



Four Multistate Outbreaks of Human *Salmonella* Infections Linked to Live Poultry in Backyard Flocks

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Highlights

- [Read the Advice to Backyard Flock Owners »](#)
- CDC, public health, veterinary, and agriculture officials in many states and the U.S. Department of Agriculture's Animal and Plant Health Inspection Service (USDA-APHIS) are investigating four multistate outbreaks of human *Salmonella* infections linked to contact with live poultry.
- As of July 29, 2015, 218 people infected with the outbreak strains of *Salmonella* have been reported from 41 states.
 - 50 ill people have been hospitalized. No deaths have been reported.
- Epidemiologic, laboratory, and traceback findings have linked these four outbreaks of human *Salmonella* infections to contact with chicks, ducklings, and other live poultry from multiple hatcheries.
 - 117 (84%) of the 140 ill people who were interviewed reported contact with live poultry in the week before their illness began.
- CDC's National Antimicrobial Resistance Monitoring System (<http://www.cdc.gov/narms/>) (NARMS) laboratory conducted antibiotic resistance testing on *Salmonella* isolates collected from 16 ill people infected with one of the outbreak strains.
 - All 16 isolates were susceptible to all antibiotics tested on the NARMS panel.
 - CDC's NARMS laboratory continues to conduct antibiotic resistance testing on additional clinical isolates collected from ill persons infected with the outbreak strains. Results will be reported when they become available.
- Backyard flock owners should take steps to protect themselves and their families:
 - Always wash hands thoroughly with soap and water right after touching live poultry or anything in the area where the birds live and roam.
 - Do not let live poultry inside the house.
 - Learn about additional recommendations (<http://www.cdc.gov/Features/SalmonellaPoultry/>) to prevent *Salmonella* infections

from live poultry. These recommendations are important and apply to all live poultry, regardless of the age of the birds or where they were purchased.

- All suppliers of live-poultry including mail-order hatcheries, agricultural feed stores, and others that sell or display chicks, ducklings, and other live poultry should provide health-related information to owners and potential purchasers of these birds prior to the point of purchase. This should include information about the risk of acquiring a *Salmonella* infection from contact with live poultry.
- Consumers should only obtain birds from reputable sources including hatcheries who participate in the U.S. Department of Agriculture National Poultry Improvement Plan (USDA-NPIP), U.S. Voluntary *Salmonella* Monitoring Program (<http://www.gpo.gov/fdsys/pkg/FR-2014-07-09/pdf/2014-16037.pdf>). The intent of this program is to reduce the incidence of *Salmonella* in day-old poultry in the hatchery and give the poultry industry a better opportunity to reduce the incidence of *Salmonella* in their products.
 - Read the advice to mail-order hatcheries and feed stores (<http://www.cdc.gov/salmonella/live-poultry-04-13/advice-consumers.html>) and others that sell or display live poultry.

July 30, 2015

Investigation Update

CDC continues to collaborate with public health, veterinary, and agriculture officials in many states and with the U.S. Department of Agriculture's Animal and Plant Health Inspection Service (USDA-APHIS) to investigate several multistate outbreaks of human *Salmonella* infections linked to contact with live poultry. Since the initial announcement on July 1, 2015, an additional serotype was identified. A total of 10 DNA fingerprints (outbreak strains) are now included in these outbreak investigations.

In the four outbreaks, a total of 218 people infected with one of the outbreak strains of *Salmonella* have been reported from 41 states as of July 29, 2015. Illnesses that occurred after July 4, 2015, might not yet be reported due to the time it takes between when a person becomes ill and when the illness is reported. This takes an average of 2 to 4 weeks.

In ongoing interviews, ill people answered questions about contact with animals and foods consumed during the week before becoming ill; to date, 117 (84%) of the 140 ill people interviewed reported contact with live poultry (e.g., chicks, chickens, ducks, ducklings) before becoming ill. Ninety-four ill people who had purchase records available reported purchasing live poultry from 32 different suppliers including feed supply stores, Co-Ops, "flea markets", friends, and hatcheries in multiple states. Ill people reported purchasing live

poultry for backyard flocks to produce eggs or meat, or to keep as pets. Many ill people in these outbreaks reported bringing the live baby poultry into their homes, and others reported kissing or cuddling with the live poultry. These behaviors increase a person's risk of a *Salmonella* infection.

To date, CDC's NARMS laboratory conducted antibiotic resistance testing on clinical isolates collected from 16 ill people infected with one of the outbreak strains; all isolates were susceptible to all antibiotics tested on the NARMS panel. CDC's NARMS laboratory continues to conduct antibiotic resistance testing on additional clinical isolates. Results will be reported when they become available.

CDC and state and local public health partners are continuing laboratory surveillance through PulseNet to identify additional ill people and to interview them. CDC will provide updates when more information is available. Summaries of each of the four outbreak investigations are provided below.

Outbreak 1: *Salmonella* Enteritidis Investigation

Since the initial announcement on July 1, 2015, 10 additional people infected with the outbreak strains of *Salmonella* Enteritidis have been reported from 5 states as of July 29, 2015. The additional ill people have been reported from the following states: California (2), New Hampshire (2), Ohio (4), Virginia (1), and Washington (1).

Among the people who reported the date they became ill, illnesses began between January 5, 2015 and July 4, 2015. Ill people range in age from younger than one year to 74, and the median age is 21. Forty-eight percent of ill people are female. Among 30 ill people with available information, 7 (23%) have been hospitalized. No deaths have been reported.

Outbreak 2: *Salmonella* Hadar Investigation

Since the initial announcement on July 1, 2015, 5 additional people infected with the outbreak strain of *Salmonella* Hadar have been reported from 4 states as of July 29, 2015. The additional ill people have been reported from the following states: California (2), New York (1), Virginia (1), and Washington (1).

Among the people who reported the date they became ill, illnesses began between February 24, 2015 and July 6, 2015. Ill people range in age from younger than one year to 89, and the median age is 38. Fifty-three percent of ill people are female. Among 48 ill people with available information, 26 (54%) have been hospitalized. No deaths have been reported.

Outbreak 3: *Salmonella* Indiana Investigation

Since the initial announcement on July 1, 2015, 5 additional people infected with the outbreak strains of *Salmonella* Indiana have been reported from 4 states as of July 29, 2015. The additional ill people have been reported from the following states: California (1), New York (2), Pennsylvania (1), and South Carolina (1).

Among the people who reported the date they became ill, illnesses began between January 5, 2015 and June 24, 2015. Ill people range in age from younger than one year to 82, and the median age is 2. Fifty-three percent of ill people are female. Among 30 ill people with available information, 9 (30%) have been hospitalized. No deaths have been reported.

Outbreak 4: *Salmonella* Muenchen or *Salmonella* Muenster Investigation

Since the initial announcement on July 1, 2015, 17 additional people have become infected with the outbreak strains of *Salmonella* Muenchen or *Salmonella* Muenster from 12 states as of July 29, 2015. The number of ill people identified in each state is as follows: Alabama (2), Georgia (1), Illinois (1), Kentucky (1), Michigan (3), North Carolina (2), New Jersey (2), New York (1), Virginia (1), Washington (1), Wisconsin (1), and West Virginia (1). Two DNA fingerprint (outbreak strains) are included in this investigation.

Among the people who reported the date they became ill, illnesses began between and March 8, 2015 and July 11, 2015. Ill people range in age from younger than one year to 77, and the median age is 15. Forty-seven percent of ill people are female. Among 24 ill people with available information, 8 (33%) have been hospitalized. No deaths have been reported.

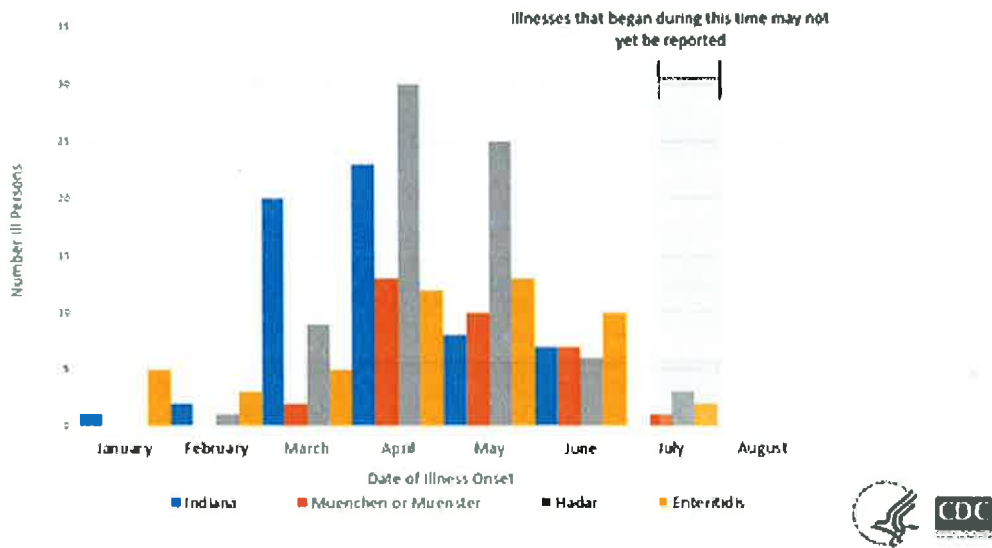
> Initial Announcement

At A Glance

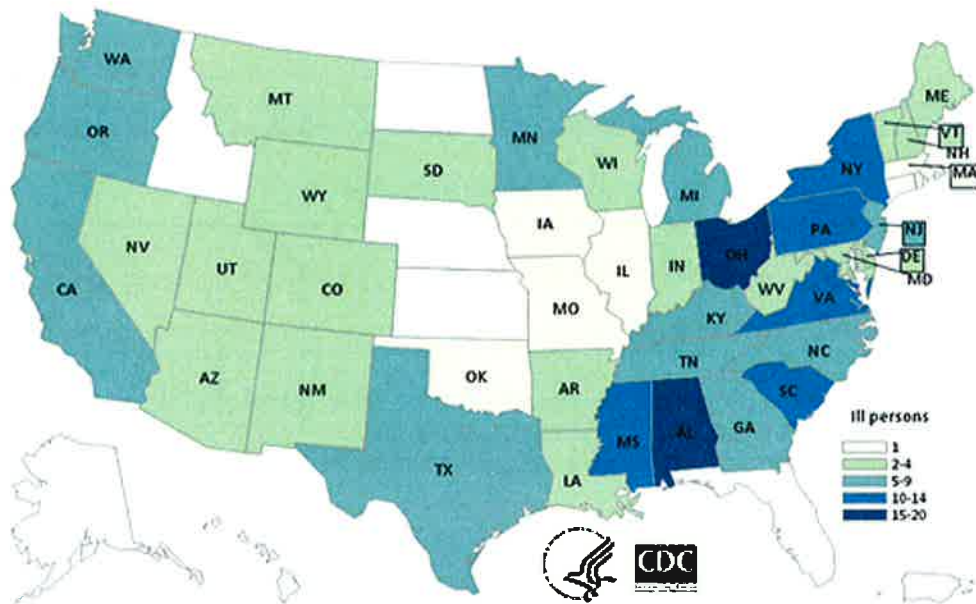
- Case Count: 218
- States: 41
- Deaths: 0
- Hospitalizations: 50

More Information

- Advice to Backyard Flock Owners
- Signs & Symptoms
- Key Resources



[CLICK TO VIEW EPI CURVE GRAPHS](#)



[CLICK TO VIEW CASE COUNT MAP](#)

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(<http://www.cdc.gov/Other/plugins/>)

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National Center for Emerging and Zoonotic Infectious Diseases (NCEZID) (</ncezid/index.html>)

Division of Foodborne, Waterborne, and Environmental Diseases (DFWED) (</ncezid/dfwed/index.html>)