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Salmonella

Multistate Outbreak of *Salmonella* Bredeney Infections Linked to Peanut Butter Manufactured By Sunland, Inc. (Final Update)

Posted November 30, 2012 12:15 PM ET

This outbreak appears to be over. However, *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 \(/salmonella/index.html\)](/salmonella/index.html) and the [CDC Vital Signs Web Page \(/VitalSigns/FoodSafety/\)](/VitalSigns/FoodSafety/).

At a Glance:

- **Case Count: 42** (</salmonella/bredeney-09-12/epi.html>)
- **States: 20** (</salmonella/bredeney-09-12/map.html>)
- **Deaths: 0**
- **Hospitalizations: 10**
- **Recall: Yes** (</salmonella/bredeney-09-12/advice-consumers.html>)

More Information:

- Recall & Advice to Consumers (</salmonella/bredeney-09-12/advice-consumers.html>)
- Signs & Symptoms (</salmonella/bredeney-09-12/signs-symptoms.html>)
- Key Resources (</salmonella/bredeney-09-12/key-resources.html>)

Highlights

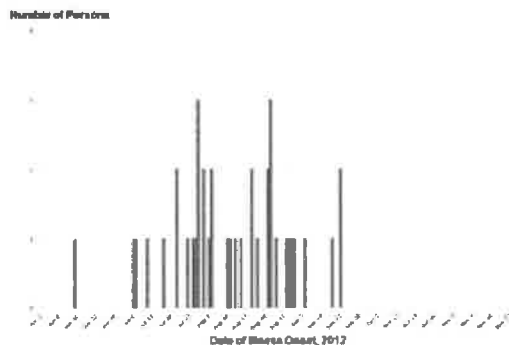
- **Read the Advice to Consumers »** (</salmonella/bredeney-09-12/advice-consumers.html>)
- A total of 42 persons infected with the outbreak strain of *Salmonella* Bredeney were reported.
 - 28% of ill persons were hospitalized, and no deaths were reported.
 - 61% percent of ill persons were children under the age of 10 years.
- Collaborative investigation efforts of state, local, and federal public health and regulatory agencies identified that a batch of Peanut Butter, manufactured by Sunland, Inc. of Portales, New Mexico, was a likely source of this outbreak.
 - On November 14, 2012, [FDA issued a document that lists observations](#)  [PDF - <http://www.fda.gov/downloads/AboutFDA/CentersOffices/OfficeofGlobalRegulatoryOperations/CDER/CDERFOIAElection/CDERFOIAElection.pdf>] (<http://www.cdc.gov/Other/disclaimer.html>) made by FDA investigators during inspection.
 - On November 26, 2012, FDA suspended Sunland, Inc.'s food facility registration (<http://www.fda.gov/AboutFDA/CentersOffices/OfficeofFoods/CFSAN/CFSANFOIAElection/CDERFOIAElection.pdf>) (<http://www.cdc.gov/Other/disclaimer.html>), prohibiting Sunland, Inc. from introducing

- ## Latest Case Count Map



(/salmonella/bredeney-09-12/map.html)

Latest Epi Curve



(/salmonella/bredenev-00-10/eni.html)

Outbreak Summary ↑ (#top)

Introduction

Public health investigators used DNA "fingerprints" of *Salmonella* bacteria obtained through diagnostic testing with pulsed-field gel electrophoresis (PFGE) to identify cases of illness that were part of this outbreak. They used data from PulseNet ([/pulsenet/](http://pulsenet/)), 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.

A total of 42 individuals infected with the outbreak strain of *Salmonella* Bredeney were reported from 20 states: Arizona (1), California (7), Connecticut (3), Illinois (1), Louisiana (1), Massachusetts (3), Maryland (1), Michigan (1), Minnesota (1), Missouri (2), New Jersey (2), New Mexico (1), New York (2), Nevada (1), North Carolina (3), Pennsylvania (2), Rhode Island (1), Texas (5), Virginia (2), West Virginia (2).

Among 39 persons for whom information was available, illness onset dates ranged from June 14, 2012 to September 21, 2012. Ill persons ranged in age from less than 1 year to 79 years, with a median age of 7 years. Sixty-one percent of ill persons were children under the age of 10 years. Fifty-nine percent of ill persons were male. Among 36 persons with available information, 10 (28%) reported being hospitalized, and no deaths were reported.

This particular outbreak appears to be over. However, many of these products have a long shelf-life, and they may still be in peoples' homes. Consumers unaware of the recall could continue to eat these products and potentially get sick.

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 \(/salmonella/general/prevention.html\)](http://www.cdc.gov/salmonella/general/prevention.html).

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 Trader Joe's Valencia Peanut Butter, manufactured by Sunland, Inc. of Portales, New Mexico.

In interviews, ill persons answered questions about foods consumed and other exposures during the week before becoming ill. Twenty-five (78%) of 33 ill persons interviewed reported shopping at Trader Joe's locations across the United States. Twenty-three (92%) of 25 ill persons report eating Trader Joe's Valencia Creamy Salted Peanut Butter made with Sea Salt in the week before becoming ill. Two (8%) of 25 ill persons report eating Trader Joe's Valencia Peanut Butter with Roasted Flaxseed. Trader Joe's Valencia Creamy Salted Peanut Butter made with Sea Salt and Valencia Peanut Butter with Roasted Flaxseed are manufactured by Sunland, Inc. All 25 (100%) of these ill persons reported eating one of the two Trader Joe's branded peanut butters covered by the Sunland, Inc. recall [\[PDF -11 pages\]](http://www.sunlandinc.com/788/html/pdfs/SunlandRecall.pdf) (<http://www.sunlandinc.com/788/html/pdfs/SunlandRecall.pdf>) (<http://www.cdc.gov/Other/disclaimer.html>).

On September 22, 2012, [Trader Joe's voluntarily recalled its Creamy Salted Valencia Peanut Butter](http://www.fda.gov/Safety/Recalls/ucm320579.htm) (<http://www.fda.gov/Safety/Recalls/ucm320579.htm>) (<http://www.cdc.gov/Other/disclaimer.html>) and removed the product from all store shelves. The product was manufactured for Trader Joe's by Sunland, Inc., of Portales, New Mexico. On September 24, 2012, [Sunland, Inc. announced a voluntary recall of its peanut butter and other products containing nuts and seeds](http://www.fda.gov/Safety/Recalls/ucm323824.htm) (<http://www.fda.gov/Safety/Recalls/ucm323824.htm>) (<http://www.cdc.gov/Other/disclaimer.html>), manufactured between May 1, 2012 and September 24, 2012. The Sunland, Inc. recall was further expanded on October 4, 2012 and October 12, 2012, to include over 300 products, including raw and roasted shelled and in-shell peanuts.

Testing conducted by the Washington State Department of Agriculture laboratory, the New Jersey Department of Health laboratory, and the Virginia Division of Consolidated Laboratory Services isolated the outbreak strain of *Salmonella* Bredeney from opened jars of Trader Joe's Valencia Creamy Peanut Butter made with Sea Salt collected from ill persons' homes.

The U.S. Food and Drug Administration (FDA) conducted an inspection of Sunland, Inc. manufacturing facilities in Portales, New Mexico  [PDF -11 pages] (<http://www.fda.gov/downloads/AboutFDA/CentersOffices/OfficeofGlobalRegulatoryOperationsandPoli>)  (<http://www.cdc.gov/Other/disclaimer.html>) between September 17, 2012 and October 16, 2012. During this inspection investigators found that conditions in the company's facility, the company's manufacturing processes, and the company's testing program for *Salmonella* may have allowed peanut butter that contained *Salmonella* to be distributed by the company.

Five product samples collected and analyzed by FDA from Sunland Inc. showed the presence of *Salmonella*, but had not been identified as containing *Salmonella* by Sunland Inc.'s internal testing. Among those products were peanut butter and shelled raw peanuts. Two of these samples showed the presence of the outbreak strain of *Salmonella* Bredeney. Additionally, during its inspection of the plant in September – October 2012, FDA found the presence of *Salmonella* in 28 environmental samples. Three of these samples showed the presence of the outbreak strain of *Salmonella* Bredeney.

On November 26, 2012, FDA suspended Sunland, Inc.'s food facility registration (<http://www.fda.gov/AboutFDA/CentersOffices/OfficeofFoods/CFSAN/CFSANFOIAElectronicReadingR>)  (<http://www.cdc.gov/Other/disclaimer.html>), prohibiting Sunland, Inc. from introducing food into interstate or intrastate commerce. FDA will reinstate Sunland, Inc.'s registration only when FDA determines that the company has implemented procedures to produce safe products.

Progression of the Outbreak Investigation (#onpage)

November 30, 2012

Final Case Count Update

A total of 42 persons infected with the outbreak strain of *Salmonella* Bredeney were reported from 20 states. One new case was reported from North Carolina since the last update on November 8, 2012.

Among persons for whom information was available, illness onset dates ranged from June 14, 2012 to September 21, 2012. Ill persons ranged in age from less than 1 year to 79 years, with a median age of 7 years. Sixty-one percent of ill persons were children under the age of 10 years. Fifty-nine percent of ill persons were male. Among 36 persons with available information, 10 (28%) patients were hospitalized. No deaths were reported.

This particular outbreak appears to be over. However, many of these products have a long shelf-life, and they may still be in peoples' homes. Consumers unaware of the recall could continue to eat these products and potentially get sick.

November 8, 2012

Case Count Update

A total of 41 persons infected with the outbreak strain of *Salmonella* Bredeney have been reported from 20 states. Three new cases have been reported from three states since the last update: New York (1), North Carolina (1) and Virginia (1).

Among persons for whom information is available, illness onset dates range from June 14, 2012, to September 21, 2012. Ill persons range in age from less than 1 year to 79 years, with a median age of 6 years. Sixty-three percent of ill persons are children under the age of 10

years. Sixty percent of ill persons are male. Among 36 persons with available information, 10 (28%) patients reported being hospitalized. No deaths have been reported.

Illnesses that occurred after October 5, 2012, might not be reported yet due to the time it takes between when a person becomes ill and when the illness is reported. The numbers of new cases have declined substantially since the peak in August, but illnesses are still being reported among people who ate the recalled brands of peanut butter after the recall. Many of these products have a long shelf-life. If consumers are unaware that they have recalled products in their home and continue to consume them, the outbreak could continue at a low level for several months.

Investigation Update

Testing conducted by the New Jersey Department of Health, Virginia Division of Consolidated Laboratory Services, and Washington State Department of Agriculture laboratories isolated the outbreak strain of *Salmonella* Bredeney from opened jars of Trader Joe's Valencia Creamy Peanut Butter collected from case-patients' homes.

October 24, 2012

Case Count Update

A total of 38 persons infected with the outbreak strain of *Salmonella* Bredeney have been reported from 20 states. Three new cases have been reported from two states since the last update on October 5, 2012: California (2) and New Mexico (1).

Among persons for whom information is available, illness onset dates range from June 14, 2012 to September 21, 2012. Ill persons range in age from less than 1 year to 79 years, with a median age of 7 years. Sixty-six percent of ill persons are children under the age of 10 years. Sixty-two percent of ill persons are male. Among 35 persons with available information, 10 (29%) patients reported being hospitalized. No deaths have been reported.

Illnesses that occurred after September 13, 2012 might not be reported yet due to the time it takes between when a person becomes ill and when the illness is reported.

October 15, 2012

Investigation Update

Analysis conducted by the U.S. Food and Drug Administration (FDA) has confirmed that environmental samples showing the presence of *Salmonella* bacteria (<http://www.fda.gov/Food/FoodSafety/CORENetwork/ucm320413.htm>)  (<http://www.cdc.gov/Other/disclaimer.html>) in Sunland's nut butter facility have a DNA fingerprint that is the same as the outbreak strain of *Salmonella* Bredeney.

Sunland, Inc. reports that it has ceased the production and distribution of all products from both its nut butter facility and its peanut processing facility.

FDA is currently conducting an inspection of Sunland, Inc. manufacturing facilities in Portales, New Mexico.

Recall Update

On October 12, 2012, Sunland, Inc. further expanded its ongoing recall to include raw and roasted shelled and in-shell peanuts (<http://www.fda.gov/Safety/Recalls/ucm323824.htm>) 

(<http://www.cdc.gov/Other/disclaimer.html>) sold in quantities from 2 ounces to 50 pounds which are within their current shelf life or have no stated expiration date.

FDA testing found the presence of *Salmonella* bacteria in raw peanuts from the peanut processing facility.

October 5, 2012

Case Count Update

A total of 35 persons infected with the outbreak strain of *Salmonella* Bredeney have been reported from 19 states. Five new cases have been reported from three states since September 25, 2012: California (3), Missouri (1), and Texas (1).

Among persons for whom information is available, illness onset dates range from June 14, 2012 to September 18, 2012. Ill persons range in age from less than 1 year to 79 years, with a median age of 7 years. Sixty-three percent of ill persons are children under the age of 10 years. Sixty-three percent of ill persons are male. Among 30 persons with available information, 8 (27%) patients reported being hospitalized. No deaths have been reported.

Illnesses that occurred after August 27, 2012 might not be reported yet due to the time it takes between when a person becomes ill and when the illness is reported.

Investigation Update

Twenty-one (75%) of 28 ill persons interviewed report shopping at Trader Joe's locations across the United States. Twenty-one (100%) of Trader Joe's shoppers reported purchasing and eating peanut butter from Trader Joe's. Nineteen (90%) of 21 ill persons report eating Trader Joe's Valencia Creamy Salted Peanut Butter made with Sea Salt in the week before becoming ill. Two (10%) of 21 ill persons report eating Trader Joe's Valencia Peanut Butter with Roasted Flaxseed. Trader Joe's Valencia Creamy Salted Peanut Butter made with Sea Salt and Valencia Peanut Butter with Roasted Flaxseed are manufactured by Sunland, Inc. All 21 (100%) of these ill persons reported eating one of the two Trader Joe's branded peanut butters covered by the Sunland recall  [PDF - 5 pages] (<http://www.sunlandinc.com/788/html/pdfs/SunlandRecall.pdf>)  (<http://www.cdc.gov/Other/disclaimer.html>).

Testing conducted by the Washington State Department of Agriculture laboratory isolated the outbreak strain of *Salmonella* Bredeney from an opened jar of Trader Joe's Valencia Creamy Peanut Butter collected from a case-patient's home.

The U.S. Food and Drug Administration (FDA) is currently conducting an inspection of Sunland, Inc. manufacturing facilities in Portales, New Mexico. On October 5, 2012 the FDA announced that environmental samples taken in the Sunland Inc. nut butter production facility (<http://www.fda.gov/Food/FoodSafety/CORENetwork/ucm320413.htm>)  (<http://www.cdc.gov/Other/disclaimer.html>) show the presence of *Salmonella*. Further analysis to identify the type of *Salmonella* is pending. Environmental samples are samples taken from various surfaces in the production or manufacturing facility that would likely harbor bacteria.

September 25, 2012

Case Count Update

A total of 30 persons infected with the outbreak strain of *Salmonella* Bredeney have been reported from 19 states. The number of ill people identified in each state with the outbreak strain is as follows: Arizona (1), California (2), Connecticut (3), Illinois (1), Louisiana (1), Massachusetts (3), Maryland (1), Michigan (1), Minnesota (1), Missouri (1), Nevada (1), New Jersey (2), New York (1), North Carolina (1), Pennsylvania (2), Rhode Island (1), Texas (4), Virginia (1), and Washington (2).

Among persons for whom information is available, illness onset dates range from June 11, 2012 to September 11, 2012. Ill persons range in age from less than 1 year to 77 years, with a median age of 7 years. Sixty-three percent of ill persons are children under the age of 10 years. Sixty-six percent of ill persons are male. Among 13 persons with available information, 4 (31%) patients reported being hospitalized. No deaths have been reported.

Illnesses that occurred after August 30, 2012 might not be reported yet due to the time it takes between when a person becomes ill and when the illness is reported.

Initial Announcement

September 22, 2012

CDC is collaborating with public health officials in several states and the U.S. Food and Drug Administration (FDA) to investigate a multistate outbreak of *Salmonella* Bredeney infections. Preliminary results from this ongoing joint investigation indicate that Trader Joe's Valencia Creamy Salted Peanut Butter made with Sea Salt is a likely source of this outbreak.

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/), 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.

A total of 29 ill persons infected with the outbreak strain of *Salmonella* Bredeney have been reported from 18 states. This number may change as more cases are confirmed.

Among persons for whom information is available, illness onset dates range from June 11, 2012 to September 2, 2012. Ill persons range in age from less than 1 year to 77 years, with a median age of 7 years. Seventy-six percent of ill persons are children under 18 years old. Sixty-four percent of ill persons are male. Among 11 ill persons with available information, 4 (36%) reported being hospitalized. No deaths have been reported.

This PFGE pattern has rarely been seen before in PulseNet, and in the past typically caused 5-8 cases per year. Illnesses that occurred after August 29, 2012 might not be reported yet due to the time it takes between when a person becomes ill and when the illness is reported.

Page last reviewed: August 29, 2012

Page last updated: November 30, 2012

Content source: Centers for Disease Control and Prevention
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