

Bureau of Epidemiology & Public Health Informatics



EPI UPDATES

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Risk of *Salmonella* Infections from Live Baby Poultry

By Lindsey Martin Webb, MPH

Spring is here, and with the warmer weather comes adorable baby poultry. As cute as these chicks, ducklings, and goslings are, however, they often carry *Salmonella* which can be transmitted to humans. Each year, Kansas sees cases of salmonellosis linked to contact with live poultry. Multistate outbreaks have occurred in the US each year since 2002. In 2016, there were eight multistate outbreaks of live poultry-associated salmonellosis with 895 persons ill in 48 states including Kansas.

Salmonella can be present in the droppings and on the bodies (feathers, feet, and beaks) of live poultry and can also be found in the environment where the birds live. Cages, coops, hay, soil, and feed and water bowls where poultry are kept can become contaminated with *Salmonella*, as well as display areas in stores where baby chicks are sold. Additionally, the germs can be found on the hands, shoes, and clothing of those who handle the birds or work or play where they live and roam.

Even when they appear healthy and clean, live baby poultry can carry and transmit *Salmonella* to humans. Young children are especially at risk for *Salmonella* infections because their immune systems are still developing and they are more likely than others to put their fingers or other items into their mouths.

To reduce the risk of illness,

Do:

- Always wash hands thoroughly with soap and water right after touching live baby poultry or anything in the area where they live and roam. Use hand sanitizer if soap and water are not readily available.
- Adults should supervise hand washing for young children.
- Clean any equipment or materials associated with raising or caring for live poultry outside the house, such as cages or feed or water containers.
- Give live poultry their own space to live, outside of your home.

Don't:

- Allow children younger than five years of age, older adults, or people with weak immune systems to handle or touch chicks, ducklings, or other live poultry.
- Snuggle or kiss the birds, touch your mouth, or eat or drink around live baby poultry.
- Let live baby poultry inside the house, in bathrooms, or especially in areas where food or drink is prepared, served, or stored, such as kitchens or outdoor patios.
- Eat or drink in the area where the birds live or roam.
- Give live baby poultry as gifts to young children.



<https://www.cdc.gov/socialmedia/tools/buttons/diseaseandconditions/index.html>

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Resources:

- Laminated posters with information on preventing live poultry-associated salmonellosis are available. To request posters for use in your health department or for distribution to local farm and feed stores or healthcare providers, please contact Lindsey Webb at lindsey.webb@ks.gov.
- To read about the 2013 investigation of Kansas cases in a multistate outbreak of live poultry-associated salmonellosis, visit http://www.kdheks.gov/epi/download/2013_Live_Poultry_Salmonella_Final_Report.pdf.
- For more information on preventing illness associated with live poultry, visit these web-sites:

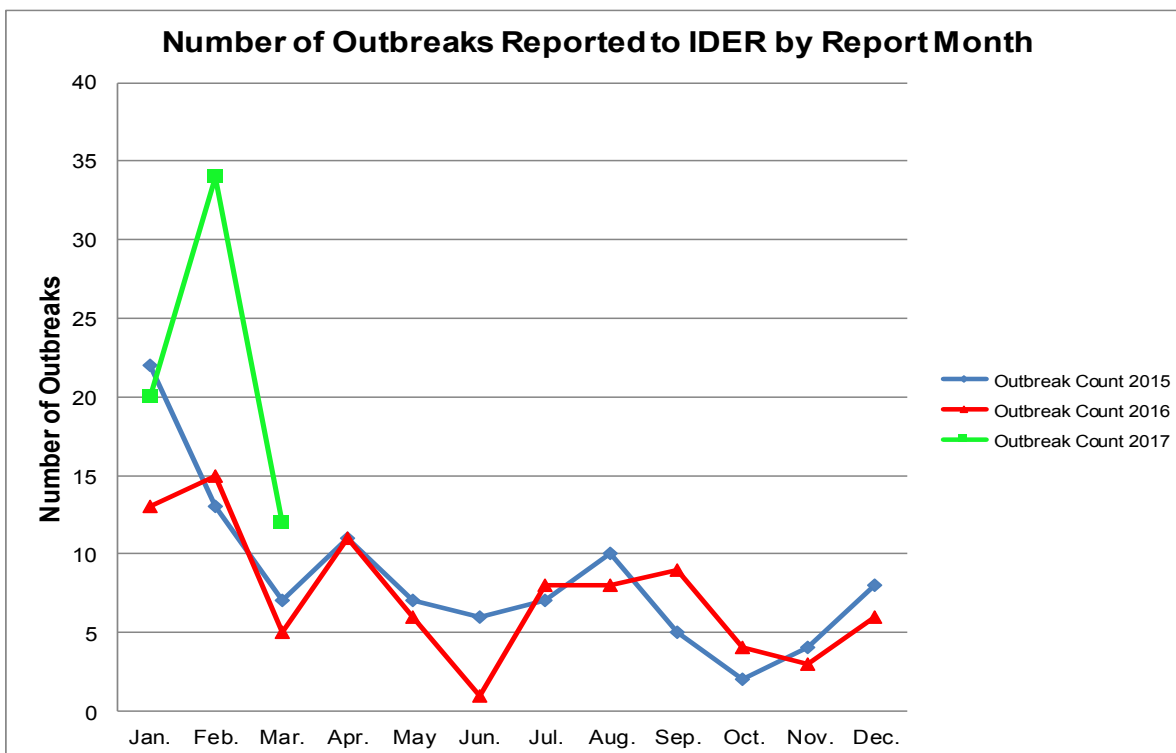
<https://www.cdc.gov/features/salmonellababybirds/>

<https://www.cdc.gov/features/salmonellapoultry/>

<https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/animal-disease-information/avian-influenza-disease/birdbiosecurity>



<https://www.cdc.gov/socialmedia/tools/buttons/diseaseandconditions/index.html>



| Date Reported | Facility Type | Transmission | Disease | County |
|---------------|---------------------|------------------|-------------------|----------|
| 3/1/2017 | Adult care facility | Person-to-Person | Influenza | Cowley |
| 3/1/2017 | Adult care facility | Person-to-Person | Influenza | Logan |
| 3/2/2017 | School or college | Person-to-Person | Mumps | Marshall |
| 3/2/2017 | School or college | Person-to-Person | Norovirus | Johnson |
| 3/3/2017 | Adult care facility | Person-to-Person | Influenza | Franklin |
| 3/14/2017 | Adult care facility | Person-to-Person | Influenza | Sedgwick |
| 3/14/2017 | School or college | Person-to-Person | Mumps | Trego |
| 3/23/2017 | School or college | Person-to-Person | Mumps | Johnson |
| 3/27/2017 | Other | Person-to-Person | Mumps | Johnson |
| 3/29/2017 | Other | Other | Cryptosporidiosis | Johnson |
| 3/31/2017 | Adult care facility | Other | Salmonellosis | Johnson |
| 3/31/2017 | Adult care facility | Person-to-Person | Influenza | Sedgwick |

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 March 1 to March 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, gender, and race were above the 90% benchmark for all VPDs reported from March 1 to March 31, 2017.

Still room for improvement... *Haemophilus influenzae* and pertussis cases had three indicators fall below the 90% benchmark. Mumps and *Streptococcus pneumoniae* cases had two indicators fall below the benchmark; while varicella had one indicator 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 March 1 to March 31, 2017 in Kansas

| Indicators | <i>Haemophilus influenzae</i> , invasive | Meningococcal Disease | Mumps | Pertussis | <i>Streptococcus pneumoniae</i> , invasive | Varicella |
|--|--|-----------------------|------------|------------|--|------------|
| Number of reported cases | 9 | 1 | 51 | 39 | 34 | 13 |
| % of cases with date of birth | 100% | 100% | 100% | 100% | 100% | 100% |
| % of cases with gender | 100% | 100% | 100% | 100% | 100% | 100% |
| % of cases with race | 100% | 100% | 100% | 92% | 100% | 100% |
| % of cases with ethnicity | 89% | 100% | 100% | 95% | 97% | 100% |
| % of cases with onset date‡ | 78% | 100% | 100% | 85% | 74% | 92% |
| % of cases with hospitalized noted | 100% | 100% | 96% | 97% | 91% | 100% |
| % of cases with died noted | 100% | 100% | 96% | 95% | 91% | 100% |
| % of cases with vaccination status* | 89% | 100% | 96% | 90% | 79% | 92% |
| % of cases with transmission setting¶ | N/A** | N/A** | 82% | 82% | N/A** | 92% |
| % of cases with completed symptom profiles | N/A** | N/A** | 79% | 82% | N/A** | 54% |

*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.



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. Most surveillance indicators are at or above 90%. The fields noted in red are still below 90% completion. 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%. For questions, contact Sheri Tubach at stubach@kdheks.gov.

| March 2017 | State's Total Number of Cases* = 347 | |
|--|--------------------------------------|-------------------|
| EpiTrax Indicators | | |
| EpiTrax Field | Number of Cases with Field Completed | Percent Completed |
| Address City | 343 | 99 |
| Address County | 347 | 100 |
| Address Zip | 338 | 97 |
| Date of Birth | 345 | 99 |
| Died | 327 | 94 |
| Ethnicity† | 314 | 90 |
| Hospitalized | 319 | 92 |
| Occupation | 243 | 70 |
| Onset Date | 306 | 88 |
| Pregnancy†† | 153 | 87 |
| Race † | 323 | 93 |
| Sex † | 347 | 100 |
| Date LHD Investigation Started | 297 | 86 |
| Date LHD Investigation Completed | 269 | 78 |
| Persons Interviewed | 257 | 77 |
| Persons Lost to Follow-Up | 20 | 6 |
| Persons Refused Interview | 1 | 0 |
| Persons Not Interviewed | 55 | 17 |
| Performance Measures | | |
| | Number of Cases | Percent of Cases |
| Diseases were reported on time according to disease reporting regulations*** | 284 | 82 |
| Disease control measures began within the target for each disease^ | 262 | 76 |
| Case investigations were completed within the target for each disease^ | 156 | 45 |

* 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); Meningococemia; 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**

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.

