



Centers for Disease Control and Prevention
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Salmonella

Multistate Outbreak of *Salmonella* Heidelberg Infections Linked to Chicken

Posted March 5, 2013 2:30 PM ET

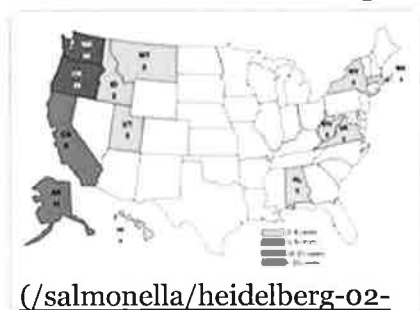
At a Glance:

- **Case Count: 128** (</salmonella/heidelberg-02-13/epi.html>)
- **States: 13** (</salmonella/heidelberg-02-13/map.html>)
- **Deaths: 0**
- **Hospitalizations: 32**
- **Recall: No**

More Information:

- [Advice to Consumers \(/salmonella/heidelberg-02-13/advice-consumers.html\)](/salmonella/heidelberg-02-13/advice-consumers.html)
- [Signs & Symptoms \(/salmonella/heidelberg-02-13/signs-symptoms.html\)](/salmonella/heidelberg-02-13/signs-symptoms.html)
- [Key Resources \(/salmonella/heidelberg-02-13/key-resources.html\)](/salmonella/heidelberg-02-13/key-resources.html)

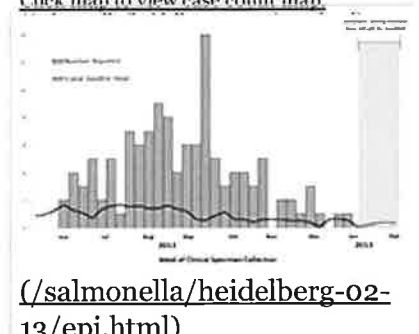
Latest Case Count Map



[\(/salmonella/heidelberg-02-13/map.html\)](/salmonella/heidelberg-02-13/map.html)

Latest Epi Curve

Click map to view case count map.



[\(/salmonella/heidelberg-02-13/epi.html\)](/salmonella/heidelberg-02-13/epi.html)

Click graph to view epi curve graph.

[\(/salmonella/heidelberg-02-13/epi.html\)](/salmonella/heidelberg-02-13/epi.html)

Highlights

- **Read the Advice to Consumers »** (</salmonella/heidelberg-02-13/advice-consumers.html>)
- Since June 4, 2012, a total of 128 persons infected with the outbreak strain of *Salmonella* Heidelberg have been reported from 13 states.
 - 31% of ill persons have been hospitalized, and no deaths have been reported.
 - Most of the ill persons have been reported from two states, Oregon (39) and Washington (56).
- State public health officials are interviewing ill persons to obtain information regarding foods they might have eaten and other exposures in the week before illness.
 - Information available to date indicates that consumption of chicken is the most likely source of infection for many of the ill persons.
 - Oregon and Washington have identified Foster Farms brand chicken as the most likely source of the infections in their states.
- Testing conducted by the Washington State Public Health Laboratories identified the outbreak strain of *Salmonella* Heidelberg in four intact samples of chicken collected from three ill persons' homes in Washington.
- The U.S. Department of Agriculture Food Safety and Inspection Service (USDA-FSIS) is currently conducting an investigation to determine the source of infections in this outbreak.
- It is not unusual for raw poultry from any producer to have *Salmonella*. This underscores the importance for consumers to follow food safety tips (</salmonella/heidelberg-02-13/advice-consumers.html>) to help protect themselves and others from foodborne illness.

March 5, 2013

Case Count Update

Since June 4, 2012, a total of 128 individuals infected with the outbreak strain of *Salmonella* Heidelberg have been reported from 13 states. The number of ill persons identified in each state with the outbreak strain is as follows: Alabama (1), Alaska (11), California (9), Hawaii (1), Idaho (2), Massachusetts (1), Montana (2), New York (1), Oregon (39), Utah (3), Virginia (1), Washington (56), and West Virginia (1). Since the last update, four new ill persons have been reported from Alabama (1), California (2), and Oregon (1).

Among 128 persons for whom information is available, illness onset dates range from June 4, 2012 to February 4, 2013. Ill persons range in age from less than 1 year to 94 years, with a median age of 22 years. Fifty-five percent of ill persons are female. Among 103 persons with available information, 32 (31%) reported being hospitalized. No deaths have been reported.

Clinical specimens collected after February 4, 2013 might not yet be reported yet due to the time it takes between when a person becomes ill and when the illness is reported.

Investigation Update

Testing conducted by the Washington State Public Health Laboratories identified the outbreak strain of *Salmonella* Heidelberg in four intact samples of chicken collected from three ill persons' homes in Washington.

The National Antimicrobial Resistance Monitoring System

(<http://www.fda.gov/AnimalVeterinary/SafetyHealth/AntimicrobialResistance/NationalAntimicrobialRe>

<http://www.cdc.gov/Other/disclaimer.html>) (NARMS) retail meat surveillance program is an

ongoing collaboration among the U.S. Food and Drug Association Center for Veterinary Medicine, CDC, and participating state public health laboratories. NARMS monitors antimicrobial resistance in *Salmonella*, *Campylobacter*, *Enterococcus*, and *Escherichia coli* isolated from raw unprocessed retail meats. From 2002 to 2011, *Salmonella* was isolated from 1503 (13%) of 11417 retail chicken samples tested by NARMS. *Salmonella* Heidelberg was identified in 233 retail chicken samples tested by 11 state public health laboratories. Among these 233 isolates, 48 (21%) matched the outbreak strain, and 47 (98%) of those were isolated from Foster Farms retail chicken samples.

Additionally, [NARMS at CDC \(/narms/index.html\)](http://narms.cdc.gov/index.html) conducted antimicrobial susceptibility testing on isolates collected from 14 ill persons infected with the outbreak strain and isolates from the four intact samples of chicken taken from ill persons' homes. Twelve of fourteen isolates from ill persons were susceptible to all antibiotics tested, but two were resistant to multiple antibiotics, including amoxicillin/clavulanic acid, ampicillin, and ceftriaxone. Ceftriaxone is commonly used to treat invasive *Salmonella* infections and is particularly important for treating such infections in children. Three of the four isolates from chicken samples were susceptible to all antibiotics tested, but one was resistant to gentamicin, streptomycin, and sulfisoxazole. Individuals infected with antibiotic-resistant *Salmonella* may not respond to treatment or may have more severe infections than those infected with susceptible strains.

Initial Announcement

February 14, 2013

CDC is collaborating with public health officials in many states and the U.S. Department of Agriculture's Food Safety and Inspection Service (USDA-FSIS) to investigate a multistate outbreak of *Salmonella* Heidelberg infections. Public health investigators are using DNA "fingerprints" of *Salmonella* bacteria obtained through diagnostic testing with pulsed-field gel electrophoresis, or PFGE, to identify cases of illness that may be part of this outbreak. They are using data from [PulseNet \(/pulsenet/\)](http://pulsenet.net), the national subtyping network made up of state and local public health laboratories and federal food regulatory laboratories that performs molecular surveillance of foodborne infections.

Since June 4, 2012, a total of 124 individuals infected with the outbreak strain of *Salmonella* Heidelberg have been reported from 12 states. Most of the ill persons have been reported from two states, Washington (56) and Oregon (38). At this time, CDC is not releasing the names of the other states until it is determined how these illnesses are linked to this outbreak.

Among 124 persons for whom information is available, illness onset dates range from June 4, 2012, to January 6, 2013. Ill persons range in age from less than 1 year to 94 years, with a median age of 23 years. Fifty-five percent of ill persons are female. Among 97 persons with available information, 31 (32%) reported being hospitalized. No deaths have been reported. Ill persons continue to be reported at lower levels in the most recent months, which may represent a "winter lull" in *Salmonella* infections.

The outbreak can be visually described with a chart showing the number of people who became ill each day or week. [This chart is called an epi curve \(/salmonella/heidelberg-02-13/epi.html\)](http://salmonella.heidelberg-02-13/epi.html). Illnesses that occurred after January 6, 2013 might not be reported yet 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 3 weeks. For more details, please see [Salmonella Outbreak Investigations: Timeline for Reporting Cases \(/salmonella/outbreaks/reporting_timeline.html\)](http://salmonella/outbreaks/reporting_timeline.html).

Investigation of the Outbreak

Epidemiologic and traceback investigations conducted by officials in local, state, and federal public health, agriculture, and regulatory agencies indicate that consumption of chicken is the most likely source of this outbreak of *Salmonella* Heidelberg infections. Washington and Oregon have identified Foster Farms brand chicken as the most likely source of the infections in their states. Approximately 81% of ill persons interviewed report consuming chicken in the week before becoming ill. Investigations are ongoing to determine the specific type and source of chicken that might be linked with illness.

FSIS is currently conducting an investigation to determine the source of infections in this outbreak. CDC and state and local public health partners are continuing laboratory surveillance through [PulseNet \(/pulsenet/\)](http://pulsenet/) to identify additional ill persons and to interview ill persons about foods eaten before becoming ill. FSIS is continuing to work closely with CDC and state partners during this investigation.

Page last reviewed: February 14, 2013

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Content source: [Centers for Disease Control and Prevention](#)

[National Center for Emerging and Zoonotic Infectious Diseases \(NCEZID\)](#)

[Division of Foodborne, Waterborne, and Environmental Diseases \(DFWED\)](#)

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