)	26	1	35	3	0	0	**65**	**36**
Vibriosis (non-cholera Vibrio species infections)	1	0	0	0	0	0	**1**	**0**
West Nile virus neuroinvasive disease	0	0	0	1	1	0	**2**	**3**
West Nile virus non-neuroinvasive disease	9	1	13	7	0	0	**30**	**49**
Grand Total	**311**	**152**	**302**	**48**	**42**	**11**	**866**	**885**

Vaccine-Preventable Disease Surveillance Indicators

By Chelsea Raybern, 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 August 1 to August 31, 2014, can be found in the table below. The percentages in bold 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 indicators date of birth, gender, hospitalization, and death were completed for at least 92% of all VPDs reported from August 1 to August 31, 2014. All but two indicators (transmission setting and completed investigations) were at least 93% complete for varicella cases and more than half of the indicators (date of birth, gender, race, ethnicity, hospitalization, and death) were at least 92% complete for pertussis cases. The median number of days for local health departments to accept *Haemophilus influenzae* and varicella cases was zero.

Still room for improvement…Percent of completed investigations was much lower than 90% for *Haemophilus influenzae*, pertussis, and varicella cases. Of the two VPDs (pertussis and varicella) that document transmission information, only 81% of pertussis cases and 75% of varicella cases had it documented. The median number of days for local health departments to accept pertussis and *Streptococcus pneumoniae* cases was two with ranges of 0 to 11 and 0 to 2 days, respectively. Even though the median number of days for local health departments to accept varicella cases was zero, the range was 0 to 6 days.

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 Chelsea Raybern at (785) 296-0339 or craybern@kdheks.gov .

VPD Indicators Reported from August 1 to August 31, 2014 in Kansas

Indicators	*Haemophilus influenzae*, invasive	Pertussis	*Streptococcus pneumoniae*, invasive	Varicella
Number of reported cases	3	48	2	28
% of cases with date of birth	100%	98%	100%	100%
% of cases with gender	100%	100%	100%	100%
% of cases with race	**67%**	92%	**50%**	96%
% of cases with ethnicity	100%	92%	**50%**	93%
% of cases with onset date‡	**67%**	**88%**	100%	96%
% of cases with hospitalized noted	100%	92%	100%	100%
% of cases with died noted	100%	92%	100%	100%
% of cases with vaccination status*	**67%**	**83%**	100%§	100%
% of cases with transmission setting¶	N/A**	**81%**	N/A**	**75%**
% of investigations completed by local health departments§§	**67%**	**63%**	100%	**75%**
Median # of days from report to case acceptance (range)¶¶	0 (0)	2 (0-11)	2 (0-2)	0 (0-6)

‡Data is pulled from onset date field within the clinical tab, not investigation tab.
*Unknown is considered a valid response if patient is older than 18 years.
§Indicator considered complete if either polysaccharide or conjugate pneumococcal vaccine history is documented.
¶Unknown is considered a valid response for this indicator.
**Indicator field is not included in supplemental disease form.
§§Status includes when local health department completes investigation, approves the case, or when the case is closed by state.
¶¶Time is from public health report date to when local health department accepts case.