



Centers for Disease Control and Prevention
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Salmonella

Multistate Outbreak of *Salmonella* Saintpaul Infections Linked to Imported Cucumbers

Posted April 25, 2013 12:30 PM ET

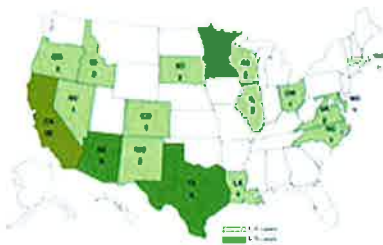
At a Glance:

- **Case Count: 73** (</salmonella/saintpaul-04-13/epi.html>)
- **States: 18** (</salmonella/saintpaul-04-13/map.html>)
- **Deaths: 0**
- **Hospitalizations: 14**
- **Recall: No**

More Information:

- Advice to Consumers (</salmonella/saintpaul-04-13/advice-consumers.html>)
- Signs & Symptoms (</salmonella/saintpaul-04-13/signs-symptoms.html>)
- Key Resources (</salmonella/saintpaul-04-13/key-resources.html>)

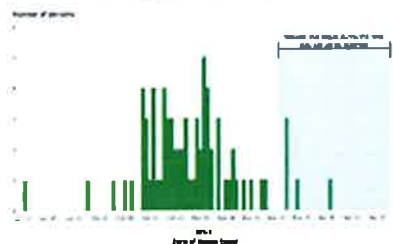
Latest Case Count Map



[\(/salmonella/saintpaul-04-13/map.html\)](/salmonella/saintpaul-04-13/map.html)

[Click map to view case count map. \(/salmonella/saintpaul-04-13/map.html\)](/salmonella/saintpaul-04-13/map.html)

Latest Epi Curve



[\(/salmonella/saintpaul-04-13/epi.html\)](/salmonella/saintpaul-04-13/epi.html)

[Click graph to view epi curve graph. \(/salmonella/saintpaul-04-13/epi.html\)](/salmonella/saintpaul-04-13/epi.html)

Highlights

- **Read the Advice to Consumers »** (</salmonella/saintpaul-04-13/advice-consumers.html>)

- A total of 73 persons infected with the outbreak strain of *Salmonella* Saintpaul have been reported from 18 states.
 - 27% of ill persons have been hospitalized, and no deaths have been reported.
- 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.
 - Preliminary information indicates that consumption of imported cucumbers is the likely source of infection for the ill persons.
- On April 24, 2013, the U.S. Food and Drug Administration placed Daniel Cardenas Izabal and Miracle Greenhouse of Culiacán, Mexico on Import Alert (http://www.accessdata.fda.gov/cms_ia/importalert_266.html)  (<http://www.cdc.gov/Other/disclaimer.html>) .
 - Cucumbers from these two firms will be denied admission into the United States unless the suppliers show that they are not contaminated with *Salmonella*.
- Currently, there is no evidence that contaminated cucumbers supplied by Daniel Cardenas Izabal and Miracle Greenhouse are still on the market.
 - Due to the time it takes between when a person becomes ill and when the illness is reported, additional ill persons may be identified.
 - Consumers and retailers should always follow safe produce handling recommendations (<http://www.fda.gov/Food/ResourcesForYou/Consumers/ucm114299.htm>)  (<http://www.cdc.gov/Other/disclaimer.html>) .
- CDC and state and local public health partners are continuing laboratory surveillance through PulseNet to identify additional ill persons and to interview ill persons about foods eaten with before becoming ill.

Initial Announcement

April 25, 2013

CDC is collaborating with public health officials in many states and the U.S. Food and Drug Administration (FDA) to investigate an outbreak of *Salmonella* Saintpaul infections linked to imported cucumbers supplied by Daniel Cardenas Izabal and Miracle Greenhouse of Culiacán, Mexico and distributed by Tricar Sales, Inc. of Rio Rico, Arizona.

Public health investigators are using the PulseNet (<http://www.cdc.gov/pulsenet/>) system to identify cases of illness that may be 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 may be part of this outbreak.

A total of 73 persons infected with the outbreak strain of *Salmonella* Saintpaul have been reported from 18 states. The number of ill persons identified in each state is as follows: Arizona (9), California (28), Colorado (1), Idaho (2), Illinois (3), Louisiana (1), Massachusetts (1), Maryland (1), Minnesota (8), Nevada (1), New Mexico (2), North Carolina (1), Ohio (1), Oregon (2), South Dakota (2), Texas (6), Virginia (2), and Wisconsin (2).

Among persons for whom information was available, illness onset dates range from January 12, 2013 to April 6, 2013. Ill persons range in age from less than 1 year to 80 years, with a median age of 23 years. Sixty percent of ill persons are female. Among 51 persons with available information, 14 (27%) ill persons have been hospitalized. No deaths have been reported.

This outbreak can be visually described with a chart showing the number of persons who became ill each day. This chart is called an epidemic curve or epi curve (</salmonella/saintpaul-04>

[-13/epi.html](#)). Illnesses that occurred after March 23, 2013 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 3 weeks. Please see the [Salmonella Outbreak Investigations: Timeline for Reporting Cases \(/salmonella/outbreaks/reporting_timeline.html\)](#) for more details.

Investigation of the Outbreak

Preliminary epidemiologic, laboratory, and traceback investigations conducted by officials in local, state, and federal public health, agriculture, and regulatory agencies indicate that exposure to imported cucumbers supplied by Daniel Cardenas Izabal and Miracle Greenhouse of Culiacán, Mexico and distributed by Tricar Sales, Inc. of Rio Rico, Arizona is the likely source of this outbreak of *Salmonella* Saintpaul infections.

In interviews, ill persons answered questions about foods eaten and other exposures during the week before becoming ill. Thirty (67%) of 45 ill persons interviewed reported eating various types of cucumbers purchased or consumed at multiple locations or restaurants. This proportion is significantly higher than results from a [survey of healthy persons](#)  [PDF - 787 KB] ([/foodnet/surveys/FNExpAtlo3022011.pdf](#)) in which 44% reported eating cucumbers in the 7 days before they were interviewed. An additional 5 (11%) of 45 ill persons reported that they may have eaten cucumbers. No other foods that were reported eaten by interviewees were associated with illness.

Reviewing shipping records, with assistance from its partner state agencies, FDA traced cucumbers eaten by six ill people to the distributor, Tricar Sales, Inc., and further, to the suppliers, Daniel Cardenas Izabal and Miracle Greenhouse. On April 24, 2013, the suppliers were placed on [Import Alert \(http://www.accessdata.fda.gov/cms_ia/importalert_266.html\)](#)  ([http://www.cdc.gov/Other/disclaimer.html](#)). Cucumbers from these two firms will be denied admission into the United States unless the suppliers show that they are not contaminated with *Salmonella*.

The number of illnesses reported has declined substantially since a peak in early March. Currently, there is no evidence that contaminated cucumbers are still on the market. However, due to the time it takes between when a person becomes ill and when the illness is reported, additional ill persons may be identified. CDC and state and local public health partners are continuing laboratory surveillance through PulseNet to identify additional ill persons and to interview ill persons about foods eaten with before becoming ill.

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

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