

Multistate Outbreak of Human *Salmonella* Typhimurium Infections Linked to Pet Hedgehogs (Final Update)

Posted June 14, 2013 11:45 AM ET

Salmonella is an important cause of human illness in the United States. More information about *Salmonella*, and steps people can take to reduce their risk of infection, can be found on the [CDC Salmonella Web Page](#).

Highlights

- [Read the Advice to Pet Owners »](#)
- A total of 26 persons infected with the outbreak strain of *Salmonella* Typhimurium were reported from 12 states.
 - The number of ill persons identified in each state was as follows: Alabama (1), Idaho (1), Illinois (1), Indiana (1), Louisiana (1), Michigan (3), Minnesota (3), Missouri (1), New Hampshire (1), Ohio (5), Oregon (1), and Washington (7).
 - 35% of ill persons were hospitalized. One death associated with *Salmonella* infection was reported in Washington.
 - 35% of ill persons were children 10 years of age or younger.
- Collaborative epidemiologic, laboratory, and traceback findings linked this outbreak of human *Salmonella* infections to contact with pet hedgehogs purchased from multiple sources in different states.
- At this time, no further updates are planned for this outbreak investigation. However, contact with hedgehogs continues to be a source of human *Salmonella* infections. You should know [how to protect yourself and your family from illness spread between people and hedgehogs](#).
 - It is very important to wash your hands thoroughly with soap and water right after touching hedgehogs or anything in the area where they live and roam.
- *Salmonella* is an important cause of human illness in the United States. More information about *Salmonella* infections and steps people can take to reduce their risk of infection can be found on the [CDC Salmonella Web Page](#).

Outbreak Summary

Introduction

CDC collaborated with public health and agriculture officials in many states and the U.S. Department of Agriculture's (USDA) Animal and Plant Health Inspection Service, Animal Care,

to investigate an outbreak of human *Salmonella* Typhimurium infections linked to contact with pet hedgehogs purchased from multiple sources in different states.

Public health investigators used the [PulseNet](#) system to identify cases of illness that were part of this outbreak. In PulseNet, the national subtyping network of public health and food regulatory agency laboratories coordinated by CDC, DNA “fingerprints” of *Salmonella* bacteria are obtained through diagnostic testing with pulsed-field gel electrophoresis, or PFGE, to identify cases of illness that were part of this outbreak.

A total of 26 persons infected with the outbreak strain of *Salmonella* Typhimurium were reported from 12 states: Alabama (1), Idaho (1), Illinois (1), Indiana (1), Louisiana (1), Michigan (3), Minnesota (3), Missouri (1), New Hampshire (1), Ohio (5), Oregon (1), and Washington (7).

Among 26 persons for whom information was available, illness onset dates ranged from December 26, 2011 to April 8, 2013. Ill persons ranged in age from less than 1 year to 91 years, with a median age of 15 years. Thirty-five percent of ill persons were children 10 years of age or younger. Fifty-eight percent of ill persons were female. Among 23 persons with available information, 8 (35%) reported being hospitalized. One death associated with *Salmonella* infection was reported in Washington.

Investigation of the Outbreak

Epidemiologic, laboratory, and traceback investigations conducted by officials in local, state, and federal public health, agriculture, and regulatory agencies linked this outbreak to contact with pet hedgehogs. During interviews, ill persons answered questions about contact with animals and foods consumed during the week before becoming ill. Twenty (80%) of 25 ill persons interviewed reported contact with pet hedgehogs or their environments before becoming ill. Some ill persons specifically mentioned contact with African Pygmy hedgehogs.

State health department laboratories and the USDA National Veterinary Services Laboratory in Ames, Iowa tested hedgehog and environmental samples collected from ill persons’ homes. Several fecal samples from pet hedgehogs and environmental samples from areas where pet hedgehogs lived or were bathed in patient households yielded the outbreak strain of *Salmonella* Typhimurium.

Findings of multiple traceback investigations of pet hedgehogs from homes of ill persons identified multiple sources in different states as the source of the hedgehogs. Among 17 ill persons with available purchase information, hedgehogs were reportedly purchased from the following sources: 10 (59%) were purchased from USDA-licensed breeders, 1 (5%) was purchased from a USDA-licensed pet store, 3 (18%) were purchased from breeders that were either not USDA-licensed or their licensure status was unknown, and 3 (18%) were purchased from private individuals. A single source of the hedgehogs was not identified.

At this time, no further updates are planned for this outbreak investigation. However, contact with hedgehogs continues to be a source of human *Salmonella* infections. You should know how to protect yourself and your family from illness spread between people and hedgehogs. Hedgehogs can be carrying *Salmonella* bacteria but appear healthy and clean and show no signs

of illness. It is very important to wash your hands thoroughly with soap and water right after touching hedgehogs or anything in the area where they live and roam. Adults should supervise hand washing for young children.

Salmonella is an important cause of human illness in the United States. More information about *Salmonella* and steps people can take to reduce their risk of infection can be found on the [CDC Salmonella Web Page](#).

Progression of the Outbreak Investigation

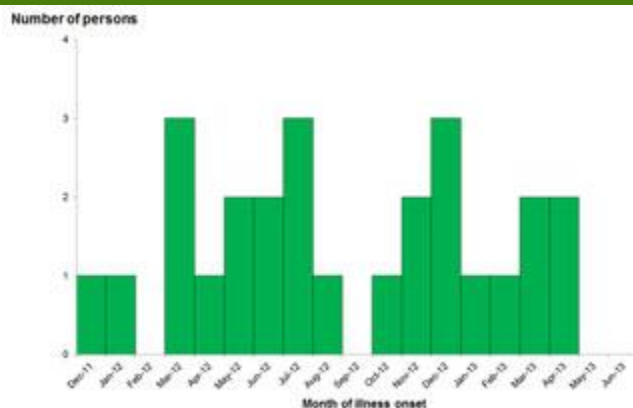
At a Glance:

- Case Count: [26](#)
- States: [12](#)
- Deaths: 1
- Hospitalizations: 8

More Information:

- [Advice to Pet Owners](#)
- [Signs & Symptoms](#)
- [Key Resources](#)

CLICK TO VIEW EPI CURVE GRAPHS



CLICK TO VIEW CASE COUNT MAPS