



Salmonella Enteritidis Outbreak Linked to Frozen, Raw, Breaded, Stuffed Chicken Products

Outbreak Investigation After Action Review, Report 2021-07

Highlights

- Fourteen outbreaks associated with not ready-to-eat (NRTE) frozen, raw, breaded, stuffed chicken products have been investigated by public health officials since 1998. Prior to this 2021 outbreak, the last multistate outbreak of NRTE stuffed chicken products [was in 2015](#).
- In this investigation, some consumers reportedly did not cook the stuffed chicken products using a validated process (oven), as described on the product label, to ensure that the product was thoroughly cooked to an internal temperature of 165°F. Instead, some consumers reported using a microwave or air fryer and did not use a meat thermometer to verify proper internal temperature.
- As a result of this outbreak, and previous outbreaks associated with these products, FSIS sought advice from the [National Advisory Committee on Meat and Poultry Inspection \(NACMPI\)](#), which advises FSIS on matters affecting Federal inspection program activities. FSIS is currently assessing the recommendations.

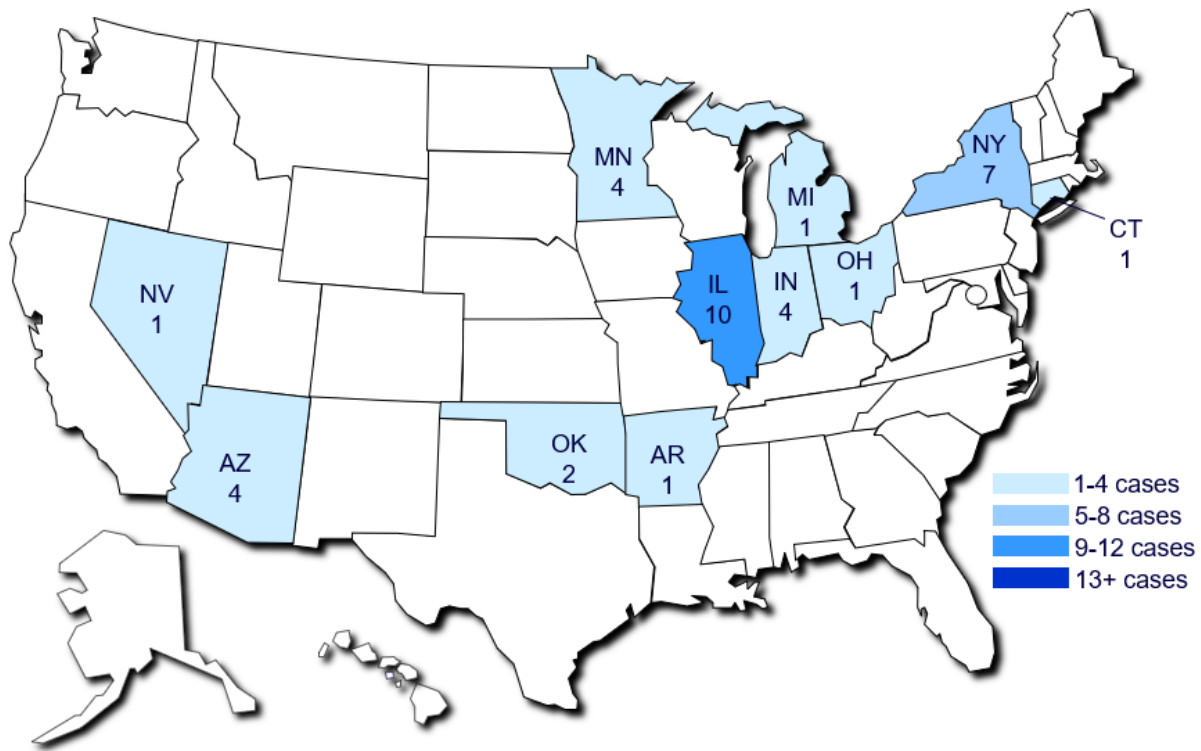
Outbreak at a Glance

Illnesses	36
States included	11
Hospitalizations	12
Deaths	0

Response at a Glance

Investigative samples tested by FSIS and state partners	9
Recall or Public Health Alert	Yes

Ill persons infected with *Salmonella* Enteritidis by state of residence, N = 36



What happened?

From April through August 2021, state public health officials, the Centers for Disease Control and Prevention (CDC), and FSIS investigated an outbreak of 36 *Salmonella* Enteritidis illnesses linked to NRTE stuffed chicken products. Ill people reported preparing and eating these products, and some reported that they did not follow the manufacturer's cooking instructions on the label. Instead, some people reported that they cooked the product in a microwave, air fryer, or for a shorter time than recommended in a conventional oven, and they did not use a food thermometer to check that the product reached an internal temperature of 165°F as instructed on the product label. The Minnesota Department of Agriculture conducted retail product sampling of these products as part of the investigation and isolated the outbreak strain. Based on the strong epidemiologic information and product sampling results, FSIS posted a [public health alert](#) and CDC posted an [investigation notice](#) on June 2, 2021, to alert the public that ill people had reported eating NRTE stuffed chicken prior to illness onset. FSIS collected unopened packages of NRTE stuffed chicken from the homes of two ill people. One leftover product tested positive for the outbreak strain. FSIS traced

the product to an FSIS-regulated establishment, and on August 9, 2021, the establishment voluntarily [recalled](#) the affected products.

Lessons learned from NRTE stuffed chicken outbreaks

Review of 2015 Outbreak



After the 2015 outbreak, FSIS conducted an [after action review](#) (AAR). The AAR mentioned exploratory sampling of these products as an action that the Agency would consider; however, FSIS ultimately did not take this action because establishments involved in the 2015 outbreak took corrective actions to address *Salmonella* contamination. Establishments also changed labels to improve consumer understanding on how to safely handle and cook the product, and no additional multistate outbreaks occurred until the 2021 outbreak.



NACMPI Recommendations

Following the 2021 outbreak, FSIS sought advice from NACMPI regarding additional preventive actions FSIS could consider. Below are some of the recommendations from NACMPI:

- Review labels and cooking instructions
- Review establishment food safety programs
- Update FSIS labeling guidance to industry
- Consider exploratory sampling for *Salmonella* and indicators in product
- Conduct further consumer research
- Conduct consumer outreach to encourage thermometer use
- Create an FSIS webpage to address these specific products to give visual cues and guidance for safe consumer handling and preparation
- FSIS is currently considering NACMPI recommendations and other potential Agency response to the latest outbreak.

What can you do to prevent or solve the next NRTE stuffed chicken outbreak?

Industry

Establishments that produce NRTE stuffed chicken products should reassess their hazard analysis and critical control points plans and review their labels and validated cooking instructions.

Consider addressing *Salmonella* contamination in source materials used for manufacturing of NRTE stuffed chicken products, knowing the finished product may appear ready-to-eat to consumers.

Consider updating the images of the product on the package to make the product appear to be raw or uncooked.

Public Health Partners

Continue to work closely with local, state, and federal partners to detect and investigate outbreaks. Email FoodborneDiseaseReports@usda.gov to notify FSIS if FSIS-regulated products may be involved in an outbreak.

Consider including questions regarding NRTE stuffed chicken products to the *Salmonella* illness questionnaire.

Consumers

Follow the manufacturer's cooking instructions on product packaging. Do not use microwaves, convection ovens, or air fryers to cook these products unless there are specific cooking instructions for those appliances on the product package. After cooking, use a meat thermometer to measure that the internal temperature rises to 165°F. [A meat thermometer must be inserted in the center of the thickest part of the product of both the poultry and stuffing component to take the reading.](#)

If you feel ill, seek treatment from a health care provider and document all food eaten up to 7 days prior to illness.

Helpful Links

- [FSIS Recall 28-2021](#), August 9, 2021
- [FSIS Public Health Alert](#), June 2, 2021
- [CDC Food Safety Alert](#), October 13, 2021

- NACMPI:
 - [Public Meeting](#)
 - [Federal Register Notice](#)
 - [Stuffed Chicken Presentation](#)
 - [Stuffed Chicken Meeting Transcript](#)
 - [Stuffed Chicken Recommendations from Sub Committee II](#)
- [FSIS Consumer Research on Stuffed Chicken](#)
- [Doneness versus Safety](#)
- [Report a Problem with Food | Food Safety and Inspection Service \(usda.gov\)](#)
- [FSIS Outbreak Page](#)