What's Inside

Kansas Department of Health & Environment

Bureau of Epidemiology & Public Health Informatics

Farah Ahmed, MPH, PhD
Environmental Health Officer & State Epidemiologist

Lou Saadi, Ph.D.
Director, BEPHI & State Registrar

Sheri Tubach, MPH, MS
Director, IDER

Shannon Sandall
Director, Surveillance Systems & *Epi Updates* Editor

Daniel Neises, MPH
Senior Epidemiologist

Chelsea Raybern, MPH
Senior Epidemiologist

Ingrid Garrison, MPH, DVM, DACVPM
State Public Health Veterinarian

Curtis State Office Building
1000 SW Jackson St.
Topeka, KS 66612
Email: epihotline@kdheks.gov
Epi Hotline: 877-427-7317
Fax: 1-877-427-7318

Bureau of Epidemiology & Public Health Informatics

Measles Update and Testing Guidance

by Sheri Tubach, MPH, MS

Measles is a respiratory viral disease that causes a rash and fever. It is highly contagious. Measles can spread to others through coughing and sneezing. The measles virus can live up to two hours in an airspace where the infected person coughed or sneezed. If other people breathe the contaminated air or touch contaminated infected surfaces then touch their eyes, noses or mouths, they can become infected. Measles is so contagious that if one person has it, 90% of the people close to that person who are not immune will also become infected.

A typical case of measles begins with mild to moderate fever, cough, runny nose, and red eyes. Two or three days after symptoms begin, tiny white spots may appear inside the mouth. Three to five days after the start of symptoms, a red or reddish-brown rash appears. In a person who is not immune to measles, the rash usually begins on the face at the hairline, and spreads downward to their chest and back. However, the rash may appear differently in people who are vaccinated against measles. When the rash appears, a person's fever may spike to more than 104 degrees Fahrenheit. After a few days, the fever usually subsides and the rash fades in the order it appeared. Infected people can spread measles to others from four days before through four days after the rash appears.

From January 1 to June 13, there have been 1,044 cases confirmed in 28 states. This is the greatest number of cases reported in the U.S. since 1992 and since measles was declared eliminated in 2000. In Kansas there have been no cases reported in 2019, but given the large number of cases in the U.S., the Infectious Disease Epidemiology and Response Program at the Kansas Department of Health and Environment (KDHE) has developed a measles testing reference guide to assist in making testing recommendations and approval for testing at the Kansas Health and Environmental Laboratories (KHEL). To be eligible for testing at KHEL, the following criteria needs to be met:

UNVACCINATED PATIENTS must have the following to be approved for testing:

- Fever
- Cough, coryza, or conjunctivitis
- Rash that:
    - Was preceded by a prodrome
    - Started on the head or face
    - Disseminated unless report is on day one of rash
- Travel outside of Kansas (International/U.S.) **OR**
- Visitors who had symptoms or were diagnosed with measles **OR**
- Attends or works in a daycare

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IMMUNE OR UNKNOWN PATIENTS must have the following to be approved for testing:

- Fever
- Rash starting on/limited to the head or face
- Travel outside of Kansas (International/U.S.) **OR**
- Visitors who had symptoms or were diagnosed with measles **OR**
- Attends or works in a daycare

KHEL will test specimens for measles via polymerase chain reaction (PCR), which is considered the gold standard for measles testing. To our knowledge, measles PCR testing is not available at any commercial laboratories in Kansas. It is important that specimens are collected and shipped properly to ensure valid test results. A nasopharyngeal (NP) swab for measles PCR is the preferred respiratory specimen. Although a throat swab is also acceptable. Use a Dacron™ or rayon swab and place the swab in 2–3 ml of viral transport medium. The specimen needs to be stored in the refrigerator and shipped cold. Testing of the specimen needs to be conducted within three days of specimen collection.

For additional information on measles or testing at KHEL, call the KDHE epidemiology hotline at 877-427-7317.

EpiTrax—New and Improved—Trainings

Administrators attending the Regional Public Health Conferences received a sneak peek at the new and improved EpiTrax. Our current version of EpiTrax is becoming dated and needs to be upgraded. We hope you will find that the new version is an improvement.

Please join us for demonstrations of the new EpiTrax via Webinar on the following dates and times:

June 24 — 10 a.m. CST and 2 p.m. CST
June 26 — 10 a.m. CST
July 9 — 10 a.m. CST
July 11 — 1 p.m. CST

Register now!

We have scheduled in-person trainings which will take place the weeks of July 15 and July 22. Please go to Kansas Train and register for the location most convenient for you.

https://www.train.org/ks/welcome
Course Number: 1085438

All users are invited, but attendance is not a requirement. Please feel free to send one representative from your health department who can return and train the rest of your staff. Space is limited in most of the training venues.

If your chosen location does not have a computer lab available, please bring a laptop with you to the training. We would like for you to have the opportunity to use the new system.

Disease Prevention for Fairs and Festivals—Updated Toolkit

The Kansas Department of Health and Environment has updated the “Disease Prevention for Fairs and Festivals” toolkit. It is designed for fair and festival managers and public health officials to understand the considerations that should be made when organizing and operating a fair or festival. It focuses on preventing zoonotic diseases, those diseases transmitted between animals and people, and is based on the National Association of State Public Health Veterinarians Compendium of Measures to Prevent Disease Associated with Animals in Public Settings. There is an additional section on food safety considerations. The toolkit can be found on the KDHE website: http://www.kdheks.gov/epi/download/Disease_Prevention_Toolkit.pdf. We encourage you to review the toolkit and reach out to your County Fair Board or other fair or festival operators. Fun fact: the majority of the photos used in the toolkit are of Ella Vajnar’s children (Ella is a Medical Investigator), Dr. Garrison’s children (State Public Health Veterinarian) or from the Kansas State Fair!

UPDATE 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. I am now calculating the performance measures of interview attempt and interview completion using either the report date to the LHD or the date the event was created in EpiTrax. The disease specific targets for interview initiation and interview completion can be found below. I hope that these performance measures will be more helpful in prioritizing case investigations. For questions, contact Sheri Tubach at sheri.tubach@ks.gov

May 2019	State's Total Number of Cases* = 275	
EpiTrax Indicators		
EpiTrax Field	Number of Cases with Field Completed	Percent Completed
Address City	273	99
Address County	275	100
Address Zip	272	99
Date of Birth	274	100
Died	245	89
Ethnicity†	228	83
Hospitalized	242	88
Occupation	158	58
Onset Date	214	85
Pregnancy††	112	81
Race †	242	88
Sex †	275	100
Persons Interviewed	171	62
Persons Lost to Follow-Up	17	6
Persons Refused Interview	2	1
Persons Not Interviewed	85	31
	Number of Cases	Percent of Cases
Interview was attempted within the target for each disease^[52]	124	55
Case investigations were completed within the target for each disease^	103	46

*Calculations do not include Hepatitis B - chronic, Hepatitis C – Chronic or acute, or Animal 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 below for interview attempt and completed case interview targets

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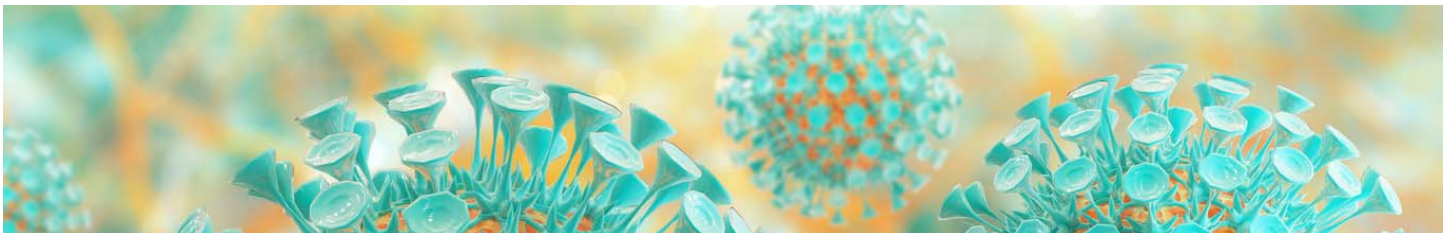


Disease Targets

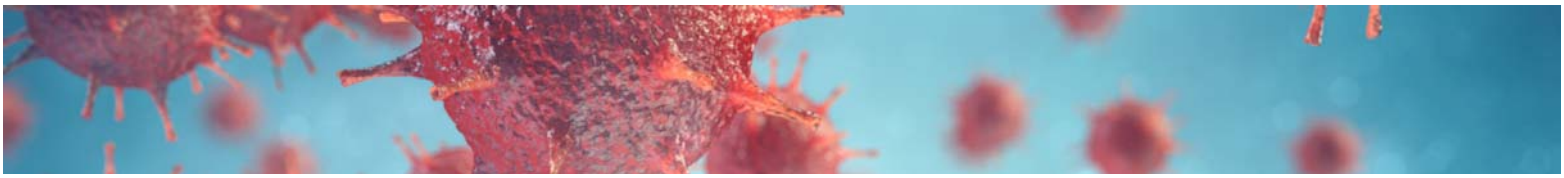
Diseases	Disease Control (Days)*	Completed Case Investigation (Days)**
Anthrax, Botulism, Brucellosis, Cholera, Diphtheria, Hantavirus Pulmonary Syndrome, Hepatitis A, Influenza deaths in children <18 years of age, Measles, Meningitis, bacterial, Meningococcemia, Mumps, Plague, Poliomyelitis, Q Fever, 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, Chikungunyan, and Dengue), Haemophilus influenzae, invasive disease, Hepatitis B, Chronic, Streptococcus pneumoniae, invasive, Streptococcal disease, invasive, Group A, Toxic shock syndrome, streptococcal and staphylococcal, Transmissible spongioform encephalopathy (TSE) or prion disease	3	7
Ehrlichiosis / Anaplasmosis, Hepatitis B virus infection, chronic, Lyme disease, Malaria, Spotted Fever Rickettsiosis, Leprosy (Hansen disease), Psittacosis	3	14

Monthly Disease Counts

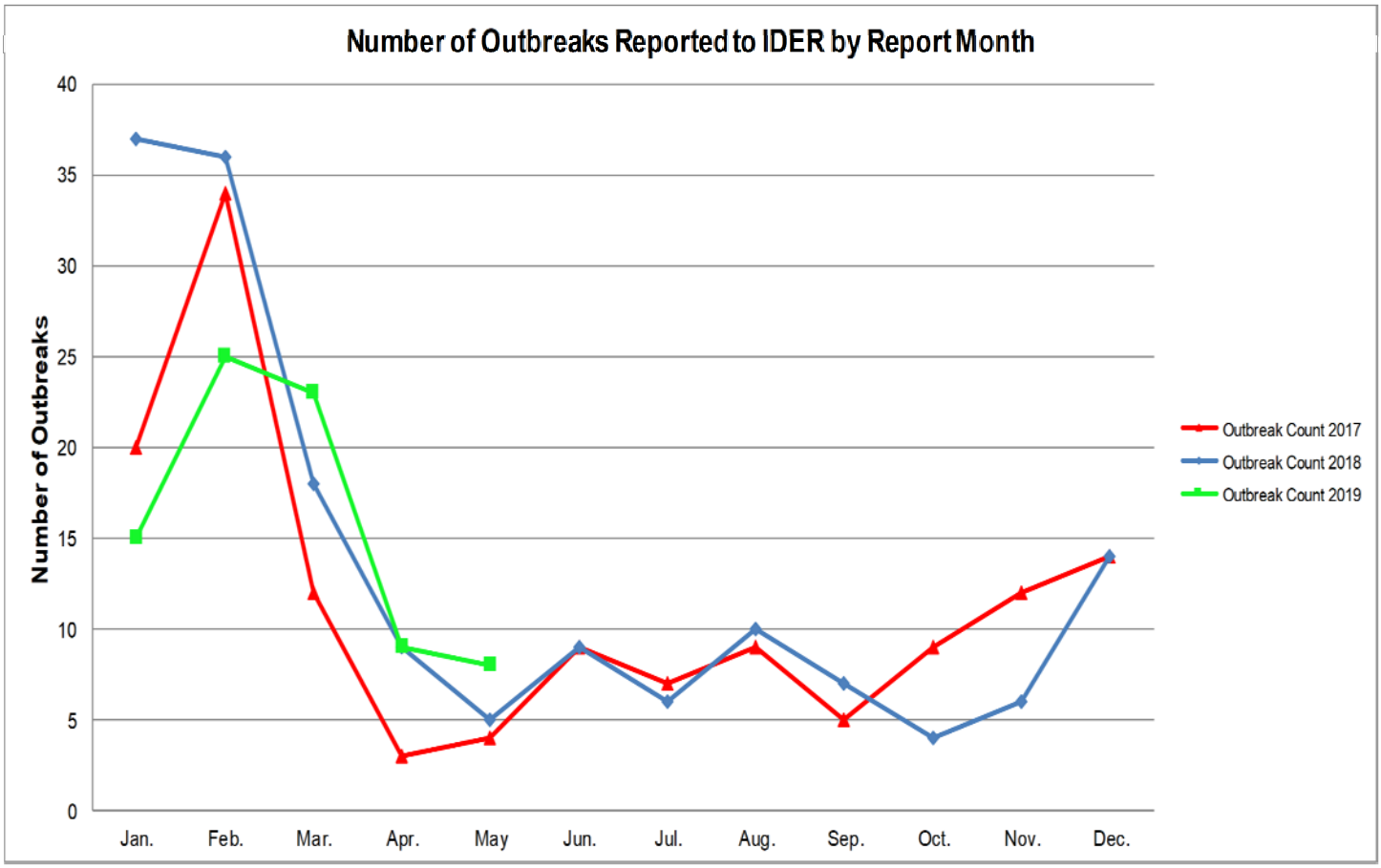
Please refer to the Cumulative Case Reports of Diseases (http://www.kdheks.gov/epi case_reports_by_county.htm) for current case count information.

***Disease Control:** Calculated by using EpiTrax Fields: **(Date LHD Investigation Started) OR (Call Attempt 1 date for Salmonellosis and STEC) - (Date Reported to Public Health) OR (Date Reported to KDHE)**

****Completed Case Investigation:** Calculated by using EpiTrax fields: **(Date LHD Investigation Completed) - (Date Reported to Public Heath) OR (Date Reported to KDHE)**



Outbreaks Report



Date Reported	Facility Type	Transmission/Exposure	Disease/Condition	County
5/2/2019	Child care center	Person-to-person	Adenovirus F	Thomas
5/2/2019	Restaurant	Food	Unknown Etiology	Wyandotte
5/6/2019	Other	Animal Contact	Salmonellosis	Multistate
5/6/2019	Other	Indeterminate/Other/Unknown	Salmonellosis	Multistate
5/6/2019	Other	Animal Contact	Salmonellosis	Multistate
5/7/2019	Restaurant	Food	Unknown Etiology	Wyandotte
5/16/2019	Restaurant	Food	Unknown Etiology	Sedgwick
5/20/2019	Restaurant	Food	Unknown Etiology	Riley