EPI UPDATES

Kansas Department of Health and Environment

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Bureau of Epidemiology & Public Health Informatics

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KDHE Healthcare-Associated Infection Program Partners with the CDC's Get Smart about Antibiotics Week

by Robert Geist, MPH, CIC

Get Smart about Antibiotics Week, November 16-22, is an annual one-week observance to raise awareness of the threat of antibiotic resistance and the importance of appropriate antibiotic prescribing and use. On September 18, 2014, the White House announced an Executive Order stating that the Federal Government will work domestically and internationally to detect, prevent, and control illness and death related to antibiotic-resistant infections by implementing measures that reduce the emergence and spread of antibiotic-resistant bacteria and help ensure the continued availability of effective therapeutics for the treatment of bacterial infections.
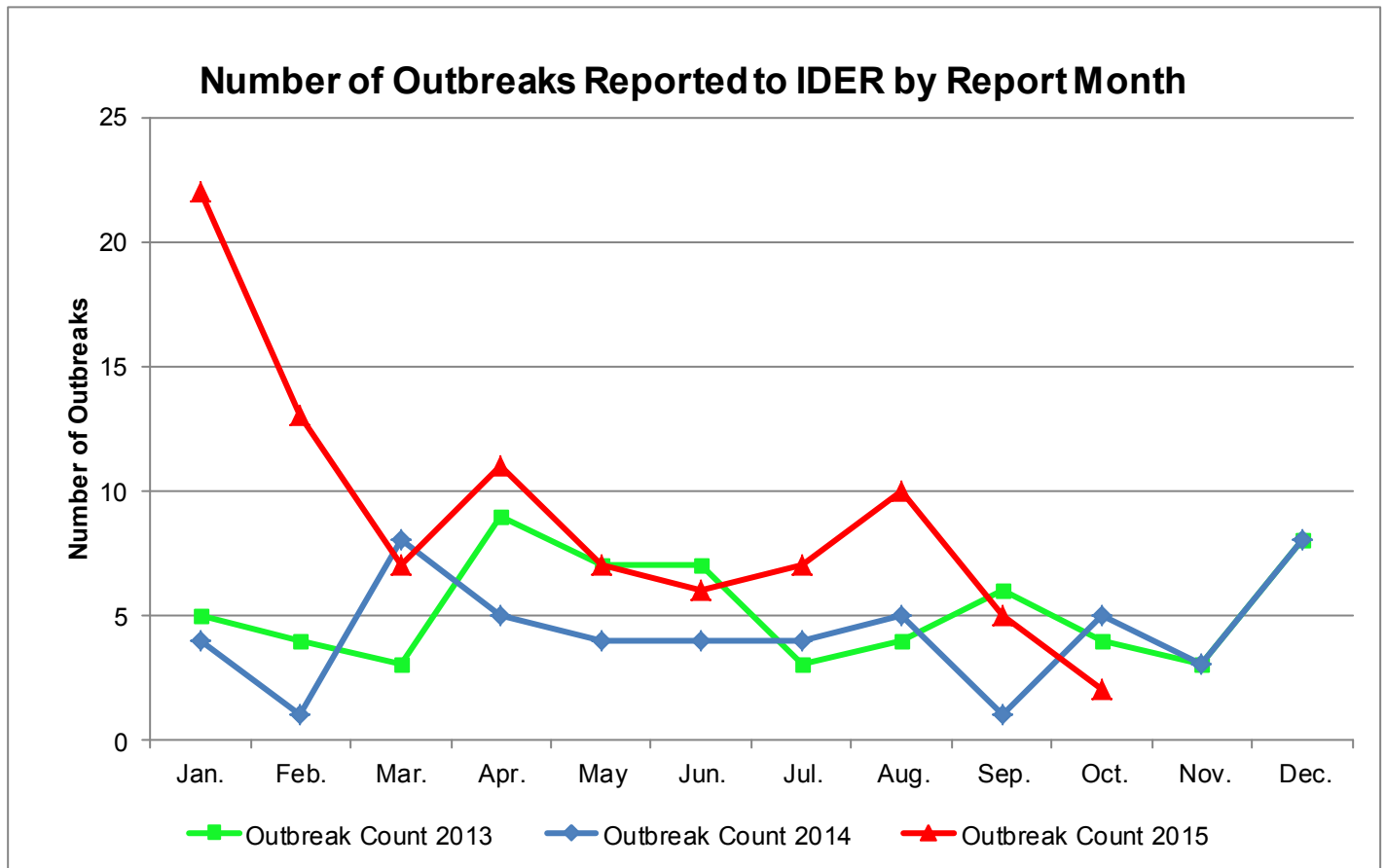
The use of antibiotics is the single most important factor leading to antibiotic resistance around the world. Antibiotics are among the most commonly prescribed drugs. However, up to 50% of all the antibiotics prescribed for people are not needed or are not optimally effective as prescribed. Antibiotics are also commonly used for promoting growth in food animals, one type of use that is not necessary.

Get Smart about Antibiotics Week is a key component of CDC's efforts to improve antibiotic stewardship in communities, in healthcare facilities, and on the farm in collaboration with state-based programs, nonprofit partners, and for-profit partners. The observance is an international collaboration, coinciding with the European, Australian, and Canadian Antibiotic Awareness Events. If you would like to learn more or would like to find resources that you can share, please visit: http://www.cdc.gov/getsmart/week/.

"Antibiotic resistance is a threat to our health. Every year, at least 2 million Americans become infected with bacteria that are resistant to antibiotics, and at least 23,000 die as a direct result of these infections. We can improve the way that antibiotics are used in every setting, both to improve patient outcomes now, and to protect the power of these drugs for the future."

Tom Frieden, MD, MPH - Director of the Centers for Disease Control and Prevention

Number of Outbreaks Reported to IDER by Report Month

Legend: Outbreak Count 2013 — Outbreak Count 2014 — Outbreak Count 2015

Date Reported	Facility Type	Transmission	Disease	County
10/8/2015	Pending	Indeterminate	Salmonellosis	Greeley
10/30/2015	Child Care Center	Person-to-Person	Shigellosis	Johnson
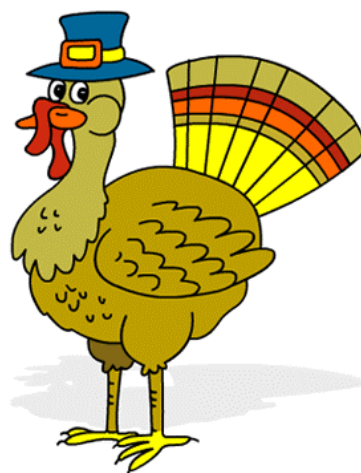
Vaccine-Preventable Disease Surveillance Indicators
by Mychal Davis, MPH

The completeness and quality of specific surveillance indicators for vaccine-preventable diseases (VPDs) reported to the Kansas Department of Health and Environment (KDHE) from October 1 to October 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! All indicators had 100% completion for the meningococcal disease case reported. Date of birth, gender, and race were over 90% for all vaccine preventable diseases reported in the month of October.

Still room for improvement... Four of the ten indicators for pertussis fell below the 90% benchmark. Varicella had seven of the ten indicators fall below the 90% benchmark. Five of the eight indicators for *Streptococcus pneumoniae* did not achieve 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 October 1 to October 31, 2015 in Kansas

Indicators	*Haemophilus influenzae,* invasive	Meningococcal disease	Pertussis	*Streptococcus pneumoniae,* invasive	Varicella
Number of reported cases	5	1	33	14	25
% of cases with date of birth	100%	100%	100%	100%	96%
% of cases with gender	100%	100%	100%	100%	100%
% of cases with race	100%	100%	97%	100%	96%
% of cases with ethnicity	100%	100%	97%	**86%**	**88%**
% of cases with onset date‡	**80%**	100%	**88%**	**57%**	**68%**
% of cases with hospitalized noted	**80%**	100%	94%	**86%**	84%
% of cases with died noted	**80%**	100%	91%	**79%**	80%
% of cases with vaccination status*	**80%**	100%	**85%**	**71%**§	76%
% of cases with transmission setting¶	N/A**	N/A**	**88%**	N/A**	**8%**
% of cases with completed symptom profiles	N/A**	N/A**	**79%**	N/A**	**48%**

*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 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; *S. pneumoniae* and *H. influenzae* do not have clinical case definitions.
§§ Status is calculated based on when local health department completes investigation.
¶¶Time is from public health report date to when local health department accepts case.

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.

October 2015	State's Total Number of Cases* = 274	
EpiTrax Indicators		
EpiTrax Field	**Number of Cases with Field Completed**	**Percent Completed**
Address City	264	96
Address County	274	100
Address Zip	261	95
Date of Birth	271	99
Died	233	85
Ethnicity†	206	75
Hospitalized	234	85
Occupation	112	41
Onset Date	193	70
Pregnancy††	83	64
Race †	221	81
Sex †	272	99
Date LHD Investigation Started	209	76
Date LHD Investigation Completed	199	73
Persons Interviewed	193	71
Persons Lost to Follow-Up	19	7
Persons Refused Interview	3	1
Persons Not Interviewed	56	21
Performance Measures		
	Number of Cases	**Percent of Cases**
Disease control measures began within the target for each disease^	162	59
Case investigations were completed within the target for each disease^	88	32

* Calculations do not include Hepatitis B - chronic, Hepatitis C – past or present, 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.

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 influenza, invasive disease; Streptococcus pneumoniae, invasive	3	7
Ehrlichiosis / Anaplasmosis; Lyme disease; Malaria; Spotted Fever Rickettsiosis	3	14
Hepatitis B, chronic; Hepatitis C, past or present; 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) – (Date Reported to Public Health)**
[**]**Completed Case Investigation:** Calculated by using EpiTrax fields: **(Date LHD Investigation Completed) – (Date Reported to Public Health)**

	Reported Disease Counts - October 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
Acute Flaccid Myelitis	0	1	0	0	0	0	1	0
Anaplasma phagocytophilum (f. HGE)	0	0	1	0	0	0	1	1
Brucellosis	1	0	0	0	0	0	1	1
Campylobacteriosis	26	16	0	12	0	0	54	57
Carbapenem-resistant Enterobacteriaceae	0	0	2	0	3	0	5	1
Cryptosporidiosis	0	10	0	11	2	0	23	10
Ebola Active Monitoring	4	0	0	0	0	0	4	1
Ehrlichiosis, *Ehrlichia chaffeensis* (f. HME)	2	1	1	0	0	0	4	6
Ehrlichiosis/Anaplasmosis, undetermined	0	0	1	0	0	0	1	0
Giardiasis	2	10	0	1	0	0	13	14
HUS - Hemolytic Uremic Syndrome postdiarrheal	1	0	0	0	0	0	1	0
Haemophilus influenzae, invasive disease	0	5	0	0	0	0	5	3
Hepatitis A	0	0	2	4	0	0	6	20
Hepatitis B virus infection, chronic	6	3	250	21	0	0	280	52
Hepatitis B, acute	0	2	3	2	0	0	7	5
Hepatitis C virus, past or present	105	57	91	0	5	0	258	188
Hepatitis C, acute	0	1	0	0	0	0	1	2
Hepatitis E, acute	1	0	0	0	0	0	1	0
Influenza	0	0	5	0	0	0	5	1
Legionellosis	2	2	0	0	0	0	4	3
Lyme Disease (*Borrelia burgdorferi*)	3	1	11	0	2	0	17	29
MERS-CoV	0	0	1	0	0	0	1	0
Meningitis, Bacterial Other	1	0	1	0	0	0	2	2
Meningococcal disease (*Neisseria meningitidis*)	0	1	2	0	0	0	3	1
Mumps	1	0	1	0	0	0	2	3
Pertussis	33	1	14	5	2	0	55	124
Rabies, animal	4	5	1	2	0	0	12	12
Rubella	0	0	37	0	0	0	37	2
Salmonellosis	6	35	0	0	2	0	43	41
Shiga toxin-producing *Escherichia coli* (STEC)	6	9	3	0	0	0	18	16
Shigellosis	2	11	1	0	0	0	14	7
Spotted Fever Rickettsiosis (RMSF)	18	0	10	5	0	0	33	23
Streptococcal disease, invasive, Group A	4	0	0	0	0	0	4	2
Streptococcus pneumoniae, invasive disease	0	10	0	0	0	0	10	13
Transmissible Spongiform Enceph (TSE / CJD)	0	0	1	0	0	0	1	1
Tularemia (*Francisella tularensis*)	2	0	0	0	0	0	2	2
Varicella (Chickenpox)	22	1	11	7	0	0	41	50
Vibriosis (non-cholera Vibrio species infections)	1	0	0	0	0	0	1	1
West Nile virus neuroinvasive disease	0	0	0	1	0	0	1	7
West Nile virus non-neuroinvasive disease	5	0	7	1	0	0	13	40
Grand Total	**258**	**182**	**457**	**72**	**16**	**0**	**985**	**741**