



EPI UPDATES

May
2018

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Legionellosis (Legionnaires' Disease) Investigations

by Daniel Neises, MPH

Legionellosis (Legionnaires' Disease) is a serious respiratory illness that most often affects those over age 50, those with chronic lung diseases, the immunosuppressed, and current or former smokers.

About 30 cases of legionellosis have been reported in Kansas each of the past three years. Nationally, cases are on the rise. The CDC states that "reported cases of Legionnaires' disease have grown by nearly four and a half times since 2000. It is unclear whether this increase represents artifact (due to increased awareness and testing), increased susceptibility of the population, increased *Legionella* in the environment, or some combination of factors."

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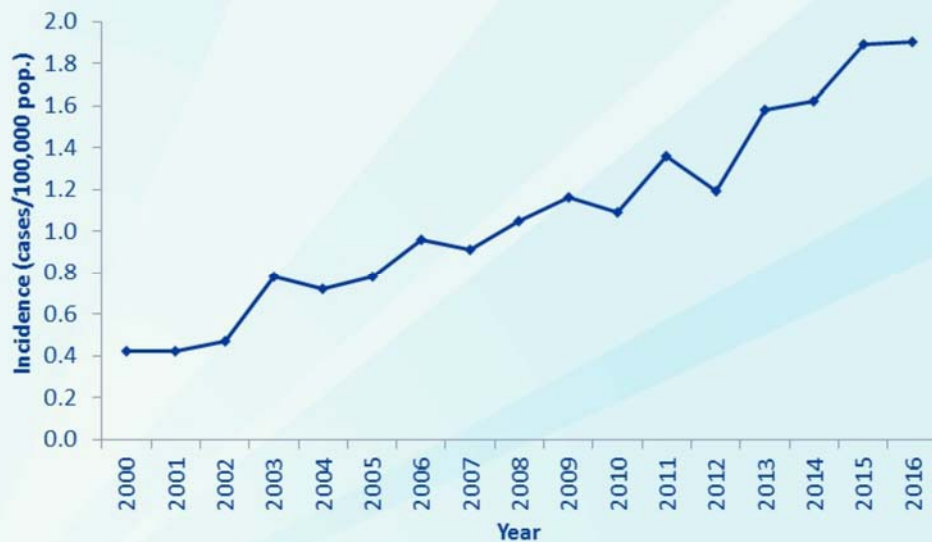
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**Legionnaires' Disease Is On The Rise
2000—2016***



*National Notifiable Diseases Surveillance System

The primary mode of legionella transmission is through breathing in droplets of contaminated water, such as steam from a shower or whirlpool hot tub. Improperly maintained cooling towers used for air conditioning in large buildings can spread droplets over a large area, and have been linked to many large outbreaks. Outbreaks have also been tied to decorative water features, especially indoor fountains or water walls. Less commonly, people can get Legionnaires' disease by aspiration of drinking water. People at increased risk of aspiration include those with swallowing difficulties. In general, people do not spread Legionnaires' disease to other people; however, this may be possible in rare cases.

Case investigations focus on where the patient could have been

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exposed to *Legionella* bacteria. The EpiTrax investigation form includes questions about specific exposures during the ten days prior to illness onset. Please complete the investigation form completely, providing details about the location and type of exposure. For example, if a case reports "Yes" to a whirlpool, spa, or hot tub, please determine if the case was in the whirlpool, or sitting near it. Ask how long the person was in or near the whirlpool. If the exposure was at a hotel, determine if the whirlpool was in the case's room, or if it was next to the swimming pool. Extensive details are important in the event an on-site environmental assessment is conducted.

KDHE reviews the data collected from case interviews, and takes action if indicated. If a single case may have been exposed at a hotel, gym, or other Kansas facility, a letter is sent to notify the facility and to give recommendations on management of their water systems. If two or more cases are associated to a Kansas facility, KDHE will conduct an on-site environmental assessment, and collect samples for *Legionella* testing. If the exposure may have occurred out-of-state, KDHE notifies CDC, who in turn notifies the state of exposure.

A wealth of information and resources regarding legionellosis can be found on the CDC's website: <https://www.cdc.gov/legionella/index.html>.

If you have questions about legionellosis investigations, or want to report an exposure of concern, please contact Daniel Neises via KDHE's epidemiology hotline (877-427-7317).

May Public Health Observances

Hepatitis Awareness Month

May is Hepatitis Awareness Month, and the CDC has some wonderful resources on their website to help you raise awareness of viral hepatitis and encourage at risk populations to get tested.

What can you do?

1. [Promote the CDC Hepatitis Risk Assessment.](#)
2. [Order viral hepatitis posters and fact sheets at no cost.](#)
3. [Share the ABCs of Viral Hepatitis brochure.](#)
4. Contact the KDHE epidemiology staff if you have any questions - kdhe.EpiHotline@ks.gov or (877)427-7317.



Healthy and Safe Swimming Week: May 21-27, 2018

by Lindsey Martin Webb, MPH

The week before Memorial Day, when swimming pools traditionally open for the summer season, is **Healthy and Safe Swimming Week**. This is the ideal time to reach out to public pool operators, residential pool owners, the media, and the general public to promote healthy and safe swimming in your community.

Recreational water illnesses (RWIs) are caused by germs spread by swallowing, breathing in mists or aerosols of, or having contact with contaminated water in swimming pools, hot tubs, water parks, water play areas, interactive fountains, lakes, rivers, or oceans. RWIs can also be caused by chemicals in the water or chemicals that evaporate from the water and cause indoor air quality problems. Diarrhea is the most common RWI, and it is often caused by germs like Crypto (short for *Cryptosporidium*), *Giardia*, norovirus, *Shigella*, and *E. coli* O157:H7. Other common RWIs include skin, ear, respiratory, eye, neurologic, and wound infections. Children, pregnant women, and people with weakened immune systems are most at risk for RWIs. Even when properly treated with chemicals, the water can still have germs. Swimmers should follow these **4 easy steps** to help keep germs out of the water and stay healthy:

1. Stay out of the water if you have diarrhea
2. Shower before you get in the water
3. Don't pee or poop in the water
4. Don't swallow the water



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. For 2018, there have been some notable changes. I have now included four additional surveillance indicators; food handler, group living, health care worker, and daycare attendee or worker. These four fields are on the Epidemiological Tab in EpiTrax.

Additionally, I am no longer utilizing the fields 'Date LHD investigation started' or 'Date LHD investigation completed' to calculate the performance measures of disease control measures implemented or case investigation completed. Instead, I am calculating percent of cases that have the first interview attempted by the disease target and the percent of cases that have the interview completed by the disease target. Disease targets can be found in the table 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

April 2018		State's Total Number of Cases* = 242	
EpiTrax Indicators			
EpiTrax Field	Number of Cases with Field Completed	Percent Completed	
Address City	237	98	
Address County	242	100	
Address Zip	235	97	
Date of Birth	241	100	
Daycare attendee or worker†	94	39	
Died	205	85	
Ethnicity†	195	81	
Food handler†	84	35	
Group living†	151	62	
Healthcare worker†	128	53	
Hospitalized	197	81	
Occupation	139	57	
Onset Date	178	74	
Pregnancy††	104	74	
Race †	212	88	
Sex †	240	99	
Persons Interviewed	133	55	
Persons Lost to Follow-Up	8	3	
Persons Refused Interview	0	0	
Persons Not Interviewed	101	42	
		Number of Cases	Percent of Cases
Interview was attempted within the target for each disease [^]	88		44
Case investigations were completed within the target for each disease [^]	61		31

*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

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; Meningococccemia; 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, post diarrheal; Hepatitis B, acute; Legionellosis; Listeriosis; Salmonellosis, including typhoid fever; Shigellosis; Shiga-toxin <i>Escherichia coli</i> (STEC); Trichinosis; Vibriosis (not cholera)	3	5
Arboviral disease (including West Nile virus, Chikungunya, and Dengue); <i>Haemophilus influenzae</i> , invasive disease; <i>Streptococcus pneumoniae</i> , 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 spongiform encephalopathy (TSE) or prion disease	N/A	N/A

***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 Health) OR (Date Reported to KDHE)

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.

MMWR | SWIM HEALTHY, STAY HEALTHY

ABOUT 500 OUTBREAKS IN 15 YEARS

MORE THAN 27,000 PEOPLE SICK AND 8 DEATHS LINKED TO POOLS, HOT TUBS, AND WATER PLAYGROUNDS

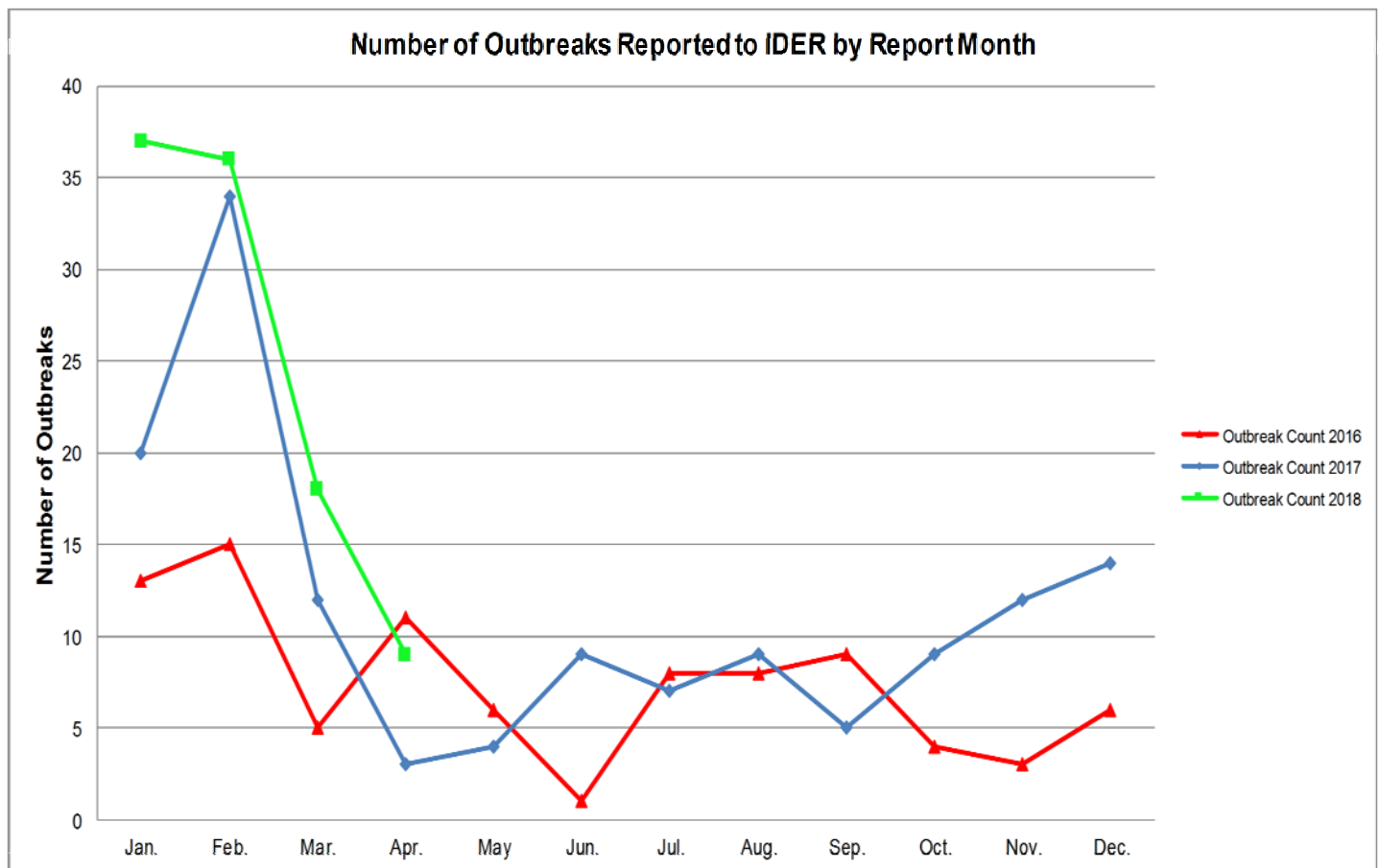
MOST OUTBREAKS HAPPEN IN HOTEL POOLS AND HOT TUBS

IN THE SUMMER

STAY HEALTHY IN THE WATER

- DON'T SWIM WITH DIARRHEA**
- CHECK THE INSPECTION SCORE 99**
- DON'T SWALLOW THE WATER**

Outbreaks Report



Date Reported	Facility Type	Transmission/Exposure	Disease/Condition	County
4/3/2018	Adult care facility	Person-to-person	Influenza	McPherson
4/3/2018	Multistate	Indeterminate/Other/Unknown	Salmonellosis	Multiple Counties
4/9/2018	School or college	Person-to-person	Influenza	Marion
4/12/2018	Travel	Indeterminate/Other/Unknown	Salmonellosis	Multiple Counties
4/12/2018	Adult care facility	Person-to-person	Unknown Etiology	Shawnee
4/23/2018	Adult care facility	Person-to-person	Influenza	Sedgwick
4/25/2018	School or college	Indeterminate/Other/Unknown	Unknown Etiology	Johnson
4/26/2018	Hotel or motel	Water	Legionellosis	Geary
4/27/2018	Restaurant	Food	Unknown Etiology	Johnson

The Disease Investigation Guidelines have been revised to agree with the recent regulations updates to the reporting of and isolation and quarantine for infectious or contagious diseases and other health conditions ([K.A.R. 28-1-1 through 28-1-18](#)).

You can access the Disease Investigation Guidelines at: http://www.kdheks.gov/epi/disease_investigation_guidelines.htm