



EPI UPDATES

February
2014

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Cute but Risky: Human Salmonella Infections from Live Baby Poultry

By Ingrid Garrison, DVM, MPH, DACVPM

All of the snow and cold weather make it difficult to imagine that we will ever be warm again, however spring is just around the corner. The beginning of spring includes blooms, blossoms, and baby poultry. Although adorable, live baby poultry can carry *Salmonella* and easily spread this bacterium to people, especially children. During 2013 a large, multistate outbreak of human *Salmonella typhimurium* infections were linked to live poultry in backyard flocks. Nearly 400 people were infected from 39 states; Kansas tied for third with 19 confirmed cases. Nearly 60% of the cases were in children 10 years or younger. Ninety-five percent of ill people reported purchasing live poultry from agricultural feed stores. The baby poultry were sourced from a single hatchery in New Mexico that then distributed the baby poultry to numerous stores throughout the United States.

Live baby poultry can carry, and shed, *Salmonella* but still appear healthy. Children can be exposed through direct contact, such as holding, cuddling, or kissing the birds but also by touching things where the birds live. This includes cages, feed, bedding, and water bowls. Although people raise poultry for meat or egg production, many children receive baby poultry as a gift during Easter. In addition, families enjoy taking their children to the local feed store to view and touch the chicks and ducklings. We recommend to those that sell or display chicks, ducklings, and other live poultry to provide information about the risk of acquiring *Salmonella* from contact with live poultry, though it is not required.

February 24—March 2 is National Bird Health Awareness Week sponsored by the United States Department of Agriculture (USDA). The USDA has a wealth of information on how to keep birds healthy and focuses on disease prevention practices. This information is for anyone who has birds including poultry, pet, or wild birds (http://www.aphis.usda.gov/animal_health/birdbiosecurity/). The highlight of this week is a free webinar on Thursday, February 27 about maintaining a healthy (and growing) flock (http://www.aphis.usda.gov/animal_health/birdbiosecurity/downloads/feb27_webinar.pdf).

You may be surprised to learn that in Kansas:

- Pet stores are inspected by the Kansas Department of Agriculture and are required to post signs warning about the health risk from *Salmonella* on all reptile enclosures. However feed stores, in general, are not inspected and are not required to post signs warning about the health risk from *Salmonella* on poultry displays.
- Childcare facilities are allowed to keep birds, and reptiles, on the premises as long as the bird is kept out of the kitchen during food preparation (K.A.R. 28-4-131).

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There are ways to reduce the risk of a *Salmonella* infection from live baby poultry:

Do

- Wash hands thoroughly with soap and water right after touching live 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.
- Wash hands after removing soiled clothes and shoes.
- If you collect eggs from the hens, thoroughly cook them, as *Salmonella* can pass from healthy looking hens into the interior of normal looking eggs.
- Clean any equipment or materials associated with raising or caring for live poultry outside the house, such as cages or feed and water containers.
- If you have free-roaming live poultry, assume where they live and roam is contaminated.

Don't

- Don't let children younger than 5 years of age, older adults, or people with weakened immune systems handle or touch chicks, ducklings, or other live poultry.
- Don't snuggle or kiss the birds, touch your mouth, or eat or drink around live baby poultry.
- Don't let live baby poultry inside the house, in bathrooms, or especially in areas where food and drink is prepared, served, or stored, such as kitchens or outdoor patios.
- Don't eat or drink in the area where the birds live or roam.
- Don't give live baby poultry as gifts to young children.

The CDC webpage on *Salmonella* from live baby poultry offers more information for healthcare providers, poultry enthusiasts, and public health professionals. The information includes free posters, podcasts, media kits, and much more. This information can be accessed at <http://www.cdc.gov/features/salmonellababybirds/>.

Disease Reporting and Disease Control Performance Measures

By Daniel Neises, MPH

Public Health Emergency Preparedness Cooperative Agreement
 Capability #13: Public Health Surveillance and Epidemiological Investigation

Selected Diseases:

Disease	Case Classification Criteria
Hepatitis A	confirmed
Salmonellosis	confirmed, excluding typhoid fever
<i>E. coli</i> , STEC	confirmed
Shigellosis	confirmed
Tularemia	confirmed and probable
Varicella	confirmed and probable
Botulism	confirmed, excluding infant botulism
Measles	confirmed
Meningococcal disease	confirmed
Pertussis	confirmed, with laboratory results

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Disease Reporting: Proportion of selected disease reports received by a public health agency within the awardee-required timeframe. Calculated by using EpiTrax fields:

$$\frac{(\text{Lab Test Date or Date Diagnosed} - \text{Presumptive}) - (\text{Date Reported to Public Health})}{\leq \text{KDHE-required disease reporting timeframe}}$$

Disease Control: Proportion of reports of selected disease for which initial control measures were initiated within an appropriate timeframe. Calculated by using EpiTrax fields:

$$\frac{(\text{Date LHD Investigation Started}) - (\text{Date Reported to Public Health})}{\leq \text{CDC-required timeframe}}$$

Disease Reporting

Disease	KDHE Required Timeframe	Statewide Received	Statewide Received On Time	%	% Change from Previous Month
Hepatitis A	7 days	9	9	100	0
Salmonellosis	7 days	245	239	98	+1
<i>E. coli</i> , STEC	7 days	45	43	96	+1
Shigellosis	7 days	21	21	100	0
Tularemia	7 days	14	13	93	0
Varicella	7 days	185	177	96	0
Botulism	4 hours*	-	-	-	-
Measles	4 hours*	-	-	-	-
Meningococcal disease	4 hours*	-	-	-	-
Pertussis	4 hours*	128	91	71	+2

*Because EpiTrax does not capture time reported to public health, KDHE is allowed to "consider cases as immediately reported if the selected case event date and date of first report to a health department occur on the same date."

Disease Control

Disease	CDC Required Timeframe	Statewide Received	Statewide Investigated On Time	%	% Change from Previous Month
Hepatitis A	7 days	9	9	100	0
Salmonellosis	3 days	245	189	77	-2
<i>E. coli</i> , STEC	3 days	45	30	66	+1
Shigellosis	3 days*	21	14	66	-2
Tularemia	2 days	14	13	93	0
Varicella	1 day*	185	158	85	-2
Botulism	1 day	-	-	-	-
Measles	1 day	-	-	-	-
Meningococcal disease	1 day	-	-	-	-
Pertussis	1 day*	128	112	88	+3

*Because EpiTrax does not capture time reported to public health, KDHE is allowed to "consider cases as immediately reported if the selected case event date and date of first report to a health department occur on the same date."

**Collecting data for these diseases is optional. KDHE has defined these timeframes, not CDC.

Vaccine-Preventable Disease Surveillance Indicators

by Chelsea Raybern, 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, 2014, can be found in the table below. The percentages in bold 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 date of birth and gender were completed for at least 95% of all VPDs reported from January 1 to January 31, 2014. More than half of the indicators (date of birth, gender, race, ethnicity, onset date, hospitalization, and death) were completed for at least 90% of pertussis cases. In addition, more than half of the indicators (date of birth, gender, race, onset date, hospitalization, and death) were completed for at least 92% of varicella cases. The median number of days for local health departments to accept *Haemophilus influenzae*, pertussis, and varicella cases was zero.

Still room for improvement...Completeness of vaccination status and percent of completed investigations were much lower than 90% for all diseases reported in January. More than half of the indicators (race, ethnicity, onset date, hospitalization, death, vaccination status, and completed investigations) for *Haemophilus influenzae* and *Streptococcus pneumoniae* cases were less than 90% complete. The median number of days for local health departments to accept *Streptococcus pneumoniae* cases was six with a range of zero to 16 days. Even though the median number of days for local health departments to accept *Haemophilus influenzae*, pertussis, and varicella cases was zero, the ranges were zero to 27 days, zero to 10 days, and zero to three days, respectively.

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 Chelsea Raybern at (785) 296-0339 or craybern@kdheks.gov.

VPD Indicators Reported from January 1 to January 31, 2014 in Kansas

Indicators	<i>Haemophilus influenzae</i> , invasive	Pertussis	<i>Streptococcus pneumoniae</i> , invasive	Varicella
Number of reported cases	6	39	24	25
% of cases with date of birth	100%	97%	100%	96%
% of cases with gender	100%	95%	100%	96%
% of cases with race	83%	92%	83%	92%
% of cases with ethnicity	83%	90%	75%	88%
% of cases with onset date [‡]	33%	90%	71%	92%
% of cases with hospitalized noted	67%	92%	88%	100%
% of cases with died noted	50%	92%	88%	100%
% of cases with vaccination status*	50%	87%	88% [§]	88%
% of cases with transmission setting [¶]	N/A ^{**}	82%	N/A ^{**}	84%
% of investigations completed by local health departments ^{§§}	67%	82%	79%	68%
Median # of days from report to case acceptance (range) ^{¶¶}	0 (0-27)	0 (0-10)	6 (0-16)	0 (0-3)

^{‡‡}Data is pulled from onset date field within the clinical tab, not investigation tab.

*Unknown is considered a valid response if patient is older than 18 years.

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

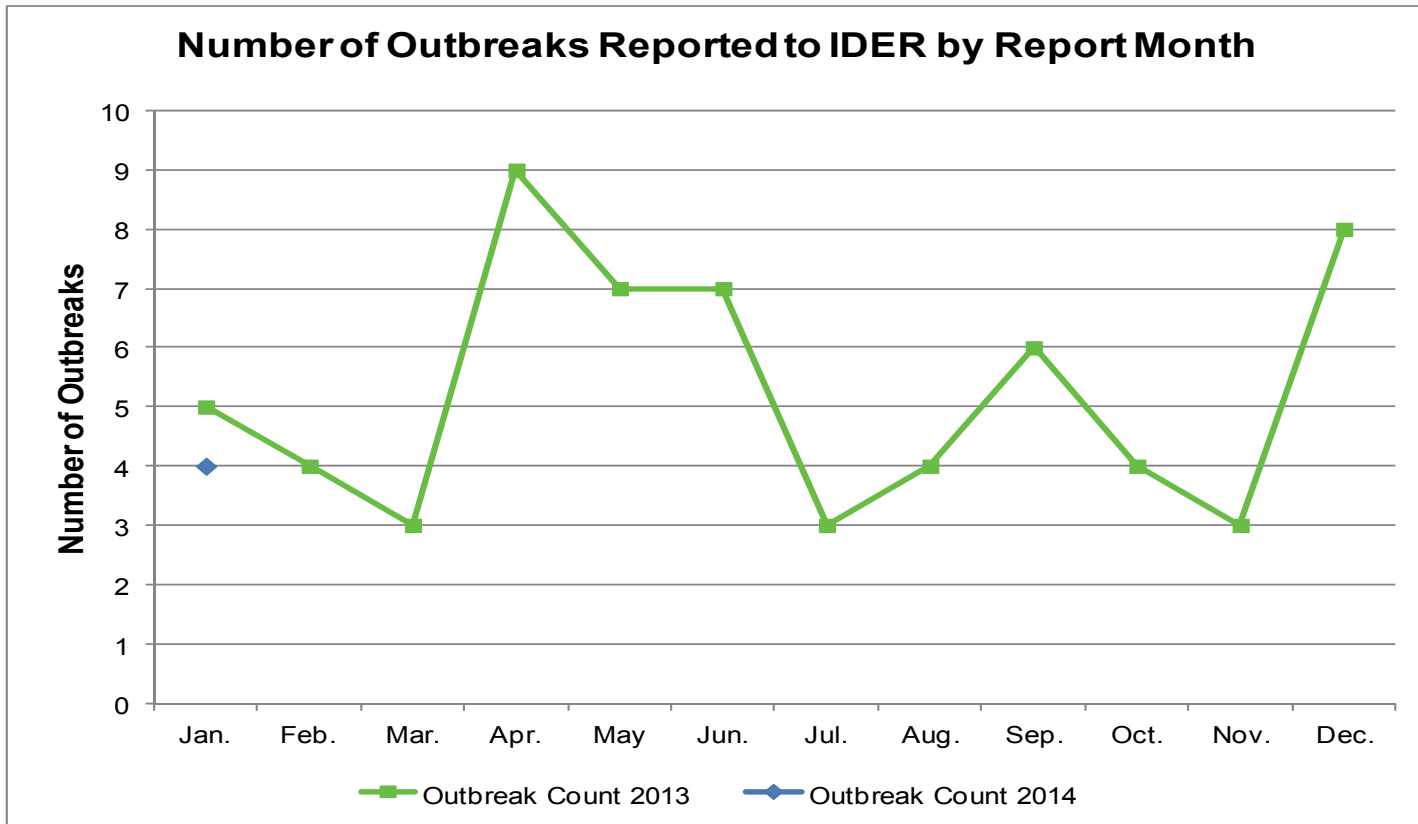
[¶]Unknown is considered a valid response for this indicator.

^{**}Indicator field is not included in supplemental disease form.

^{§§}Status includes when local health department completes investigation, approves the case, or when the case is closed by state.

^{¶¶}Time is from public health report date to when local health department accepts case.

Monthly Outbreak Summaries



Facility Type	Organism	Transmission	County	Date Reported
Restaurant	Norovirus	Indeterminate / Other / Unknown	Shawnee	1/3/2014
Child Care Center	Influenza	Person-to-Person	Jefferson	1/7/2014
School or College	Outbreak Case - Unknown Etiology	Indeterminate / Other / Unknown	Johnson	1/16/2014
School or College	Outbreak Case - Unknown Etiology	Indeterminate / Other / Unknown	Johnson	1/31/2014

Reported Disease Counts - January 2014							Grand Total	3 Yr. Avg. 2011-2013
Not Available	Confirmed	Not a Case	Probable	Suspect				
Disease	Count	Count	Count	Count	Count	Count	Count	
Amebiasis (<i>Entamoeba histolytica</i>)	2	0	0	0	0	2	0	
Campylobacteriosis	11	6	1	0	17	35	44	
Carbapenem-resistant Enterobacteriaceae	0	1	5	0	0	6	0	
Cholera (<i>Vibrio cholerae</i>)	3	0	0	0	0	3	1	
Cryptosporidiosis	2	2	0	3	0	7	4	
Dengue	3	0	0	1	0	4	1	
Ehrlichiosis, <i>Ehrlichia chaffeensis</i> (f. HME)	1	0	0	0	0	1	1	
Giardiasis	2	5	0	0	0	7	14	
HUS - Hemolytic Uremic Syndrome postdiarrheal	1	0	0	0	0	1	0	
<i>Haemophilus influenzae</i> , invasive disease (Including Hib)	4	2	0	0	0	6	4	
Harmful Algal Bloom Illness - Human	2	0	0	0	0	2	0	
Hepatitis A	5	1	3	1	0	10	55	
Hepatitis B virus infection, chronic	15	1	37	16	1	70	44	
Hepatitis B, acute	1	0	7	0	0	8	5	
Hepatitis C virus, past or present	91	45	47	0	6	189	167	
Hepatitis C, acute	1	0	0	0	0	1	1	
Hepatitis E, acute	1	0	0	0	0	1	0	
Influenza	7	42	14	0	0	63	14	
Legionellosis	2	0	0	0	0	2	2	
Listeriosis	0	1	0	0	0	1	0	
Lyme Disease (<i>Borrelia burgdorferi</i>)	8	0	6	0	0	14	8	
Measles (Rubeola)	1	0	1	0	0	2	6	
Meningitis, Bacterial Other	4	0	1	0	0	5	3	
Mumps	1	0	0	0	0	1	6	
Norovirus	0	5	0	4	0	9	15	
Parapertussis	2	0	0	0	0	2	0	
Pertussis	7	21	7	8	3	46	47	
Q Fever (<i>Coxiella burnetii</i>), Acute	0	0	1	0	0	1	1	
Rabies, animal	2	2	3	0	0	7	8	
Rubella	0	0	41	0	0	41	0	
Salmonellosis	2	17	0	0	0	19	25	
Shiga toxin-producing <i>Escherichia coli</i> (STEC)	4	0	1	0	4	9	6	
Shigellosis	4	2	1	0	0	7	13	
Spotted Fever Rickettsiosis (RMSF)	1	0	2	1	0	4	5	
Streptococcal disease, invasive, Group A	1	4	0	0	0	5	3	
<i>Streptococcus pneumoniae</i> , invasive disease	5	17	0	0	2	24	24	
Transmissible Spongiform Enceph (TSE / CJD)	3	0	0	0	0	3	1	
Varicella (Chickenpox)	7	4	9	13	0	33	53	
West Nile virus non-neuroinvasive disease	0	0	2	0	0	2	2	
Grand Total	207	178	189	47	33	654	914	