



EPI UPDATES

February
2017

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Increased Influenza Activity in Kansas

by Amie Worthington

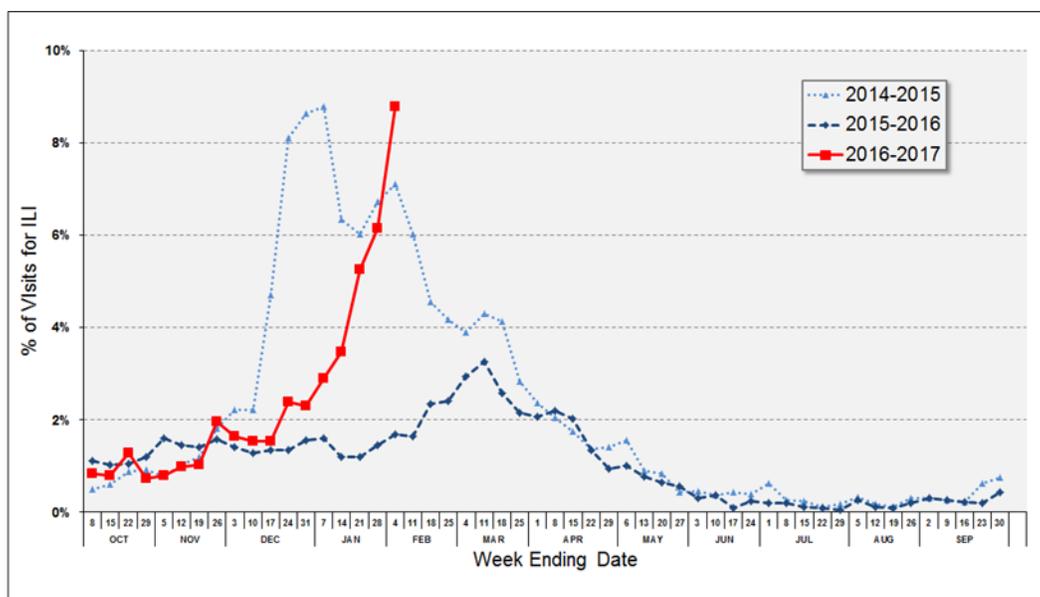
Influenza-like illness (ILI) activity has sharply increased in Kansas. Influenza is not a nationally notifiable disease, nor is it a notifiable disease in Kansas. Kansas utilizes sentinel sites to track influenza-like illness (ILI). The US Outpatient Influenza-like Illness Surveillance Network (ILINet) is a collaboration between the Centers for Disease Control and Prevention (CDC) and state, local, and territorial health departments. Influenza-like illness is defined by the CDC as fever ($\geq 100^{\circ}\text{F}$) with cough and/or sore throat, in the absence of a known cause other than influenza.

Thirty-five ILINet sites in Kansas report the number of patients seen who meet the ILI definition weekly compared to the total number of patients seen for any reason. The rate of ILI has risen steadily from January 2017 through February 2017. ILINet sites reported 8.8% of visits during the week ending February 4th were due to ILI. This is the highest percentage of ILI this season to date. ILINet sites are also asked to submit up to two specimens per week to the Kansas Health and Environmental Laboratories (KHEL) for PCR testing. These specimens help monitor what types of influenza are circulating in Kansas. As of February 4th, KHEL has reported 77 positive influenza specimens (70 A/H3, two A/H1, one A (not subtyped), and four influenza B). Additionally, 15 influenza outbreaks were reported to KDHE for the 2016-2017 season.

KDHE has received reports of vaccinated individuals testing positive for influenza this season. The influenza A/H3 specimens that are submitted to CDC for antigenic characterization are matching the A/H3 vaccine component well. On February 16, [CDC published its first vaccine effectiveness study for the 16-17 flu season](#), which states:

“Interim influenza vaccine effectiveness estimates for the 2016–17 season indicate that vaccination reduced the risk for influenza-associated medical visits by approximately half (48%). With vaccine effectiveness of 48%, some vaccinated persons will become infected with influenza. Clinicians should maintain a high index of suspicion for influenza infection among persons with acute respiratory illness while influenza activity is ongoing, especially among older adults.”

Percentage of Visits for Influenza-like Illness (ILI) Reported by ILINet Sites, Kansas, October 2016-September 2017 and the Previous Two Surveillance Periods



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Flumps: Influenza-Associated Parotitis

by Amie Worthington

Cases of influenza-associated parotitis have been identified in Kansas during the 2016-2017 season. Acute parotitis is defined as recent swelling of one or both of the salivary glands. Acute viral parotitis is not a common symptom of influenza virus infection and is much more commonly seen following infection with the mumps virus.

Parotitis following influenza virus infection appears to occur in people of all ages but mostly in school-aged children. While still rare, influenza-associated parotitis appears to occur more often after infection with influenza A (H3) viruses. A total of 27 cases were tested for both mumps and respiratory viruses at the Kansas Health and Environmental Laboratories (KHEL) since December 2016. A variety of respiratory viruses have been found in mumps-negative cases (Table 1).

Table 1: Respiratory Viruses Identified in Mumps-Negative Cases, 2016-2017, (n=11)

| | |
|---|---|
| Adenovirus | 1 |
| Coronavirus | 2 |
| Rhinovirus/Enterovirus | 1 |
| Influenza A/H3 | 3 |
| Respiratory Syncytial Virus | 1 |
| Parainfluenza | 1 |
| Co-Infection: Mumps and Influenza A/H3 | 1 |
| Co-Infection: Mumps and Rhinovirus/Enterovirus | 1 |

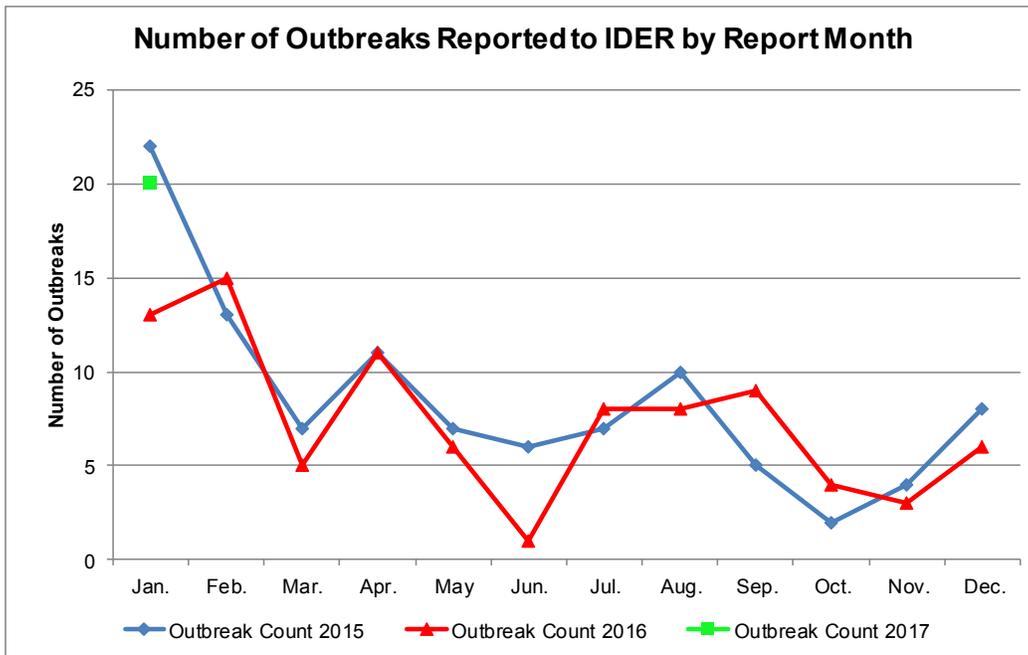
Since mumps cases have recently been identified in Kansas, a patient presenting with acute parotitis and is suspected of having mumps should be tested for mumps virus infection. A buccal swab and nasopharyngeal swab should be collected at the same visit. If mumps results are negative, the nasopharyngeal swab will be tested for alternative pathogens including influenza. Mumps and influenza testing can be facilitated by KDHE and the KHEL. Contact the epidemiology hotline at 877-427-7317 within four hours of identifying a suspect mumps case.

Influenza & Parotitis: Question & Answers for Health Care Providers. (2016, October 20). Retrieved February 10, 2017, from <https://www.cdc.gov/flu/about/season/questions-answers-parotitis.htm>



New Member of the Surveillance Team

Yancy Abernathy is the new Senior Administrative Assistant in the Surveillance Section. She moved here from Georgia with her three children and has a background in psychology working in Social Services and Mental Health as an advocate to those experiencing trauma and severe life stressors. Her passion is helping clients find healthy perceptions of themselves and strengthen their relationships. Her hobbies include playing guitar, working on antique cars, and running a suicide prevention and awareness support group. Please join us in welcoming her to the Surveillance team.



| Date Reported | Facility Type | Transmission | Disease | County |
|---------------|------------------------------|---------------------------------|------------------|-------------|
| 1/3/2017 | Adult care facility | Person-to-Person | Norovirus | Atchison |
| 1/9/2017 | Restaurant - Sit-down dining | Food | Norovirus | Shawnee |
| 1/16/2017 | Hospital outpatient | Person-to-Person | Unknown Etiology | Johnson |
| 1/19/2017 | Adult care facility | Person-to-Person | Influenza | Harvey |
| 1/19/2017 | Adult care facility | Person-to-Person | Influenza | Leavenworth |
| 1/19/2017 | School or college | Person-to-Person | Influenza | Osage |
| 1/19/2017 | Adult care facility | Person-to-Person | Unknown Etiology | Sedgwick |
| 1/23/2017 | Adult care facility | Person-to-Person | Influenza | Cherokee |
| 1/23/2017 | Restaurant - Sit-down dining | Indeterminate / Other / Unknown | Unknown Etiology | Shawnee |
| 1/25/2017 | School or college | Person-to-Person | Influenza | Harvey |
| 1/25/2017 | School or college | Person-to-Person | Norovirus | Johnson |
| 1/25/2017 | Adult care facility | Person-to-Person | Influenza | Johnson |
| 1/26/2017 | Child care center | Person-to-Person | Influenza | Saline |
| 1/26/2017 | Child care center | Person-to-Person | Shigellosis | Sedgwick |
| 1/26/2017 | Adult care facility | Person-to-Person | Norovirus | Shawnee |
| 1/30/2017 | Hospital | Person-to-Person | Influenza | Anderson |
| 1/30/2017 | School or college | Person-to-Person | Influenza | Johnson |
| 1/30/2017 | School or college | Person-to-Person | Influenza | Johnson |
| 1/30/2017 | School or college | Person-to-Person | Influenza | Johnson |
| 1/31/2017 | School or college | Person-to-Person | Influenza | Shawnee |

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 January 1 to January 31, 2017 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! The indicators for date of birth and gender were above the 90% benchmark of all VPDs reported from January 1 to January 31, 2017.

Still room for improvement...Varicella cases had seven indicators fall below the 90% benchmark. *Streptococcus pneumoniae* cases had six indicators, *Haemophilus influenzae* cases had three indicators, and pertussis cases had two indicators fall below the benchmark. Indicators that did not meet the 90% completion benchmark are bolded in the chart below.

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 Mychal.Davis@ks.gov.

VPD Indicators Reported from January 1 to January 31, 2017 in Kansas

| Indicators | <i>Haemophilus influenzae</i> , invasive | Mumps | Pertussis | <i>Streptococcus pneumoniae</i> , invasive | Varicella |
|---|--|-------|------------|--|------------|
| Number of reported cases | 12 | 2 | 38 | 9 | 25 |
| % of cases with date of birth | 100% | 100% | 100% | 100% | 100% |
| % of cases with gender | 100% | 100% | 100% | 100% | 100% |
| % of cases with race | 100% | 100% | 97% | 89% | 84% |
| % of cases with ethnicity | 100% | 100% | 97% | 78% | 84% |
| % of cases with onset date [‡] | 75% | 100% | 90% | 56% | 80% |
| % of cases with hospitalized noted | 92% | 100% | 92% | 56% | 84% |
| % of cases with died noted | 83% | 100% | 95% | 67% | 84% |
| % of cases with vaccination status* | 67% | 100% | 90% | 44% | 96% |
| % of cases with transmission setting [¶] | N/A** | 100% | 76% | N/A** | 88% |
| % of cases with completed symptom profiles | N/A** | 100% | 68% | 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 field is not included in supplemental disease form; *S. pneumoniae* and *H. influenzae* do not have clinical case definitions.

§Indicator considered complete if either polysaccharide or conjugate pneumococcal vaccine history is documented.

¶Unknown is considered a valid response for this indicator.

Monthly Disease Counts

The Monthly Disease Counts Report will no longer be part of *Epi Updates*. Please refer to the Cumulative Case Reports of Diseases (http://www.kdheks.gov/epi/case_reports_by_county.htm) for current case count information.



EpiTrax Data Quality Indicators

by Sheri Tubach, MPH, MS

BEPHI 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. 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. Percentages noted in red indicate a decrease in completeness compared to December 2016. The goal is to have a majority of indicators and performance measures at or above 90%. While many of the indicators have improved since last month, there are still indicators that are below 90%. Of note, the number with occupation field completed has decreased. In addition, the number of cases that have been interviewed has decreased by 8% since last month. For questions, contact Sheri Tubach at Sheri.Tubach@ks.gov.

| January 2017 | | State's Total Number of Cases* = 274 | |
|---|--------------------------------------|--------------------------------------|--|
| EpiTrax Indicators | | | |
| EpiTrax Field | Number of Cases with Field Completed | Percent Completed | |
| Address City | 272 | 99 | |
| Address County | 274 | 100 | |
| Address Zip | 268 | 98 | |
| Date of Birth | 274 | 100 | |
| Died | 245 | 89 | |
| Ethnicity† | 238 | 87 | |
| Hospitalized | 238 | 87 | |
| Occupation | 177 | 65 | |
| Onset Date | 225 | 82 | |
| Pregnancy†† | 122 | 82 | |
| Race † | 250 | 91 | |
| Sex † | 274 | 100 | |
| Date LHD investigation started | 216 | 79 | |
| Date LHD investigation Completed | 209 | 76 | |
| Persons Interviewed | 184 | 70 | |
| Persons Lost to Follow-Up | 8 | 3 | |
| Persons Refused Interview | 0 | 0 | |
| Persons Not Interviewed | 71 | 27 | |
| Performance Measures | | | |
| | Number of Cases | Percent of Cases | |
| Diseases were reported on time according to disease reporting regulations *** | 221 | 81 | |
| Disease control measures began within the target for each disease ^ | 184 | 67 | |
| Case investigations were completed within the target for each disease ^ | 150 | 55 | |

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

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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, 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)**

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

*** **Disease Reporting:** Calculated by using EpiTrax fields: **(Lab Test Date, Date Diagnosed - Presumptive, or Date Diagnosed whichever date is earlier) - (Date Reported to Public Health) ≤ KDHE required disease reporting timeframe**