Performance Measures
by Virginia Barnes

As part of the Public Health Emergency Preparedness Cooperative Agreement, the Centers for Disease Control and Prevention (CDC) evaluates the Kansas Department of Health and Environment's (KDHE's) ability to detect and respond to cases of infectious disease. The Public Health Surveillance and Epidemiological Investigation Performance Measures assess how quickly diseases are reported to KDHE and how rapidly local health departments initiate disease control measures.

The **disease reporting** performance measure is calculated in EpiTrax by comparing either the "Date diagnosed—presumptive" field or "Lab test date" field (depending upon the disease that is being tracked) to the "Date first reported to public health" field. The two methods of calculation exist because diseases are required to be reported within different time frames per K.A.R. 28-1-2.

For example, suspect cases of meningococcal disease should be reported within four hours, before any bacterial culture results are known. In EpiTrax, the "Date diagnosed—presumptive" field should be the same as the "Date first reported to public health" field.

Using a different example, cases of Shiga toxin-producing *E. coli* should be reported within seven days. To measure reporting performance for this disease, the "Lab test date" field should be less than seven days earlier than the "Date first reported to public health" field.

The **disease control** performance measure is assessed by comparing the EpiTrax "Date LHD investigation started" field located on the "Administrative" tab to the "Date first reported to public health" field. Again, different diseases are required to be investigated within different timeframes. Investigations for urgent diseases such as measles, botulism, and meningococcal disease must be started within 24 hours of being reported. Investigations of tularemia should start within two days, investigations of Shiga toxin-producing *E. coli* should start within three days, and investigations of hepatitis A should start within one week.

It is important to note that the "Date LHD investigation started" field does not automatically populate in EpiTrax, so the investigator is responsible for completing this information in each case. If the field is left blank, the measure will be calculated as if the investigation was not conducted within the appropriate timeframe. Additionally, the field is meant to capture the date of the first substantive activity by public health staff to prevent or control the spread of disease.

Calling a healthcare provider to discuss a case patient should not be considered the initiation of a control measure. A documented attempt to complete any of the below control measures qualifies as the start of an investigation, even if contact cannot be made with the case. Examples of control measures include:

- Identification of source of infection
- Identification of potentially exposed individuals
- Tracing of contacts
- Education of contacts
- Immunization or prophylaxis administered or recommended for susceptible individuals
- Isolation of cases
- Exclusion of cases from child care or food handling

Disease	Month reported to EpiTrax - August 2012					Grand Total	Average 2009—2011
	State Case Status						
	Confirmed	Probable	Suspect	Not a Case	Not Yet Classified		
	Count	Count	Count	Count	Count	Count	Count
Amebiasis (*Entamoeba histolytica*)	1	0	0	0	1	2	1
Anaplasma phagocytophilum (f. HGE)	0	1	1	1	3	6	2
Babesiosis	0	0	0	0	1	1	NA
Brucellosis	0	0	0	0	1	1	1
Campylobacteriosis	16	0	18	0	39	73	71
Cryptosporidiosis	6	1	0	1	10	18	57*
Denque	0	0	0	1	2	3	0
Ehrlichiosis, *Ehrlichia chaffeensis* (f. HME)	0	3	1	3	4	11	8
Ehrlichiosis, *Ehrlichia ewingii*	1	0	0	0	0	1	0
Giardiasis	3	1	3	1	12	20	28
Haemophilus influenzae, invasive disease (Including Hib)	4	0	0	0	0	4	3
Hepatitis A	0	2	2	24	27	55	36
Hepatitis B Pregnancy Event	0	0	0	0	2	2	NA
Hepatitis B Virus Infection, Chronic	0	17	0	0	12	29	40
Hepatitis B, Acute	0	2	0	1	1	4	4
Hepatitis C virus, past or present	137	1	7	98	53	296*	181
Hepatitis C, Acute	0	0	0	0	2	2	1
Hepatitis E, Acute	0	0	1	0	0	1	0
Legionellosis	0	0	0	0	6	6	2
Listeriosis	0	0	0	0	1	1	1
Lyme Disease (*Borrelia burgdorferi*)	0	0	2	9	23	34	26
Malaria (*Plasmodium spp.*)	1	0	0	0	0	1	3
Measles (Rubeola)	0	0	0	1	0	1	1
Meningitis, Bacterial Other	0	0	0	1	1	2	2
Meningococcal disease (*Neisseria meningitidis*)	1	0	0	0	0	1	1
Mumps	0	0	1	3	1	5	2
Parapertussis	0	0	2	0	1	3	NA
Pertussis	29	31	36	39	114	249*	45
Q Fever (*Coxiella burnetti*) Acute	0	0	0	0	1	1	1
Rabies, animal	3	0	4	5	3	15	7
Salmonellosis	71	1	0	0	3	75	67
Shiga toxin-producing *Escherichia coli* (STEC)	8	0	1	0	1	10	12
Shigellosis	9	0	0	0	1	10	16

Month reported to EpiTrax - August 2012 Cont.						
State Case Status					Grand Total	Average 2009—2011
Confirmed	Probable	Suspect	Not a Case	Not Yet Classified		
Count	Count	Count	Count	Count	Count	Count
Disease						
Spotted Fever Rickettsiosis (RMSF)	0	9	6	11	51	**77**	**25**
St. Louis encephalitis virus non-neuroinvasive disease	0	0	1	0	0	**1**	**0**
Streptococcal disease, invasive, Group A	2	0	0	0	5	**7**	**2**
Streptococcus pneumoniae, invasive disease	5	0	0	0	1	**6**	**3**
Tularemia (*Francisella tularensis*)	1	2	0	0	2	**5**	**2**
Varicella (Chickenpox)	0	15	0	6	6	**27**	**34**
West Nile virus neuroinvasive disease	0	5	1	0	0	**6**	**1**
West Nile Virus non-neuroinvasive disease	0	11	21	23	37	**92**	**16**
Grand Total	**299**	**102**	**108**	**228**	**428**	**1,164**	

* Increase in case count is due to outbreak(s).

Epidemic Intelligence Service Assignment
by Suparna Bagchi, MSc, MSPH, DrPH

Suparna Bagchi is a first-year Epidemic Intelligence Service (EIS) Officer for the Scientific Education and Professional Development Program Office, Office of Surveillance, Epidemiology and Laboratory Services, Centers for Disease Control and Prevention. Dr. Bagchi was assigned to the Bureau of Epidemiology and Public Health Informatics, Kansas Department of Health and Environment this past August.

During her EIS assignment, Dr. Bagchi will be involved in state health department response to outbreaks, will evaluate the hospital healthcare-associated infections voluntary reporting system, and assess the employer absence and infection control policies in Kansas. She looks forward to assessing the program and measuring cost-effectiveness of partner services for syphilis.

Dr. Bagchi received her undergraduate degree (1999) and Master of Science (2001) from the University of Pune; Master of Science in Public Health from the University of Alabama, Birmingham (2003); and Doctorate of Public Health from the University of Alabama, Birmingham (2009). Her doctoral work centered on discordance in disordered eating behaviors among adolescent sibling pairs. Before joining EIS, Dr. Bagchi worked as the Behavioral Surveillance Team Lead with the Georgia Department of Public Health. She has an interest in behavioral epidemiology, mental health, and chronic disease and has spent time managing the activities of the Behavioral Risk Factor Surveillance System and Youth Risk Behavioral Surveillance System in Georgia.
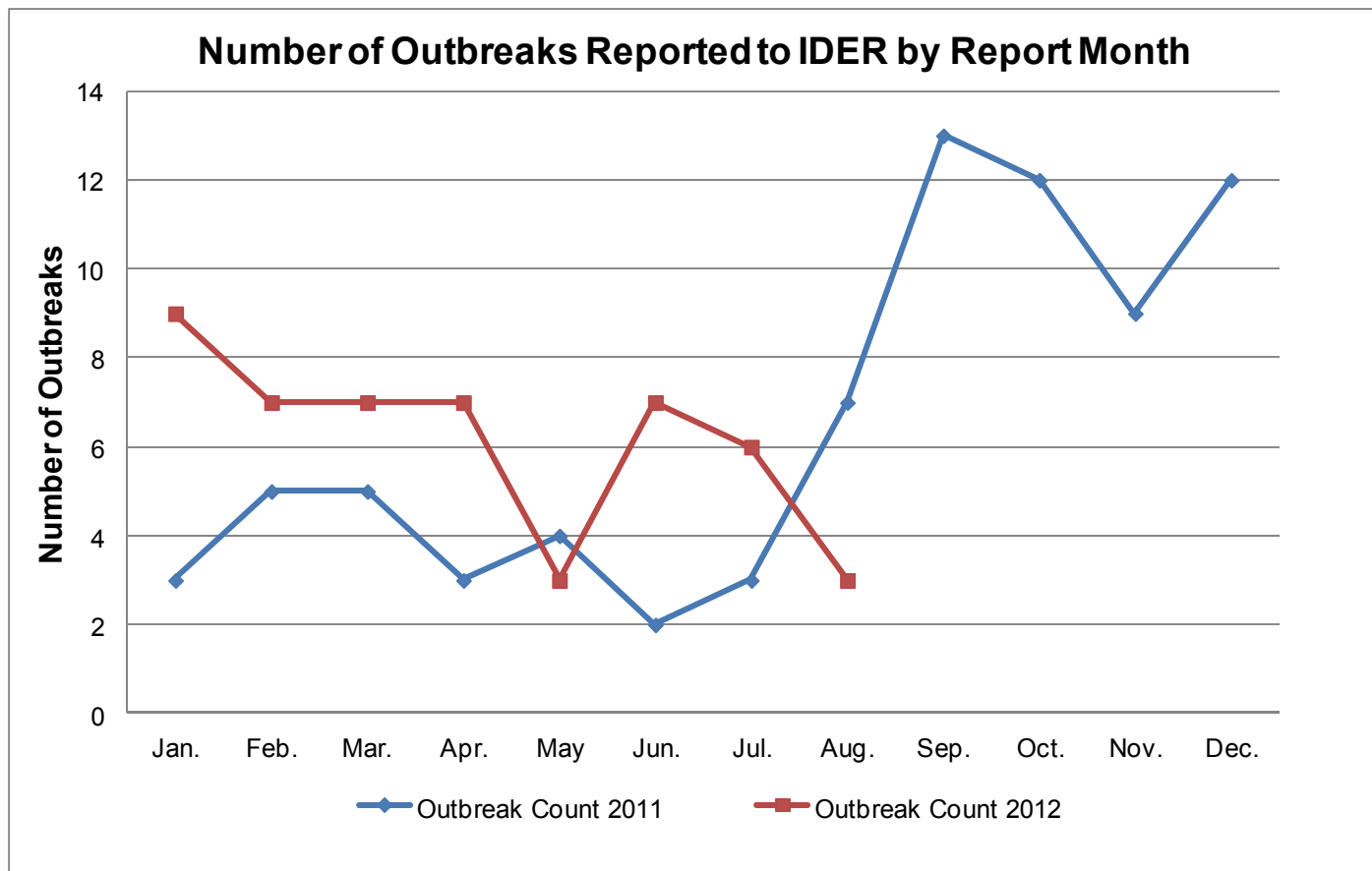
KDHE collects data from all local health departments (LHDs) regarding these measurements. Be mindful of how these EpiTrax fields affect performance measure evaluations. Be sure they are complete and accurate for each disease record.

Any questions regarding these performance measures can be directed to Daniel Neises (dneises@kdheks.gov) or Virginia Barnes (vbarnes@kdheks.gov).

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MONTHLY OUTBREAK SUMMARIES

Number of Outbreaks Reported to IDER by Report Month

Facility Type	Organism	Transmission	County	Outbreak Status	Reported Date
School	Norovirus	Person-to-Person	Johnson	Closed	8/15/2012
Restaurant	Unknown-GI	Indeterminate/Other/Unknown	Graham	Active	8/21/2012
Restaurant	Unknown-GI	Indeterminate/Other/Unknown	Shawnee	Closed	8/29/2012

Rosehill Outbreak Summary

On August 15, the Kansas Department of Health and Environment (KDHE) was notified by Johnson County Health Department about a potential norovirus outbreak at Rosehill Elementary School in Lenexa, Kan. The initial report indicated 28 students ill after an individual vomited at school on the morning of August 13. The primary symptoms reported were vomiting and diarrhea. One stool specimen submitted to KDHE Laboratories was positive by Polymerase Chain Reaction (PCR) for norovirus. The school was closed on August 16 and 17 for cleaning. Students and teachers continued to become ill until August 22. A total of 142 individuals out of 629 (22.6 %) became ill during this outbreak.