

Salmonella Schwarzengrund Illness Outbreak Associated with Ground Turkey, 2019

After-Action Review Report 2019-06

January 3, 2020

Overview

During February–May 2019, public health officials in Wisconsin, Minnesota, North Carolina, the Centers for Disease Control and Prevention (CDC), and the Food Safety and Inspection Service (FSIS) investigated an outbreak of seven *Salmonella* Schwarzengrund illnesses linked to ground turkey produced by an FSIS-regulated establishment (Establishment A). A Minnesota food bank (Food Bank B) supplied the ground turkey to a Wisconsin residential facility (Residential Facility C) and a Minnesota food pantry (Food Pantry D). Three ground turkey samples from Residential Facility C were positive for the outbreak strain of *Salmonella* Schwarzengrund. On March 13, 2019, Establishment A voluntarily recalled the ground turkey products. The FSIS outbreak notification email address (FoodborneDiseaseReports@usda.gov) was used to quickly and effectively notify FSIS of this outbreak. Early and consistent communication between government partners and industry during outbreak investigations can facilitate collaborative response.

Epidemiology

- On February 14, 2019, the Wisconsin Department of Agriculture, Trade, and Consumer Protection (WDATCP) notified FSIS through the FSIS outbreak notification email address (FoodborneDiseaseReports@usda.gov) that Wisconsin officials were investigating a cluster of *Salmonella* Schwarzengrund illnesses (see Table 1 for epidemiologic details).
- Molecular subtyping techniques were used to assess the relatedness of bacterial isolates and determine the outbreak strain.
- Five (71%) of the seven case-patients either lived in Residential Facility C where ground turkey was served (four case-patients) or reported eating ground turkey at home purchased from Food Pantry D (one case-patient).

Table. Case-patient characteristics—*Salmonella* Schwarzengrund outbreak associated with ground turkey, 2019.

Total number of case-patients and states of residence	7 case-patients from 3 states (see CDC map of reported cases)
Illness onset date range	December 19, 2018—March 16, 2019 (see CDC timeline of reported cases)
Age range (median) in years	<1–71 (46)
Percent female	86
Number of reported hospitalizations	1
Number of reported deaths	0

Traceback Investigation

- FSIS investigators and officials in Wisconsin and Minnesota obtained information from Food Bank B, Residential Facility C, and Food Pantry D to determine the source of the ground turkey.
- Ground turkey produced by Establishment A in North Carolina was supplied by Food Bank B to Residential Facility C and Food Pantry D.

Environmental Assessment

- FSIS investigators and officials in Wisconsin visited Residential Facility C to review menus and food thermometer use; findings suggested the product may have been inadequately cooked prior to consumption.

Product Sampling

Routine Sampling

- The following samples of ground turkey produced by Establishment A were positive for *Salmonella* Schwarzengrund; these isolates were similar to the outbreak strain by molecular subtyping:
 - Two samples collected by FSIS from Establishment A (one in 2016, one in 2018).
 - Three samples collected at retail in Pennsylvania (two in 2017, one in 2019) as part of the [National Antimicrobial Resistance Monitoring System](#).

Investigative Sampling

- Minnesota officials visited Food Pantry D and collected two intact (unopened packaging) samples of ground turkey produced by Establishment A; these samples were negative for *Salmonella*.
- Wisconsin officials visited Residential Facility C and collected five intact ground turkey samples produced by Establishment A.
 - Two samples were negative for *Salmonella*.
 - Three samples were positive for the outbreak strain of *Salmonella* Schwarzengrund.
 - Per its [Policy on Use of Results from Non-FSIS Laboratories](#) (FSIS Directive 10,000.1), FSIS assessed and accepted these results.

Industry, Public Health, and Regulatory Actions

- Establishment A voluntarily [recalled](#) approximately 78,164 pounds of raw, ground turkey products (produced on July 7, 2018) on March 13, 2019.
- The Wisconsin Department of Health Services and WDATCP issued a joint [News Release](#) on March 14, 2019.
- CDC published a Food Safety Alert on March 14, 2019 ([final update May 7, 2019](#)).

Lessons Learned and Related Policy

Communication between partners

- Early collaboration between state partners expedited this investigation.
- WDATCP used the FSIS outbreak notification email address (FoodborneDiseaseReports@usda.gov) to quickly and effectively notify FSIS of this outbreak; public health partners are encouraged to continue using this method to notify FSIS of outbreaks that may be associated with FSIS-regulated products and to request illness-related information from FSIS.
- It is important to keep lines of communication between investigating partner agencies open during traceback and throughout the investigation; early collaboration between federal and state partners will help facilitate coordinated investigations and could reduce duplication of effort.

Communication with industry

- To facilitate collaborative outbreak response, FSIS will communicate with involved industry and public health partners in accordance with the procedures outlined in [FSIS Directive 8080.3, Foodborne Illness Investigations](#), including:
 - Inform a firm when it is determined that a potential association exists between illness and the firm's product;
 - Notify a firm when the firm's product has been collected for testing as part of the investigation; and
 - Develop a plan for sharing information with a firm in a consistent manner throughout the investigation.

Helpful Links

- [FSIS Recall 030-2019, March 13, 2019](#)
- [Wisconsin Department of Health Services and Wisconsin Department of Agriculture, Trade, and Consumer Protection Joint News Release, March 14, 2019](#)
- [CDC Food Safety Alert, May 7, 2019 \(final update\)](#)
- National Antimicrobial Resistance Monitoring System informational webpages: [FSIS](#); [Food and Drug Administration](#) ; [CDC](#)

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